Evidentials as argumentative indicators in the argumentative activity type of earnings conference calls

A dissertation presented by
Costanza Lucchini

Supervised by
Prof. Andrea Rocci
Prof. Johanna Miecznikowski-Fünfschilling

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Dissertation Committee

Thesis Director: **Prof. Andrea Rocc**i, Università della Svizzera italiana

Thesis Co-director: **Prof. Johanna Miecznikowski-Fuenfschilling**, Università della Svizzera italiana

External members:

Prof. Marlies Whitehouse, ZHAW, Switzerland

Prof. Steve Oswald, Université de Fribourg, Switzerland

Jury President:

Prof. Léna Pellandini, Università della Svizzera italiana

A mia mamma, che mi ha trasmesso la forza
e a mio papà, che mi ha trasmesso la profondità.

Concern for the man himself and his fate must always form the chief interest of all technical endeavors […]. Never forget this in the midst of your diagrams and equations.

(Albert Einstein, 1931)

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Abstract

This dissertation investigates the role of evidential expressions in argumentative discourse, taking as a case study their deployment in earnings conference calls (ECCs) – a key genre of institutional financial communication in which listed companies' managers present results and financial analysts pose questions.

Evidentials – linguistic markers encoding the source of knowledge – represent a valuable tool for observing the distribution of knowledge and mapping informational asymmetry in dialogue. Beyond their epistemic function, evidentials have been shown to serve as argumentative indicators. This dissertation investigates precisely this dual pragmatic and argumentative function, asking how evidentials are deployed by managers and analysts in pursuit of their respective institutional goals, how they relate to argumentative structure and argument schemes, and how their systematic use gives rise to recurrent evidential argumentative patterns reflecting the institutional logic of the genre. At the theoretical level, the study further examines the relationship among activity type, argumentative indicators, and argumentative patterns.

To address these questions, the study analyses the function of evidentials in a corpus of 16 ECCs held by four publicly listed companies across the financial year 2021. The study adopts a mixed-method approach, combining quantitative corpus analysis of evidential distribution with qualitative reconstruction of arguments based on Pragma-Dialectics and the Argumentum Model of Topics.

The results shed light on the connections between evidentiality, argumentative function, and institutional context. First, managers and analysts display qualitatively distinct evidential profiles reflecting their asymmetric epistemic positions: managers rely predominantly on direct and subjective evidentials to construct epistemic authority and manage accountability, while analysts favour hearsay and inferential evidentials to legitimize their questions and project professional credibility. Second, evidentials function as reliable macro-level argumentative indicators, systematically associated with specific *argumentative moves* (premises and conclusions), with direct, hearsay, and common knowledge evidentials tending to occur in premises and inferential and subjective evidentials in conclusions. Third, at the micro-argumentative level, each evidential type instantiates recognizable argument schemes contributing in distinct ways to the justificatory force of the moves in which they appear. Fourth, the study introduces and operationalizes the concept of *evidential argumentative patterns*, demonstrating through

the detailed analysis of *hearsay-prefaced questions* that these configurations function simultaneously as arguments from authority, justifications of the questioning act, and interactional strategies for managing epistemic positioning, constituting a defining feature of analysts' discourse in ECCs. The findings contribute to research on evidentiality and argumentation in financial discourse and point to promising directions for future research, including corpus-based and computational applications.

Keywords: *evidentiality*, *argumentation*, *earnings conference calls*, *knowledge management*, *argumentative indicators*, *argumentative patterns*, *Pragma-Dialectics*, *Argumentum Model of Topics*

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1. General Introduction

> *[…] the most typical and comprehensive sign of reasonableness is the effort to take into account all factors that are relevant for the concerned issue.*
>
> *(Rigotti and Greco Morasso, 2009:24)*

> *Argumentation is reason applied to life, in its pragmatic dimension: it does not tend to concern knowledge but action. And action does not operate in the sphere of general principles and stable structures of reality, but within the realm of what can be changed, done, destroyed by human intervention. I cannot change the hours of the sun, but I can produce artificial light; I cannot change the seasons, but I can produce heat and cold; I can build houses, create information systems, harm or help my neighbour, promote or damage the natural balance, foster healthy or perverse consensus, resolve a conflict or provoke it…*
>
> *(Rigotti and Greco, 2005:23, my translation)*

1.1. Preamble. What is this work about

This dissertation investigates the use of evidential expressions in earnings conference calls (ECCs), a key genre of financial communication in which listed companies' managers present results and financial analysts pose questions, challenging corporate viewpoints and probing the company's prospects and valuation (Crawford-Camiciottoli, 2013; Palmieri et al., 2015).

ECCs represent a key communicative event in the financial domain affecting investors' decisions and, in turn, market outcomes (Lev, 2012). Studies of argumentation in ECCs (Palmieri et al., 2015; Rocci and Raimondo, 2017) have shown that argumentation represents a significant factor of the value of these events for the markets, and ECCs can be therefore characterized as an argumentative activity type (Levinson, 1979; van Eemeren, 2010; 2018). Managers and analysts have different goals and different epistemic statuses (Heritage, 2012): while managers as insiders hold all the relevant information and have the power to choose what is strategic to disclose, analysts are outsiders who need to acquire relevant information for their evaluations, generating an informative asymmetry. For this reason, mapping knowledge and reconstructing the arguments provided are relevant in understanding these communicative events.

Evidentials are linguistic markers which express the source and, to some extent, the certainty of knowledge and represent a valuable tool to observe the distribution of knowledge and mapping informative asymmetry. On the other hand, both evidentials and epistemic modals, with which evidentiality markers often overlap, have been observed to serve as *argumentative indicators* (Musi, 2014; 2015; Musi & Rocci, 2016; 2017; Rocci, 2012; 2017; Rocci et al., 2020; Miecznikowski and Musi, 2015; Miecznikowski, 2018; 2020). Argumentative indicators, i.e., "all words and expressions that refer to any of the moves that are significant to the argumentative process" (van Eemeren et al., 2007), are "keystones in discourse" that can "facilitate the identification and reconstruction" of such moves. Evidentials are here examined as epistemic resources through which participants map and negotiate informational asymmetry arising from the different epistemic statuses of managers and analysts (Heritage, 2012), as well as *argumentative indicators* that facilitate the identification and reconstruction of *argumentative moves* (van Eemeren et al., 2007), and as *micro-arguments* that contribute to the justificatory force of the propositions they frame (Lucchini et al., 2024). The term *argumentative moves* refers to all the speech acts by means of which a standpoint is advanced, questioned, defended, or concluded. As such, argumentative moves include premises and standpoints, as well as other speech acts such as counterarguments, concessions and challenges. In the present work, however, the analysis focuses primarily on premises and conclusions, and references to argumentative moves generally concern these specific types.

The analysis is conducted on a corpus consisting of the Q&A sections of sixteen ECCs held by four publicly listed companies – Airbnb, DoorDash, Shell, and Credit Suisse – across the four financial quarters of 2021. The corpus follows a thematic case-study logic: all four companies were facing significant challenges that generated a high level of uncertainty – beyond the shared context of the global pandemic. Specifically, Airbnb and DoorDash were newly listed companies still in the process of establishing credibility and market stability, while Shell and Credit Suisse were navigating sector-specific pressures. The study adopts a mixed-method approach, combining quantitative corpus analysis of evidential distribution with qualitative reconstruction of argumentative structure and function. This qualitative analysis is grounded in the Pragma-Dialectical approach – or more precisely in the reinterpretation and extension of this framework as proposed by the Lugano school (see §1.4.1 and §2.4) – and the Argumentum Model of Topics.

The present dissertation forms part of a broader research project, *Mining argumentative patterns in context. A large scale corpus study of Earnings Conference Calls of listed companies*,[1] which investigates *argumentative patterns* (i.e., recurring and significant argumentative strategies) in ECCs through a corpus-based analysis. The project's primary objective is to identify the strategies employed by participants, analyse their functioning, and determine their relationship with contextual features such as incentives, goals, constraints imposed by the activity type.

Within this framework, the present dissertation contributes by analysing the argumentative, pragmatic, and interactional functions of evidentials, and by investigating *evidential argumentative patterns* – recurring argumentative strategies in which evidential expressions play a constitutive role. In so doing, this work aims to characterize how ECCs' participants deploy these linguistic resources to present, negotiate, and manage epistemic positioning, and how such deployment contributes to their arguments in realising their interactional goals. To this end, I adopt an onomasiological and corpus-based approach in order to identify the lexemes and constructions that acquire evidential value in this specific communicative context.

The argumentative functions of evidentials are examined at two levels of analysis. At the *macro-level*, I investigate the role of evidentials as *argumentative indicators of argumentative moves* – specifically as markers of premises and conclusions – through an annotation-based analysis of their distribution across such moves. At the *micro-level*, I analyse how evidentials inherently instantiate inferential connections, functioning as arguments that justify the proposition within their scope. The Argumentum Model of Topics serves as essential tool to reconstruct the micro-arguments instantiated by evidentials and disentangle the kind of argumentative work they do.

1.2. Research field and gap

The present study has a threefold nature. It addresses *evidentiality*, a linguistic phenomenon, in its relationship with *argumentation*, understood as a particular form of communicative (inter)action aimed at justifying a claim through reasons, within the domain of *financial communication* and, more precisely, in the context of *earnings*

[1] The project, financed by the Swiss National Science Foundation (Grant number 200857), was led by Prof. Andrea Rocci (IALS, USI) and co-directed by Prof. Chris Reed (University of Dundee) and was conducted between 2021 and 2026.

conference calls. This work aims to contribute to the growing body of research on the relationship between evidentiality and argumentation, and between these two categories and interactional practices in financial discourse. Its specific focus is on how evidentials, the linguistic means by which speakers signal the source of knowledge – i.e., *how someone knows something* – are employed by corporate managers and financial analysts in ECCs in the pursuit of their interactional goals, and on the argumentative functions these evidentials serve in this context.

In this respect, this dissertation is inherently interdisciplinary, connecting three main fields: it draws on notions and analytical frameworks from *linguistics* and *argumentation* theory and applies them to the field of *financial communication* and specifically to *ECCs*. More fundamentally, it seeks to integrate argumentation and linguistics in a mutually illuminating way, and particularly to elucidate the meaning and functions of evidential constructions through their argumentative analysis. In other words, the adoption of an argumentative perspective enables a richer and more fine-grained understanding of the semantic and pragmatic values of evidentiality.

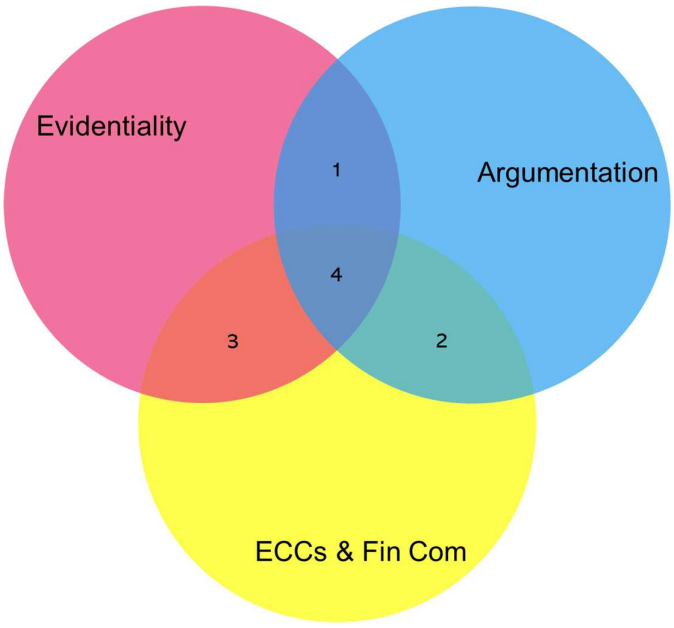


Figure 1. Research field(s) of the present dissertation

The graphic in Fig. 1 schematizes the three areas and their intersections, illustrating the interdisciplinary nature of the present work.

Extant literature exists at the intersection between linguistic study of evidentiality and argumentation studies (1), discussed in Ch. 2 and 3 (Musi, 2014; 2016; Miecznikowski and Musi, 2015; Musi and Rocci, 2016; 2017; Miecznikowski, 2020; Lucchini et al., 2024; Miecznikowski and Battaglia, 2025[2]), and previous works have been conducted on the role of argumentation in financial communication and its realization in ECCs (2), in turn discussed in Ch. 4 (Palmieri et al., 2015; Palmieri, 2018; Yaskorska-Shah et al., 2022; Lucchini et al., 2022; D'Agostino et al., 2024a; 2024b; Rocci et al., 2024; Lucchini et al., 2025; Rocci and Lucchini, 2025). Research on evidentiality in ECCs and financial communication (3) is particularly scarce (Rocci et al., 2020; Lucchini et al., 2025). While each of these three intersections presents its own specific research gaps, work connecting all three poles – argumentation, evidentiality, and ECCs – remains absent. The present dissertation is positioned precisely within this unaddressed intersection (4).

As such, it sits at the intersection of at least three distinct lines of research: the linguistics literature on evidentiality; the study of argumentation and, more specifically, the study of argumentation in context from a linguistic perspective – with particular reference to research on argumentative indicators; and the study of ECCs and of financial communication more broadly. The first two research areas form the subject matter of the theoretical chapters (Chapters 2 and 3), which survey the relevant literature and elaborate the foundational notions that will be adopted and operationalised throughout this work. The third area – prior scholarship on financial communication and ECCs in particular (Chapter 4) – provides the basis for the discussion of this genre and its characteristic interactional dynamics. Mapping the gaps identifiable within each of these three lines of research allows the precise research gap that this dissertation addresses to be situated and motivated. It is by considering what remains understudied across all three areas simultaneously that the specific contribution of this work can be most clearly articulated.

With respect to the research on evidentiality and argumentation, the study of evidentials often lack the integration with an analysis of their argumentative functions, which indeed can clarify how these markers work and are employed in discourse. Despite the already cited works – conducted by a restricted group of researchers – which investigate the

[2] As will be discussed more in details in §3.5.2.1, greater attention has been devoted in argumentation theory research on the connection between argumentation and modality, also comprising *epistemic modality* (Toulmin, 1958; Snoeck-Henkemans, 1992; 1997; Freeman, 1988; 1991; 2011; 2013; Pinto, 2007; Tseronis, 2009; Rocci 2008; 2009; 2017).

relationship between argumentation and evidentials, these attempts remain limited. Most importantly, in these studies the focus is always either the micro- or the macro-argumentative level, and systematic analysis that integrates these two dimensions is lacking. In a way, these works either verify evidentials' role as indicators of moves or investigate the type of inferential configuration they evoke, without connecting the two aspects.

Another relevant research gap concerns the study on ECCs. As will be discussed more in details in Ch. 4 (§4.4 and §4.4.1), ECCs have been investigated in a research tradition in finance and accounting (e.g., Bushee et al., 2003; Brown et al., 2004; Frankel et al., 1999; Tasker, 1998; Bowen et al., 2002; Cohen et al., 2012; Davis et al., 2015; Chen et al., 2018; Rennekamp et al., 2022; Lee, 2016) as well as in linguistics-informed studies in business communication, employing ECCs as a testbed to verify and improve notions and methodologies from linguistics (Crawford Camiciottoli, 2007, 2009, 2010, 2011, 2013; Palmieri, 2008b; Hollander et al., 2010; Price et al., 2012; Dzielinski et al., 2017; Abraham and Bamber, 2017; Keith and Stent, 2019; De Amicis et al., 2021; Koller and Wu, 2023; Garcia et al., 2023).

From the overview of the research conducted on ECCs it emerges that, firstly, that research on linguistic and interactional features of ECCs are mainly based on quantitative methodologies, sentiment analysis or impression management. Fine-grained qualitative investigations that discuss in depth linguistic strategies employed by managers and analysts and connect them with their incentives are lacking.

Secondly, the research on argumentation in financial communication and in ECCs is only at the beginning. Although it recently gained more prominence, with the abovementioned studies on the rhetorical and argumentative features of financial genres and ECCs in particular, it is far from being settled.

As I will discuss below, argumentation is not only a methodological framework or an analytical tool: acquiring an argumentative perspective on discourse means looking at it through the lens of *reasonableness*, analysing dialogical exchanges (but also monological interventions) from the perspective of the reasoning that is proposed. In investigating financial communication, argumentation, as will be argued in Ch. 4 (§4.3.1), represents an alternative to *impression management*: instead of considering by default rhetorical strategies as inherently and voluntarily deceitful, it considers that rhetorics can be a

constructive tool, and provides the means to evaluate whether a discourse is in fact manipulative or not.

Furthermore, as already pointed at above, studies on evidentiality (and epistemic modality) in ECCs are almost completely absent, with the exception of the exploratory work conducted by Rocci, Raimondo and Puccinelli (2020). This lack is particularly relevant as discursive knowledge management and negotiation in ECCs – as well as in similar asymmetric professional interactions – is a key aspect. Mapping how participants employ evidentials in ECCs allows to shed lights on their strategical display of information and source management, and, as Rocci et al. (2020) show, can reveal important points of disagreements. They also show that evidentials correlate with argumentative moves in ECCs, thus paving the way for the present work. Their investigation, however, is a quantitative exploration of a large corpus of ECCs that adopt a semasiological approach, relying on a list of presumed evidential expressions derived from the literature. In this way, they risk missing significant constructions that assume an evidential value but that are not in previous literature or dictionaries as peculiar of the genre of ECCs. A further step in this line of research is represented by the analysis presented in Lucchini et al. (2025). While that study advances the investigation by offering a more focused examination of evidential phenomena in ECCs, its scope remains necessarily more limited in depth and breadth, thereby opening the way for the more extensive qualitative treatment developed in the present dissertation. In particular, it does not yet integrate a systematic analysis of the argumentative functions of evidentials, which constitutes one of the central contributions of the present work.

An important topic that has been neglected in argumentation studies is that of *argumentative patterns*. More specifically, while some theoretical studies in the Pragma-Dialectical tradition discuss this notion and tentatively apply it to some contexts, empirical investigations of actual patterns emerging in discourse are missing. Moreover, to my knowledge there is no research that focuses on the relationship between argumentative patterns and argumentative indicators, which I suggest being an important connection.

The present work lies at the intersection of these fields and their respective "mutual" gaps; I intend to fill this precise gap, by investigating evidentials in financial dialogues, focusing on their pragmatic and rhetorical functions in particular in displaying and negotiating the informative asymmetry between participants, and their role at micro- and

macro-argumentative levels as indicators of moves and micro-arguments, also investigating which argumentative patterns they instantiate.

More broadly, this work contributes to ongoing research at the intersection of argumentation studies and *argument mining*, as will be argued in Ch. 10. Argument mining, that is, "the automatic recognition of the structure of human reasoning in natural language discourse" (Gemechu et al., 2025a), represents one of the most challenging frontiers in contemporary computational linguistics (Gemechu et al., 2025b). This research adds on an existing line of research (Musi, 2015; Musi and Rocci, 2016) that underlines how evidentials and epistentials can serve as useful resources for argument mining, insofar they work as argumentative indicators. I argue that evidentials not only signal argumentative moves, but that also realize specific micro-arguments and as such can be used to identify argumentative strategies employed by the speakers.

1.2.1. (Evidential) argumentative patterns as a notion connecting the three fields

The notion of *argumentative patterns* provides a conceptual bridge linking speakers' argumentative strategies to the socio-interactional context in which they operate. As will be discussed in greater detail in Chapter 6 (§6.4), argumentative patterns are not merely recurring configurations that share dialectical features, such as specific types of argumentative structures or schemes. More importantly, they are defined in terms of their relevance to contextual features: the goals, constraints, and incentives shaping participants' actions in a particular interactional situation. In this sense, argumentative patterns are strategic constructs that respond to *exigences* (Bitzer, 1968; see §4.1.2) of the context, which is intended both as the broader socio-cultural field and as the specific communicative instance – whether a dialogue, discourse, or text. Argumentative patterns thus exhibit a dual character. On the one hand, they have a *dialectical* nature, reflected in the argumentative and inferential paths they instantiate. On the other hand, they have a *rhetorical* dimension, in that their occurrence (and in a way their very existence) is closely tied to the interactional and textual context.

Although these patterns can be described as abstract constructs with identifiable structural and functional components, they are always instantiated in concrete discursive forms. In other words, they are simultaneously abstract and textual: they can be generalized across contexts, yet they materialize in actual language use. This is especially

true for patterns that are characterised at the level of linguistic and textual elements, such as argumentative indicators or specific expressions. Evidential argumentative patterns – which in a way constitute the "culmination" of the present research – exemplify this interplay, linking the study of argumentative strategies in context with linguistic form and textual expression.

1.3. Research questions

Specifically, this dissertation addresses four research questions, with some sub-questions.

1. ***How are evidentials employed in earnings conference calls by managers and analysts?***
   - ***1.1. How are evidentials distributed across managers and analysts?***
   - ***1.2. Is there a correlation between the type of evidentials and the speaker's role?***
   - ***1.3. How does the use of evidentials relate to speakers' interactional goals and incentives?***

The first aspect, which will be addressed through the analysis in Chapter 7, focuses on the use of evidentials in earnings conference calls by both managers and analysts. This investigation unfolds in two complementary stages. The first stage involves a quantitative analysis designed to examine the distribution of evidentials across participants (Q1.1) and to explore potential correlations between evidential types and the speaker's role (Q1.2). This approach allows for a systematic mapping of how different evidential markers are deployed within the ECC context. The second stage consists of a qualitative analysis aimed at interpreting the functional significance of these evidentials. Specifically, it considers how the use of particular evidential forms reflects and supports the interactional goals and professional incentives of managers and analysts (Q1.3). By combining these quantitative and qualitative perspectives, this analysis seeks not only to document patterns of evidential use but also to provide insights into the strategic and communicative motivations underlying these patterns.

The second dimension concerns the argumentative functions of evidentials:

2. ***To what argumentative moves and argumentative patterns are evidentials related?***
3. ***How are the uses of evidentials, in relation to moves and patterns, connected to the features of the activity type of earnings calls?***

Following the investigation of the distribution and general functions of evidentials, the analysis shifts to their argumentative role within ECCs.

Drawing on the theoretical framework introduced in Chapters 2 and 3, evidentials are conceptualized as markers that can provide justifications for asserted propositions, functioning both at a *macro-level* as indicators of argumentative moves and at a *micro-level* as components of individual arguments. Building on prior research that has explored evidentials as markers of argumentation, this study differentiates itself in three key ways. First, it focuses specifically on ECCs, an institutional setting that has not yet been examined in this respect. Second, it integrates a qualitative analysis to discuss how the use of evidentials is linked to the communicative strategies and institutional positioning of managers and analysts. Third, it incorporates a micro-level perspective, examining not only whether evidentials occur in premises or conclusions but also their inherent argumentative function as *ancillary arguments* that support or reinforce claims. By combining these perspectives, the study aims to capture both the structural and functional significance of evidentials in professional discourse.

Chapter 8 develops this analysis through a combination of quantitative and qualitative approaches. The quantitative analysis examines the distribution of evidentials and evidentiality types across the set of identified argumentative moves, identifying significant correlations that suggest their role as argumentative indicators. This allows for the systematic mapping of evidential deployment in relation to the structure of argumentation and provides insights into their potential applicability for argument mining in institutional discourse. Complementing this, a more fine-grained qualitative analysis grounded in the Argumentum Model of Topics, discussed in Ch. 2, investigates how evidentials function as arguments in their own right, supporting the acceptability of propositions and facilitating inferential connections. By examining examples across different evidential types, both in premises and conclusions, the study explores how sources of knowledge and degrees of certainty interact with the justificatory force of each evidential.

Chapter 9 extends this investigation to the institutional and strategic context of ECCs, focusing on *evidential argumentative patterns* that emerge from intersections among evidentials, argumentative moves, and speaker roles. The quantitative analysis identifies recurring configurations by cross-referencing these three levels, thereby mapping how different evidential types are deployed in different argumentative moves by analysts and managers. This allows not only a comparison of general argumentative and inferential

work of evidentials, as discussed in Chapter 8, but also an assessment of the relevance of these patterns for the activity type and their strategic function for managers and analysts.

The qualitative analysis then zooms in on analysts' turns, with particular attention to hearsay evidentials employed to justify questions. By examining these patterns in detail, the study explores how analysts use evidentials strategically to construct justifications, manage interactional constraints, and achieve communicative goals, revealing the interplay between evidential form, argumentative function, and institutional positioning.

Taken together, the analyses of research questions 2 and 3 provide a comprehensive account of how evidentials operate both as indicators of argumentative structure and as resources for strategic argumentation within ECCs. By integrating macro-level mapping, micro-level functional analysis, and the specific focus on analysts' strategic use of evidentials, the study illuminates the dual structural and functional significance of evidentials in professional financial discourse.

Lastly, a more theoretical question is addressed:

4. How are activity type, argumentative indicators and argumentative patterns related?

This question invites a reflection on the interrelations among activity type, argumentative indicators, and argumentative patterns, positioning it at the core of the study's conceptual framework. It considers the role of argumentative indicators – such as evidentials – in the identification and definition of recurring argumentative patterns, and conversely, how the observation of such patterns can illuminate the characteristic features of a given activity type, in this case, ECCs. By examining these relationships, the study investigates whether and how the systematic use of specific indicators shapes recognizable patterns of argumentation, and to what extent these patterns, in turn, reflect the institutional constraints, communicative goals, and interactional dynamics that define the activity type.

Addressing this question entails both conceptual and methodological reflection. Conceptually, it contributes to our understanding of how argumentation is embedded within institutional and interactional contexts, highlighting the ways in which recurrent argumentative behaviours emerge from the affordances and constraints of the activity. Methodologically, it underscores the value of using indicators as analytic tools to detect patterns, and of examining patterns as a means of inferring properties of the activity type itself. In this way, the question bridges micro-level analyses of argumentation – such as the functions of individual evidentials – with macro-level insights into the structure and

dynamics of professional discourse, providing a framework for systematically connecting linguistic form, argumentative function, and institutional context.

1.4. My perspective

In human interaction and communication, language cannot be conceived as independent from intention; specifically, in argumentative contexts, linguistic choices are shaped by the speaker's will to argue. Argumentation consists in adducing reasons in support of a statement or a standpoint. More profoundly, it may be understood as an "invitation to inference" (Pinto, 2001; Rocci, 2006) where the arguer proposes their reasoning process to the interlocutor, showing the path from shared premises to the conclusion, and requesting the interlocutor to accept that conclusion.

The present work is an argumentative inquiry of evidentials in the financial genre of ECCs. As will be discussed in Ch. 2, argumentation is not intended here (merely) as a text type or as a textual dimension that we can analyse by applying concepts and methods inherited from argumentation theory, and studying the argumentative function of evidentials does not only amounts to discussing their occurrence in moves or the type of arguments they instantiate. In the next paragraphs, I clarify the perspective adopted in this work, detailing what does it mean – and imply – assuming an argumentative-linguistic approach.

1.4.1. Through the lens of argumentation

To adopt an argumentative perspective on discourse means to analyse a text reconstructing the reasoning and reasons underlying a speaker's words, considering argumentative any text that is essentially motivated by an *argumentative intention* (see Ch. 2, §2.1.2 for a discussion of this concept). As will be discussed later on (Ch. 2, §2.1.2, see also Ch. 4, §4.4.2.2), interactions vary in their degree of *argumentativity*: some are clearly and explicitly argumentative, many are at least potentially so, others display only peripheral argumentative relevance, while some do not offer meaningful analytical insights when approached from an argumentative perspective. Within this framework, even discursive forms that do not conventionally appear argumentative can be interpreted as implicitly oriented toward an argumentative goal. By *argumentative goal*, I do not mean necessarily persuading or justifying a specific claim to an interlocutor. More broadly, to argue is to *deploy reason in dialogue in order to approach the truth concerning an open issue*, addressing an exigence that is relevant for the arguer.

An argumentative perspective on discourse thus entails attending to the "hidden reasoning" underlying speakers' words, and, correspondingly, to the "hidden argumentative structure": the issue at stake, the standpoint advanced, and the supporting arguments. In this sense, it involves analysing a text or conversational exchange as if it were systematically organized around argumentative moves. A key implication of this approach is that linguistic choices and textual strategies are interpreted in relation to their argumentative function. More precisely, speakers' linguistic choices are understood as contributions to their argumentative goal, revealing which premises they make explicit or evoke, which discursive relationships they establish, and, more broadly, which inferential pathways they signal or construct. As was suggested above, and as will be further developed in Ch. 2 (§2.1.1), argumentation – as it is intended in this work, following an Aristotelian tradition – is grounded in an optimistic belief that human beings are naturally inclined toward the truth. At its core, this perspective reflects a profound trust in human rationality and judgment. It is precisely for this reason that, unlike impression management, for instance, persuasion is approached here as a potentially constructive practice.

As anticipated in §1.1, this work adopts as its analytical method the Pragma-Dialectical model as reinterpreted by the Lugano school of argumentation. Developed by Eddo Rigotti in collaboration with other researchers, most notably Sara Greco and Andrea Rocci, the Lugano model revises the pragma-dialectical framework and integrates it with the Argumentum Model of Topics (see §2.4.3). This "Luganese Semantic-Pragmatic Approach" (van Eemeren et al., 2014) combines a number of concepts derived from Pragma-Dialectics with the Argumentum Model of Topics and is characterized by an in-depth focus on linguistic semantics and phenomena at the semantics-pragmatics interface.

As a final remark, it is important to clarify what it means to analyse evidentials from an argumentative perspective. In this work, I focus on observing how corporate managers and financial analysts operate within ECCs to realize their argumentative goals. Evidentials, as linguistic resources for signalling the source of knowledge, constitute particularly powerful tools in argumentation, as they enable speakers to justify claims, indicate inferential pathways, invoke or qualify authorities, and perform related rhetorical functions. Accordingly, my primary aim is to elucidate how evidentials are actually deployed to this end, and how they are strategically employed in the construction of arguments. This task clearly goes beyond merely recording the occurrence of evidentials

in argumentative moves – although such documentation remains a relevant and revealing aspect of the inquiry – and requires, more fundamentally, an understanding of the intrinsic argumentative value of evidentials.

1.4.2. Why studying argumentation in context is doing argumentation theory

Studying argumentation in context is not merely an application of theory to empirical material – it is, in a fundamental sense, a mode of producing argumentation theory itself.

This claim rests on a prior recognition: argumentation, as a human communicative practice, is irreducibly context dependent. It arises, as Pragma-Dialectical theory holds, as a response to a difference of opinion emerging from a specific situation (van Eemeren, 2018). As will be discussed more in detail in Ch. 2, reasonableness is "the effort to take into account all factors that are relevant for the concerned issue" (Rigotti and Greco Morasso, 2009:24) and these "factors" include "the context of the decision, and its implications" (Greco, 2009:158). Therefore, reasonableness is itself context dependent and, thus, an argumentative move is thus reasonable if, in its attempt at resolving the difference of opinion, it is adequate to the specific interactional context. This means that the reasonableness of a move can only be assessed in light of the contextual feature and dynamics – including the goals of the participants, the rules governing the interaction, the values and interests of the field, and the broader human and social sphere in which the discourse takes place and which it, in turn, shapes.

For this reason, to detach an argumentative discourse from its context is not to simplify it analytically; it is to alter or annul its meaning altogether. It follows, then, that argumentation theory without argumentation practice is, in an important sense, incomplete: a discipline whose object is a thoroughly contextual human activity cannot confine itself to abstract model-building without engaging with argumentation as it actually unfolds in real discourse. Van Eemeren (2018:5) has observed that "in order to pursue their interest in improving the quality of argumentative discourse where this is called for, scholars of argumentation have to combine an empirical orientation towards how argumentative discourse is actually conducted with a critical orientation towards how it should be conducted". While this remains true, I suggest that it is also true the opposite consideration: not only must normative frameworks be accompanied by empirical sensitivity, but empirical inquiry itself is a condition of possibility for adequate theory-

building. Engaging with actual argumentative texts and discourses does not merely test pre-established conceptual frameworks against data; it provokes reflection, generates distinctions, clarifies concepts, and reveals how abstract principles operate – and sometimes fail to operate – under the pressure of real communicative complexity. The analysis of argumentation in context is therefore not a downstream application of theory but an upstream contribution to it: it refines existing notions, exposes their limits, and opens pathways toward new explanatory and normative insight. In this sense, empirical research on argumentation functions as a genuine form of argumentation theory – one that bridges practice and theory and demonstrates that the study of how people actually argue is simultaneously an engagement with the normative and explanatory ambitions of the discipline as a whole.

Fundamentally, for argumentation in context to allow such contribution it need not to be merely *empirical* research on argumentation, but to be really an investigation of argumentative forms and strategies that takes into consideration the context; even more, the context is the fundamental backdrop against which such strategies are investigated, understood, evaluated.

This contextual embeddedness extends, moreover, to the very linguistic surface of argumentative discourse. Argumentative indicators for instance – the lexical and syntactic markers through which speakers signal relations – are not context-neutral devices whose meaning can be read off independently of the situation in which they occur. Their identification, interpretation, and argumentative weight are all conditioned by the specific interactional context: the same linguistic form may function differently across different discourse genres, institutional settings, or communicative purposes, and its argumentative significance can only be reliably determined against the background of the context in which it appears. The study of argumentative indicators thus furnishes a particularly compelling illustration of why the linguistic and the argumentative dimensions of discourse cannot be separated from their contextual anchorage – and why the analysis of real, situated texts is not a methodological luxury but a theoretical necessity.

The present work assumes this perspective in full. It sets out as an investigation of the linguistic devices through which argumentation is conducted in a specific, institutionally defined context – and it does so on the understanding that context is not background noise to be bracketed before analysis begins, but is, on the contrary, the very medium in which argumentative and linguistic meaning is constituted. Accordingly, the characteristics of

financial communication and of the genre of ECCs, discussed in detail in Chapter 4, are not merely contextual scenery against which the phenomena under analysis happen to unfold: they are an essential backbone of the analysis itself. It is precisely this contextual framework that renders intelligible the linguistic strategies employed by speakers, that determines the argumentative function of specific choices, and that ultimately accounts for the values and interpretive force of evidential expressions in this discourse. To understand what evidentials do in earnings conference calls – why a particular marker is deployed, what argumentative work it performs, what it signals to the audience – one must understand the communicative situation in which it occurs: its goals, its stakes, its conventions, and its constraints.

1.4.3. A linguistic approach to argumentation analysis

The linguistic perspective adopted in the present work can be situated within a broader framework that has recently been systematized in the volume *The Language of Argumentation* (Boogaart et al., 2021). Drawing on a distinction proposed by Jeanne Fahnestock (2021), one may differentiate between two fundamental orientations in the study of the relationship between language and argumentation: an *argumentation-to-language* approach, which takes a specific argumentative move as its point of departure and examines the various ways in which it is linguistically realized in discourse; and a *language-to-argumentation* approach, which proceeds in the opposite direction, taking a specific linguistic construction, rhetorical figure, or discursive expression as its starting point and investigating its argumentative function and strategic potential. The present study adopts the second orientation: it departs from evidential expressions as linguistic phenomena and proceeds to reconstruct the argumentative functions they perform and the strategies they realize in the discourse under analysis.

It is important to observe, however, that this language-to-argumentation perspective need not be confined – as it sometimes is – to expressions or constructions that have already been identified or canonically classified as inherently argumentative. On the contrary, the approach can be understood in a more holistic sense: rather than projecting a pre-established argumentative strategy onto the discourse and then searching for its linguistic correlates, it is possible to reconstruct the argumentation proposed by a speaker by departing from the textual and discursive surface itself – from the actual words, markers, and constructions that constitute the discourse as it unfolds. This procedure

entails a fundamental methodological commitment to fidelity to the speaker's discourse. By grounding the reconstruction of argumentative reasoning in the linguistic material as it is actually produced, rather than in an idealized or externally imposed logical structure, this approach preserves the integrity of what the speaker proposes – including, crucially, cases where the reasoning advanced is fallacious or otherwise defective. In such cases, the argumentative structure is reconstructed as it is put forward by the speaker, and evaluative judgment is reserved for a subsequent, analytically distinct moment. This sequencing – first reconstruction, then evaluation – is not merely a procedural choice but reflects a deeper epistemological commitment: that the critical assessment of argumentation must be grounded in an accurate and faithful understanding of what is actually being argued, and that such understanding can only be achieved by taking the linguistic dimension of argumentative discourse seriously as both its medium and its evidence.

1.5. Relevance of this study

As discussed in §1.2, the present work aims to address the research gap at the intersection of evidentiality, argumentation, and financial communication. In the following paragraphs, I will elaborate on the relevance of studying argumentation in financial communication (§1.5.1), clarifying why argumentation constitutes a central aspect of communication in finance (a topic that will be explored further in Ch. 4). I will also discuss the importance of examining evidentials in financial communication, and specifically in ECCs (§1.5.2), arguing that investigating epistemicity in financial dialogues is crucial for understanding the strategic use of language in these contexts.

1.5.1. Why argumentation in financial communication

As will be discussed in detail in Ch. 4 (§4.1.2 and §4.3), financial communication is essentially argumentative as it is never limited to the neutral transmission of facts but is intrinsically oriented toward the justification of standpoints and the persuasion of market participants. Financial communication serves, in fact, beside an *informational objective* (§4.1.2) an equally relevant *rhetorical objective* (§4.1.2), due to the pivotal problem around which finance itself revolves: the *investment decision problem*. Entrepreneurs and corporate firms have to persuade investors to invest in their company, arguing that their business is safe and sound and will allow them to generate value. Along the same line, Palmieri (2018:46) underlines that while disclosure regulation is grounded in the idea that investors use information as premises for rational decisions, firms are "not merely neutral

information providers"; rather, they have "a compelling interest in persuading investors to positively assess their behaviour and, ultimately, to invest in their business projects". Investment choices are rarely derived from facts alone; rather, they depend on how available information is interpreted, connected to broader assumptions, and transformed into evaluative or predictive judgments. In this sense, financial communication is intrinsically argumentative, as it continuously links premises to conclusions about value, risk, credibility, and future performance. As Palmieri et al. (2015:123) observe, "argumentation is […] crucial for financial communication, whose fundamental dynamic of connecting information to investment decisions ultimately rests on a reasoning process".

An argumentative perspective is thus particularly relevant in finance as it provides the crucial link between information and decision-making under uncertainty. As Palmieri (2018:49) explicitly notes, "in the world of investments, uncertainty, risk, and divergence of beliefs are the rule rather than the exception" which makes argumentation especially salient whenever competing interpretations of value, risk, or future performance emerge: whenever market participants face issues that are not self-evident and therefore require justification, negotiation, or critical assessment.

Earnings conference calls are especially relevant from this perspective because in this context evaluations, strategic decisions, and forward-looking claims are continuously exposed to scrutiny. Here, management's standpoints are not simply presented but must be defended through reasons, while analysts actively test those arguments by requesting explanations and challenging assumptions. Also, managers' trustworthiness and credibility are under constant scrutiny. Studying argumentation in this context therefore makes it possible to reconstruct the inferential processes through which financial actors seek to render judgments persuasive.

1.5.2. Why evidentiality in financial communication

In finance, knowledge and information constitute a fundamental asset, shaping market expectations, investment behaviour, and strategic decision-making. Financial communication is deeply embedded in a process that moves from information to prediction, evaluation, and ultimately decision, making the quality and framing of information especially consequential. Because finance is inherently future-oriented, it is also structurally characterized by uncertainty: market participants constantly operate on

incomplete knowledge about future performance, risks, and opportunities. In this context, "information" cannot be reduced to material or quantitative data alone. Rather, financial actors also rely on opinions, expectations, intuitions, and qualitative insights – the *"colour"* of finance – which contribute to the interpretive dimension of market assessment. Accordingly, the relevance lies not only in the informational content itself, but also in how knowledge is presented, framed, and made credible in discourse. As Oberlechner and Hocking (2004:422) observe, "financial markets may be less about the actuality of economic facts than about how information is perceived and interpreted by market participants". More broadly, finance is fundamentally structured by a persistent *informational asymmetry* between insiders and outsiders (see Ch. 4, §4.1.1): managers and entrepreneurs possess privileged access to firm-specific knowledge and can strategically determine what information to disclose, what to withhold, and how to present it, whereas investors and analysts, as outsiders, depend on such disclosures to evaluate corporate value and future prospects. Earnings conference calls are particularly relevant in this respect because they make this asymmetry interactionally evident (see Ch. 4, §4.4.4): they provide an institutionalized dialogic setting in which unequal access to knowledge becomes observable in real time through questions, answers, and the language employed by the participants. ECCs therefore constitute a privileged site in which managers and analysts not only exchange information, but also strategically negotiate knowledge itself. Participants continuously position themselves as knowing – or not knowing – particular facts, assessments, or projections, while simultaneously indicating the grounds on which such knowledge rests. For this reason, the study of discursive knowledge management is central to understanding strategic communication in ECCs. In this perspective, evidentials – and other epistemic markers such as epistemic modals – offer a particularly productive analytical lens. These expressions make visible the underlying asymmetry between insiders and outsiders and help map the epistemic distribution of the dialogue: who knows what, how this knowledge is sourced, and how it is strategically mobilized in interaction (Rocci, Raimondo and Puccinelli, 2020). Studying epistemicity and evidentiality in dialogue thus provides crucial insight into how financial actors construct authority, manage uncertainty, and strategically communicate knowledge in earnings conference calls.

1.6. Organization of the work

The present work is organized in nine chapters, which can be broadly grouped into three parts: a theoretical foundation, an empirical and methodological framework, and the analytical core of the study.

The first part comprises three theoretical chapters. Chapter 2 lays the argumentative-theoretical groundwork. It opens by clarifying the notion of argumentation as a practice (§2.1.1) and characterizing the nature of argumentative texts (§2.1.2), before situating the study within the broader intellectual landscape defined by the tension between rhetoric and dialectic (§2.2). After surveying the development of modern argumentation theory (§2.3), the chapter introduces the theoretical and analytical framework adopted in this study, which combines the key notions of the Pragma-Dialectical approach – as revised by the Lugano school of argumentation – with the *Argumentum Model of Topics* in an integrated framework that makes it possible to analyse argumentative discourse at both the macro- and micro-levels. Section §2.4 introduces and discuss the key Pragma-Dialectical concepts: the *model of critical discussion* and the *analytical overview*, the notion of *strategic manoeuvring*, *argumentative indicators*, and *argumentative patterns*. The last two concepts are treated in particular detail, given their centrality to the present work. *Argumentative indicators* (§2.4.1.4) are examined as the primary textual means through which argumentative moves are identified and reconstructed in discourse. The notion of *argumentative patterns* is discussed extensively in §2.4.1.5 – both as it has been developed within Pragma-Dialectical research and as it is reconceptualized and extended in the present study – with the understanding that a more precise and fully elaborated account of the reconceptualization proposed here is reserved for Chapter 6, where it is operationalized methodologically. §2.5 is dedicated to the presentation of the *Argumentum Model of Topics*, which completes the chapter's theoretical apparatus, providing the conceptual foundation for the reconstruction of inferential configurations that is central to the analytical procedure adopted in the empirical chapters. The chapter closes with a set of theoretical and methodological reflections on the analysis of argumentative texts, with the aim of clarifying how argumentative analysis – approached from a linguistic perspective – is theorized within the present work (§2.5). This closing discussion serves as the theoretical backbone for the methodology developed and operationalized in Chapter 6, anchoring the analytical choices made there in a principled account of what it means to analyse argumentation in discourse.

Chapter 3 is devoted to evidentiality. It begins by addressing the definitional and taxonomic debates surrounding this category (§3.1) – including its relation to epistemic modality, and the competing *narrow* and *broad* conceptions of evidentiality in the literature – before arriving at a working definition suited to the study of evidentials in financial dialogue (§3.2). The chapter then presents the main evidential taxonomies and their governing notions (§3.3), with particular attention to reported and inferential evidentials, before turning to the interactional dimension of evidentiality (§3.4): the management of knowledge in dialogue, the notions of epistemic status, stance, access, authority, and responsibility, and the pragmatic effects of evidential expressions in discourse. The chapter concludes by examining the relationship between evidentiality and argumentation (§3.5), establishing evidentials both as arguments in their own right - specifically, as *arguments from reliable procedures of knowledge acquisition* – and as indicators of argumentative moves.

Chapter 4 turns to the context to which this study is applied. It characterizes the nature and dynamics of financial communication (§4.1), its informational and rhetorical objectives, and in § 4.2 I detail the communicative context of finance based on the *model of communication context* developed by Rigotti and Rocci (2006)[3] and its organization as a macro discourse system and a polylogue. §4.3 focuses on the role of argumentation in financial communication from different aspects. The last part of the chapter (§4.4) then offers a detailed characterization of earnings conference calls as a discourse genre (§4.4.1) and as an argumentative activity type (§4.4.2), attending to the goals of managers and analysts as participants, their respective argumentative roles (§4.4.3), and the specific dynamics of knowledge management that this genre instantiates (§4.4.4).

The second part consists of a methodological interlude and a methods chapter. Chapter 5 functions as a bridge between the theoretical and analytical parts of the study: it summarizes the theoretical framework developed in the preceding chapters and recalls the research questions that orient the empirical investigation.

Chapter 6 presents the data and methodology. It describes the corpus (§6.1) and introduces the two main analytical instruments deployed in the study: an annotation

[3] Although Pragma-Dialectics offers its own model for the analysis of *communicative activity types*, this study adopts the framework proposed by Rigotti and Rocci (2006), as it is considered to provide a more comprehensive and fine-grained account of the relevant characteristics of an interaction and its context.

scheme for evidential expressions, organized around the notion of epistential frames and a taxonomy of evidentiality types developed specifically for the ECC context (§6.2); and a combined, multi-step approach to argumentative analysis (§6.3), moving from macro-structural annotation of argumentative moves to the reconstruction of argumentative structures and the micro-reconstruction of inferential configurations. The chapter closes with a reconceptualization of the notion of argumentative patterns (§6.4), addressing both its definitional and methodological problems, proposing a revised definition and an alternative methodology, and introducing the specific notion of evidential argumentative patterns that is investigated in Chapter 9.

The third part comprises three analytical chapters. Chapter 7 presents a comprehensive empirical overview of evidential expressions in the corpus, examining the distribution of evidentiality types, epistemic modality types, cognizer types, and source types (§7.1). Section §7.2 turns to the specific linguistic realizations and expressions of evidentiality in ECCs, compiling a dictionary and analysing how the various functions of the different expressions to provide a clear understanding of the "evidential vocabulary" employed in ECCs. A particular focus is placed on the differential distribution of evidentials across participant roles, managers and analysts, which is shown to reflect and enact a systematic epistemic asymmetry between the two parties (§7.3).

Chapter 8 investigates the argumentative functions of evidentials, examining how different evidentiality types – direct, hearsay, inferential, common knowledge, and subjective – operate at a macro-level as argumentative indicators of specific argumentative moves and at a more micro-level as arguments in their own rights. The chapter offers a quantitative observation of the distribution of evidentials in moves, as well as a more qualitative in-depth analysis of examples meant to show the argumentative working of evidential strategies.

Chapter 9, after clarifying the notion of *evidential argumentative patterns* (§9.1) zooms in on a specific and recurrent phenomenon identified in the corpus: *hearsay-prefaced questions as evidential argumentative patterns* (§9.2). It classifies and analyses the different subtypes of hearsay prefaces employed by analysts in their questioning strategies, illustrating how a specific evidential type systematically combines with a specific argumentative configuration to serve recognizable rhetorical and dialectical functions in this genre.

The study closes with Chapter 10, which draws together the findings of the three analytical chapters to answer the research questions and outlines directions for future research.

2. Argumentation

This chapter introduces and discusses the central notion of *argumentation*, which constitutes the conceptual backbone of the present dissertation, clarifying the key concepts and theoretical notions that inform the analysis developed throughout the thesis.

Section §2.1 is devoted to clarifying what argumentation is – and how is intended in this work. Section §2.1.1 attempts to provide a definition of *argumentation* both as a discipline and as a communicative practice, presenting my understanding of its scope and significance as the basis for the present study. Section §2.1.2 examines the *Congruity Theory* framework, developed by Rigotti and Rocci, which provides a conceptual lens for identifying and characterizing argumentative texts.

Sections §2.2 and §2.3 offer, respectively, a concise overview of Aristotle's conception of rhetoric and dialectic – as a means of clarifying the theoretical perspective adopted in the thesis – and a brief historical account of the development of argumentation theory in modern and contemporary period. This contextual background allows for a clearer positioning of the models and approaches employed in the dissertation.

§2.4 is dedicated to the analytical framework adopted in this work, namely the Pragma-Dialectical approach in the reinterpretation proposed by the Lugano school of argumentation and the integration with the Argumentum Model of Topics. This section begins with a general introduction to the Pragma-Dialectical theory and its core concepts, followed by a discussion of its key analytical categories and tools: the *model of critical discussion* (§2.4.1.1) and the *analytical overview* (§2.4.1.2), the notion of *strategic manoeuvring* (§2.4.1.3) *argumentative indicators* (§2.4.1.4), and *argumentative patterns* (§2.4.1.5). The latter two concepts, in particular, will play a central role in the analysis developed in Chapters 8 and 9. In Chapter 6, they will also be further examined and partially redefined in order to better align with the specific objectives of the present study. In §2.4.2 I present the Argumentum Model of Topics, which serves as theoretical and methodological tool to analyse the inferential configuration of arguments inspired to the Aristotelian and classical models of *topoi*.

The last section focuses instead on the analysis of argumentative texts. Starting from the Pragma-Dialectical approach and methodology, §2.5.1 addresses the issue of representing argumentative structures, while §2.5.2 discusses problems and solutions in the reconstruction of arguments. The notions and methods discussed in these sections are

particularly relevant to situate and explain the specific methodology adopted in this dissertation to annotate, reconstruct and analyse arguments.

The chapter is thus structured to move from a general overview of the field and its foundational notions to a more detailed discussion of specific analytical tools, gradually narrowing its focus to the theoretical concepts – mainly from Pragma-Dialectics – and methodological considerations that provide the basis for the analyses in the following chapters.

2.1. Clarifying the term *argumentation*

Providing a comprehensive and exhaustive definition of argumentation is a challenging endeavour. Argumentation encompasses a field of knowledge, a scholarly discipline, and a ubiquitous human practice, all marked by significant complexity. Numerous definitions have been proposed over time, reflecting different theoretical and analytical perspectives. In this work, I do not aim to present a comprehensive or definitive definition of argumentation – a task that is perhaps impossible. Instead, this paragraph seeks to delineate the core characteristics of argumentation that are central to understanding it as conceived in the context of this study. In essence, this section offers a functional definition, designed to establish the foundational framework within which this research is situated. By focusing on these key attributes, the intention is to provide a practical lens for examining argumentation, aligned with the specific objectives and theoretical orientation of this work.

The term *argumentation* serves a dual purpose, referring both to a human *practice* and to a scholarly *discipline* that examines such practice. Argumentation as a practice refers to the activity of constructing, presenting, and evaluating arguments in various communicative contexts, and it is both intrinsic and distinctive to human beings[4]. As a discipline, argumentation traces its origins to classical antiquity, with Aristotle often regarded as its first scholar. Today, it can be defined as "a rich, interdisciplinary area of research straddling philosophy, communication studies, linguistics, psychology, and artificial intelligence that has developed context-sensitive practical methods to help a user identify, analyse and evaluate arguments" (Walton, 2013:1). This characterization reflects the field's evolution into a multifaceted and applied area of inquiry.

[4] This idea is discussed more in detail in §2.1.2.

The next section (§2.1.1) focuses on the notion of argumentation as a practice, starting from the definitions provided within Pragma-Dialectical theory and integrating insights from classical authors as well as from the Lugano School of argumentation. Section §2.1.2 then discusses argumentation as a *discursive* practice and, drawing on Congruity Theory, examines what characterizes a discourse as argumentative.

2.1.1. Defining argumentation as a practice

To define the essence of this process, we can turn to two complementary definitions offered by Frans van Eemeren and Rob Grootendorst, pivotal figures in modern argumentation theory and co-founders of the Pragma-Dialectical approach.

> Argumentation is a *verbal*, *social* and *rational* activity aimed at convincing a *reasonable critic* of the acceptability of a *standpoint* by putting forward a *constellation of propositions justifying or refuting* the proposition expressed in the standpoint. (van Eemeren and Grootendorst, 2004:1, emphasis added)

> Argumentation is a *communicative* and *interactional* act complex aimed at *resolving a difference of opinion* with the addressee by putting forward a constellation of propositions for which the arguer *can be held accountable* in order to make the standpoint at issue acceptable to a *rational judge* who judges *reasonably*. (van Eeemeren, 2018:3, emphasis added)

Argumentation is primarily defined as a *verbal* activity since, as the authors note, it is expressed through language. However, in practice, argumentation can also rely heavily – or even entirely – on non-verbal elements. Over the past decades, the field of *multimodal argumentation* has expanded significantly, emphasizing the importance and impact of non-verbal argumentation[5]. It has been highlighted how images, sounds, and other non-linguistic means can play an argumentative role. However, the notion of verbality in argumentation, as expressed in the initial definition, does not conflict with this broader understanding. From the Pragma-Dialectical perspective, argumentation is considered verbal because it requires an externalization of propositions, even if this externalization is imprecise or partial. For instance, the content conveyed by non-verbal elements, such as images, can be verbalized and reconstructed into arguments. To account for both verbal and non-verbal elements, argumentation is better characterized as *communicative*.

[5] See Stöckl and Tseronis (2024) for a recent overview of the development in this research area.

This communicative nature ties into another key characteristic of argumentation: its *social* and *interactional* essence. Argumentation is inherently dialogical and occurs in interaction with others. As Greco (2009; 2017) points out, dialogue is the "proper venue" for argumentation because it intrinsically involves the scrutiny of an interlocutor – a *reasonable critic*. This dialogical nature applies even in cases of monological discourse or inner dialogue (van Eemeren and Grootendorst, 2004; Greco, 2013; 2015; 2017), where the subject evaluates alternatives, effectively simulating a *polyphonic* exchange. Furthermore, argumentation can be defined as *social* as it engages with *social reality*. It addresses *differences of opinion* that exist in the real world, among actual people. Roles commonly distinguished in dialectics such as *protagonist, antagonist*, and *audience*, are not abstract constructs but are embodied by real individuals engaged in the practice of argumentation.

Thirdly, argumentation is defined as inherently *rational*, as argumentative processes follow (logical) reasonings and require a rational judge. However, it is clear that argumentation extends beyond mere logical rationality, as it must account for the complexities and nuances of human reality. As Greco argues: "within the complexity of human life, logic is necessary but not sufficient; the reasoning at work in argumentative discourse inevitably goes beyond mere calculation" (Greco, 2017:27, my translation). In this sense, while argumentation is necessarily rational, it is more properly characterizable as *reasonable*. Reasonableness encompasses rationality but exceeds and transcends it. Since argumentation is aimed at convincing a reasonable critic or judge, the strategies and moves employed by the arguer must be not only logically consistent but also reasonable. Defining reasonableness, however, is a challenging task. As Rigotti and Greco Morasso (2009a:24) suggest, "the most typical and comprehensive sign of reasonableness is the effort to *take into account all factors that are relevant for the concerned issue*", these "factors" including "the context of the decision, and its implications" (Greco, 2009:158). In this way, a *reasonable attitude* requires a commitment to resolving differences of opinion in a manner that reflects the human dignity of the participants. As Greco (2009:159) further states, the resolution of disagreements should be "worthy of the human quality of the interlocutors". This implies that the arguer's primary aim should not be to win at any cost, and consequently, reasonable argumentation excludes any form of violence – whether physical or verbal – as well as manipulation – which is, in a sense, a form of violence. Greco (2009) commenting Karl Popper's aphorism "*Man hat nur die*

Wahl zwischen Vernunft und Gewalt" ("we can only choose between reason and violence") writes that "as Popper suggests, there is a less brutal alternative to tackle problems, face disagreement, and solve conflicts: the use of human reason in dialogue, namely, the adoption of an *argumentative* attitude" (Greco, 2009:9). Indeed, argumentation offers an alternative to violence proposing to solve the differences of opinion through language and reason. The possibility and the ability to argue sets humans apart from animals, as Cicero noticed already:

> Eius (humanae societatis) autem vinculum est ratio et oratio, quae docendo, discendo, communicando, disceptando, iudicando conciliat inter se homines coniungitque naturali quadam societate, neque ulla re longius absumus a natura ferarum, in quibus inesse fortitudinem saepe dicimus, ut in equis, in leonibus, iustitiam, aequitatem, bonitatem non dicimus; sunt enim rationis et orationis expertes. (Cicero, *de Officiis* I, 50)[6]

Argumentation, as a reasonable activity, respects, and even favours, the interlocutors, and their freedom. Rocci (2017) underscores that reasonableness involves "looking after the other's reason". In his view, reasonableness requires not only logical consistency and relevance, but also "dialectic correctness" (thus is not opposed to rationality but it is rather an expansion of it). The concept of *dialectic correctness* refers to the commitment to shared premises and mutual respect for the interlocutor's reasoning and the context of the debate. It highlights the need for arguers to engage with each other in good faith, acknowledging the circumstances that shape the discourse, which is encapsulated in the concept of *καιρός* (*kairós*) in Greek tradition. In this context, a reasonable move is one that is adequate to the entire context of the interaction and aligns with the shared goal of resolving the difference of opinion based on its merits, rather than resorting to tactics that undermine the integrity of the participants.

While argumentation evidently entails a persuasive objective – aiming to convince the critic – this could, at first glance, appear to be in contrast with the notion of reasonableness. However, as Rocci (2017) contends, persuasion itself is not only compatible with

[6] A note on the expression of *ratio et oratio*. This expression literally means *reason and discourse*, but it creates a hendiadys – a dyadic expression, a couple of two terms that expresses one single concept – that connects the two elements which have to be understood as intertwined. The intrinsic connection between reason and discourse, or reason and language, was already in Aristotle: the term *λὸγος* – which is used to indicate argumentation as a process – incorporates the meanings of discourse and reason.

reasonableness but is, in fact, a crucial component of it. Aristotle, in his *Rhetoric*, makes this point clear, asserting that a persuasive commitment is not morally wrong but rather a duty when it serves to uphold truth and justice.

> Rhetoric is useful because things that are true and things that are just have a natural tendency to prevail over their opposites so that if the decisions of judges are not what they ought to be, the defeat must be due to the speakers themselves, and they must be blamed accordingly. (Aristotle, *Rhetoric*, I)

From this perspective, persuasion becomes a contribution to reasonableness. In order for truth and justice to prevail, they require the support of rational and reasonable argumentation. Therefore, promoting truth and justice through rhetoric – defined as the ability to identify the appropriate persuasion means and techniques – is morally justified when it is informed by dialectic, which is the process of reasoning correctly in dialogue.

This Aristotelian view rests on an *optimistic belief* that human beings tend, by nature, toward the truth, and ultimately reveals a deep trust in the humankind (cf. Rigotti and Greco, 2019). The interactional principle of argumentation, in which one submits one's reasoning to the scrutiny of a reasonable critic, mirrors this trust in the human capacity for reason. In this context, disagreement and persuasion are not inherently negative. Instead, they represent a constructive process of heuristic exploration, where the goal is not to "win" the argument at any cost, but rather to collaboratively seek the truth – or, at least, find a mutually acceptable resolution to the issue at hand. Pragma-Dialectics echoes this optimistic view:

> Argumentation is not aimed at making the addressee accept a standpoint automatically, as may happen in persuasion based on sentiments or prejudice. Instead, it is aimed at convincing the addressee of the acceptability of the standpoint by making them see that mutually shared critical standards of reasonableness have been met. Trying to convince the addressee by means of argumentation relies on the idea that the other party will approach the argumentation constructively, judging its soundness reasonably. (van Eemeren, et al., 2014:6)

Argumentation, thus, fundamentally arises to solve a *difference of opinion*, which constitutes an essential element:

> Argumentation comes into being in response to, or in anticipation of, a difference of opinion, whether this difference of opinion is real or merely imagined by the arguer. Argumentation is advanced when people assume a standpoint not to be shared by others so that there is a difference of opinion. (van Eemeren, 2018:1)

Argumentative discourse, therefore, emerges as a response to a *problem*. Modern argumentation theories, including Pragma-Dialectics, use the term *issue* to refer to the question an argumentation revolves around, derived from the Latin *quaestio*.[7] Aristotle used the term *πρόβλημα* (*próblema*), which also means *question*, and refers to matters for which the answer is not obvious – otherwise, there *would be no need* to argue (Aristotle, *Topici*, I, 104a) – but, at the same time, a question to which it is possible to answer through a reasoning – otherwise *it would not make sense* to argue. In this sense, a *πρόβλημα* is a real problem[8] that is relevant to the arguers and is shrouded in doubt. The dimension of doubt is central in argumentation exactly because it concerns issues that are not self-evident: there is no need to argue about what is certain. In this sense, argumentation does not concern perceptive and moral evidence, which in Aristotle's view should not be considered dialectical problems and do not require discussion. In this context, doubt is an essential component for argumentation and has been recognized as such since antiquity. Cicero defined argumentation in these terms: "*argumentum est ratio rei dubiae faciens fidem*" (*Topica*, 2,7), which means that an argument is a reasoning that serves to establish credibility or belief in a matter that is uncertain or questionable. On a similar vein, Quintilian, Latin author and rhetor, defines an argument in the following way:

> Ergo cum sit argumentum ratio probationem praestans, qua colligitur aliud per aliud, et quae quod est dubium per id, quod dubium non est, confirmat, necesse est esse aliquid in causa, quod probationem non egeat. (*Institutio oratoria*, 5, 10-11)

[7] In Pragma-Dialectics, the notion of *standpoint* is considered more central than that of *issue*. However, in this study, we adopt the perspective that the primary element of argumentation is the *issue*, in line with other scholars who have supported this (Aristotelian) interpretation (Schär and Greco, 2016; Schär, 2017, 2018; Greco et al., 2017; Rigotti and Greco, 2019).

[8] This concept is similar to the idea introduced by Lloyd Bitzer of *rhetoric exigence*, which will be detailed in Chapter 4 (§4.1.2).

For Quintilian, an argument is a reasoning process that provides evidence (*probationem*) through which it is possible to conclude something from something else (*qua colligitur aliud per aliud*) and that confirms what is doubtful through what is not doubtful (*quod est dubium per id, quod dubium non est, confirmat*). His definition also underscores that, although the *issue* must be something doubtful, to argue and clarify that doubt, there must be something unquestionable: *necesse est esse aliquid in causa, quod probationem non egeat*. This highlights that to argue we need some certain, unassailable premises.[9] As Godden (2008:101) states:

> All reasoning, including the reasoning used in argument, has to start from somewhere. Although it may be possible, in principle, to offer support for every claim, in any particular case this strategy cannot be used without hopeless regress. Thus, not every claim used in reasoning can owe its acceptability to some set of reasons offered in its support. Instead, in the context of any given argument or piece of reasoning, some claims must be accepted – if only as starting places – on some other basis. These claims can be called the basic premises of an argument.

Rigotti (2009) observes that the very etymology of the term *argument* reflects this dynamic. The Latin word *argumentum* comes from the verb *arguo*, meaning *to show*, *to prove*, *make clear*; it shares roots with *argenteum* (meaning *silvery*) derived from the

[9] In the Aristotelian framework, also premises are *questions*, but of a different type. An issue is a *πρόβλημα*, whereas a premise is a *πρότασις*, which is a rhetorical question through which the arguer asks his interlocutor "to accept a proposition that is supposedly shared" (Greco and Rigotti, 2019:9). Premises-*πρότασεις* are introduced by the particle *ἆρα*, used when asking to confirm something that is presumably accepted by the answerer; they are rhetorical requests of confirmation, whose role is to verify that a proposition is accepted and can, therefore, be used as premise in a reasoning. Conversely, issues-*προβλήματα* are introduced by the particle *πότερον* (lat. *utrum*) meaning "which of the two(?)"; thus, they are polar ("yes-no") questions, establishing an alternative, and real questions about the truth-value of a possible state of affairs.

For Aristotle, issues-*προβλήματα* can be of two kinds: *epistemic* (knowledge-oriented) or *practical*. Interestingly, for the philosopher practical issues and practical argumentation are really *action-oriented* as they do not ask only to accept the conclusion, but also – when accepted – to act accordingly. The Latin tradition – in particular Cicero and Boethius – proposes a different distinction of issues, characterizing questions in terms of their specificity: they distinguish *definite* and *indefinite* questions (respectively *hypotheseis/causae* and *theseis/proposita*), where the former are concrete and context-specific issues, whereas the latter are abstract and more general ones. Also, while definite questions pertain to the domain of rhetoric (which is in fact context-based), indefinite questions are of interest to dialectics.

Greek word *argyros* which connotes *shining*. The suffix -*mentum* suggest a *means to* achieve something, as in *alimentum* (food) which is the *means to nourish* (*alo*). In this sense, an argument is a means to prove something:

> *Arguere* is to provoke that gleam which allows one to see and understand. It does not directly make the thing visible, in the sense of highlighting it in the visual field, placing it in the foreground or pointing to it (ostension), but it makes it visible indirectly, shedding light and clarity on what was previously unclear. (Rigotti, 2009:120-121; my translation).

Then, arguing is moving from certain premises to prove something uncertain, making it clear. This reasoning path through which something doubtful becomes accepted is known as *inference*. Argumentation consists of an "invitation to inference" (Pinto, 2001; Rocci, 2006) where the arguer proposes their reasoning process to the interlocutor, showing the path from shared premises to the conclusion, and requesting the interlocutor to accept that conclusion.

In several contemporary argumentation theories, as previously mentioned, the conclusion supported by argumentation is often referred to as a *standpoint*.[10] The term *standpoint* literally signifies "point of view", thus indexing the point or position from which the arguer "stands" in relation to the issue at hand. Rigotti describes a standpoint as "*l'atto assolutamente straordinario con cui l'essere umano prende posizione di fronte alla realtà e si impegna ad attestare questa sua posizione*" ("the absolutely extraordinary act with which the human being takes a stance in front of reality and commits to affirming this stance"; Rigotti, 2009:118).

[10] *Standpoint* is a notion introduced by Pragma-Dialectics; other terms are employed to indicate the same concept, such as *claim*, *conclusion*, *thesis*, and *debate proposition*. Aristotle referred to what we call standpoint by the terms *πρόβλημα* or *θέσις*, which were also used, as said above, to indicate the debated issues. In a way, for Aristotle there is not a distinction between the issue and the standpoint, which is a "discussable proposition", thus it is in itself the *res dubia*. The philosopher also adopted the expression *τὸ ἐν ἀρχῇ* - what is in the beginning; some explanations can be given of this expression, which remain however quite obscure. Specifically, this idea could refer either to the fact that in some context the standpoint is declared by the arguer at the beginning of a discourse or dialogue, or to signal that the standpoint constitutes the primary element of argumentation, inasmuch it represents the ultimate goal of the dialogue. The term *thesis*, which originated from θέσις, was used by some Latin authors to indicate either the issue or the standpoint; in particular, Cicero named *thesis* the type of *quaestiones* addressed by dialectics. The Latin author Boethius employed the terms *conclusio* or *enunciatio* (or *propositio*); an *enuciatio* (or *propositio*) in an utterance that could be either accepted (becoming a *conclusio*) or questioned (becoming a *quaestio*).

The standpoint is a pivotal element in argumentation, as it constitutes a core component of the argumentative dynamic. Furthermore, it unveils the essence of argumentation as a triadic relationship involving a subject, their reasoning, and reality. To assume a standpoint is to take a position on a problem in reality, engaging with it through reason and committing oneself to this position. This act is inherently rational and embodies a reasonable approach to interaction.

Consequently, argumentation not only revolves around but also manifests the interplay between language, reason, and reality. It reveals how individuals utilize reason to articulate their perspectives and engage in a dialogical process aimed at resolving issues grounded in reality. In this sense, argumentation is both a practical activity and a profound expression of the human capacity to reason and relate to the world through discourse.

2.1.2. The nature of argumentative texts

In §2.1, I stated that argumentation is a pervasive and fundamental aspect of human communication. This observation requires further elaboration.

In text linguistics, argumentation is often classified as a text type or discourse genre. While it is true that certain contexts, circumstances, or social activities (which we might term "activity types", a concept to be introduced in Chapter 4) inherently involve argumentation, it cannot be strictly defined as a text type. Argumentation is not confined to a specific discursive activity or a limited set of contexts; rather, it is a ubiquitous practice that underlies and informs virtually all human interactions. We engage in argumentation when selecting a restaurant for a dinner party, just as we do when choosing a candidate in a political election or when that candidate attempts to persuade others to vote for them. Argumentation is thus present across a broad range of text types and communicative and social events. Argumentative sequences frequently appear in texts and discourses that are not primarily argumentative, such as news articles or narrative texts that contain argumentative dialogues or passages. For instance, Aouladomar et al. (2006) examined the role of argumentation in procedural texts, demonstrating how micro-sequences of argumentation contribute to achieving a text's objectives. This reinforces the notion that argumentation is not limited to formalized settings or specific genres.[11]

[11] It is not, either, prerogative of adults. Research by Sara Greco and Anne-Nelly Perret-Clermont (cf. Greco et al., 2015; Greco et al., 2018) has shown that children argue spontaneously and consistently, underscoring that argumentation is not merely an acquired skill, like mathematics, but an intrinsic activity of human beings.

A similar perspective is offered by the linguistic approach of *Radical Argumentativism*, developed by Jean-Claude Anscombre and Oswald Ducrot, which highlights the inherent presence of argumentation within language itself. Their theory of *argumentation dans la langue* (cf. Anscombre and Ducrot, 1983) posits that language is fundamentally imbued with argumentative potential. This perspective underscores the idea that argumentation is neither exceptional nor specialized but deeply embedded in the very structure of human communication and interaction.

Argumentation is thus a practice that permeates various human activities and thus cannot be strictly categorized as a text genre. However, it is also clear that certain discourses can be described as *more overtly argumentative* than others. Opinion articles, advertisements, academic papers, and political debates, for example, can be classified as argumentative texts. Evidently, these texts do not necessarily share formal features, nor are they *entirely* argumentative, meaning that not every sentence or sequence within them can be analysed as *per se* having an argumentative function or nature. This raises a crucial question: how can we define and identify argumentative discourse? The defining characteristic of an argumentative text or sequence can be found in its *dominant underlying argumentative intention*.[12]

The term "intention" is not used by chance, drawing from the pragmatic tradition, which views language as a form of action through which the speaker affects reality. Pragmatics and Speech Act Theory analyse meaning in terms of *speaker intention* – i.e., the effect the speaker seeks to achieve through their utterance. This perspective is foundational to the *Congruity Theory*, an approach developed by Rigotti and Rocci (Rigotti, 1993; 1994; 2005; Rigotti and Rocci, 2001; 2006), which applies this pragmatic framework to text interpretation.

> The *meaning* of an utterance coincides with its intended effects, that is to say, with the change that it brings about in the context – yet more precisely in the *intersubjectivity* of the interlocutors. [..] Consistently, the meaning of a whole text, that is of a connected sequence of utterances, is equated with the overall intended change of this complex action. (Rigotti, 2005:77-78)

[12] It is important to stress that this "dominance" is not determined in quantitative terms: a novel is not narrative because the majority of its sequences are narratives, nor the argumentative nature of a text can be calculated counting the number of argumentative sequences. It is rather a *hierarchical* dimension: we can say that the *main* and *global* intention of a novel is that of *telling a story*.

According to this view, texts function similarly to utterances, in that their meaning corresponds to a *global intention*, which defines the nature of the text and guides its interpretation. This overarching intention also ensures *textual coherence*, as it represents the objective toward which the text's sequences contribute. *Discourse relations* among sequences are thus defined in terms of this intention, which can be conceptualized as a *predicate* that takes text units as arguments.

> The *coherence* of a text, and indeed its *meaningfulness*, can be accounted for if we represent the text as a hierarchy of *predicate-argument* relations holding between the text sequences at different levels and connecting each sequence to the whole text. (Rigotti, 2005:78)

These pragmatic and relational predicates, termed *connective predicates*, define the discourse relations between text units. Much like semantic predicates, they impose preconditions on their arguments, thereby determining the conditions necessary for textual coherence. If these preconditions – understood as presuppositions – are not met, the predicate-argument congruity, and thus textual coherence, fails to be realized. As Rigotti (2005:81) explains:

> […] not only we can explain the different lexical or grammatical presupposition triggers in terms of predicates that impose presuppositions on their arguments, but it is also possible to treat in similar fashion the coherence and illocutionary felicity of entire texts.

Discourses, like utterances, present a global intention to which each component contributes:

> […] the connective predicate characterizes the utterance by specifying what the speaker does to the addressee with her utterance. In a multi-utterance text, each utterance represents a relatively autonomous stage in the accomplishing of the intended effect of the whole text, i.e., the change in the context that the text is attempting to operate. (Rigotti, 2005:82)

Within this framework, argumentation is analysed as a connective predicate that takes premises (both explicit and implicit), a conclusion, as well as the speaker and the hearer as its arguments. In terms of argument presuppositions, the conclusion must be a proposition not yet accepted by the hearer – otherwise, there would be no need for argumentation – while the premises must be mutually accepted by both speaker and hearer.

Additionally, an inferential relation must exist between the premises and the conclusion, ensuring that the premises justify the conclusion.

The Congruity Theory framework, briefly outlined above, provides a well-founded rationale for understanding how texts function and what characterizes an argumentative discourse.

2.2. Between rhetoric and dialectic

The previous discussion provided several elements to detail the nature of argumentation and its conceptualization by Aristotle and subsequent thinkers. This section aims to clarify the Aristotelian framework by offering a focused characterization of *rhetoric* and *dialectics*, two disciplines that are central to his theory of argumentation.

At the beginning of *Rhetoric*, Aristotle describes rhetoric and dialectics as *antistrophos* of each other. The term *antistrophos* is multifaceted, meaning "specular", "analogous", or "counterpart". In ancient Greek theatre, *strophe* and *antistrophe* referred to two parts of the choir, akin to a voice and its countermelody. This analogy suggests that while rhetoric and dialectics share structural similarities, they remain nonetheless distinct.

As Aristotle explains, both disciplines are universal in scope, transcending specific fields of knowledge and addressing potentially every aspect of human life. They are foundational *arts* that everyone should possess, as all individuals may find themselves needing to construct arguments, deliver speeches, defend their actions, or accuse others. However, despite their shared universality, rhetoric and dialectics differ fundamentally in their aims, means, and contexts.

The primary distinction lies in their aims. Rhetoric, as Aristotle defines it, is the art of *knowingthe appropriate means of persuasion* [13] *for a specific communicative context*. It is oriented toward influencing an audience or judge, often in contexts where decisions must be made about contingent human affairs. Dialectics, by contrast, is the art of dialogically exploring shared knowledge to uncover truth. Its aim is to discern *ἀλήθεια* (truth), while rhetoric is concerned with *εἰκός* (the plausible). The term *εἰκός* refers to what appears to be true or verisimilar, which resembles truth but is not necessarily absolute. This distinction underscores that rhetoric deals with issues that lack *absolute* solutions.

[13] For Aristotle, *knowing* the means of persuasion is aimed not only at *using* those means, but also – and maybe even more importantly – to recognize and detect them when used by others' discourses, as a way to evaluate them and to elaborate a more critical judgement.

Rhetoric concerns the knowledge of *adequate*[14] persuasive means, which Aristotle terms *πίστεις*[15] (proofs). These are divided into *ἄτεχνοι* (inartificialia) and *ἔντεχνοι* (artificialia). The *ἄτεχνοι* proofs include external evidence that cannot be constructed by the speaker, such as documents or testimonies. In contrast, the *ἔντεχνοι* proofs are built through discourse itself and fall into three categories: those realized through logic and reasoning (*λόγος*), those grounded in the speaker's character (*ἦθος*, ethos), and those that appeal to the emotions of the audience (*πάθος*, pathos). Among the *logical* proofs (*λόγος*), Aristotle identifies two primary tools: *παράδειγμα* (examples) and *ἐνθύμημα* (enthymemes).

A second distinction concerns the means employed. Both dialectics and rhetoric employ inferential reasoning, but the nature of their syllogisms differs. Dialectical syllogisms are complete and based on necessary premises, aiming at rigorous logical

[14] Adequate means adequate to the context, as rhetoric is inherently context dependent.

[15] The term *πίστις* primarily means "trust", "confidence", and "persuasion" in the resultative meaning of "being persuaded"; but *πίστις* is also what persuades and allows to trust someone, and in this sense means "commitment" (I trust someone because they gave me their word) or "proof", "argument" (the means of persuasion). *πίστις* shares its root (*πιθ-*) with the verb *πείθω* ("persuade") and the middle-passive voice *πείθομαι*, that means literally "to be persuaded" or "obey" that is a resultative: as I am persuaded, I will obey, following what my interlocutor said. It descends from the Proto-Indo-European root **bheidh-* that meant "to tie" – the English verb *to bind* (as well as the German *binden*, the Dutch *binden* and the Danish *binde*) descend from that same root. In ancient Greek, *πεῖσμα* – same root – is the rope, and *πιστός* is the *loyal*, someone who's *bound*, but also the *faithful* and *trustworthy*: is someone capable of keeping one's word, that I can thus trust. The same root also originated the Latin root *feid-*, and the verb *fido* ("to trust"), *fides* ("trust" and "faith") and *foedus* ("pact" or "alliance"). A *foedus* is something that binds people together, in virtue of which they can trust each other. However, the word *fides* translates only part of the semantic spectrum of *πίστις*. As we saw, to indicate the persuasive means (the proofs, the arguments) Latin uses the word *argumentum*, which we already discussed. To the verb *πείθω* corresponds *persuadeo* (which clearly originates the English word *persuade*, as well as the Italian *persuadere*, the Spanish *persuadir* and the French *persuader* – among others). *Persuadeo* comes from the verb *suadeo* that descends from the same root as *suavis* ("sweet"): *suadeo*, alongside with "to advise, to suggest", originally is "to charm, to fascinate" the interlocutors, so that they are keen to accept your suggestions. The prefix *per-* is an intensive prefix: if *suadeo* is advising with charm, seductively, *persuadeo* is the stronger and more intense act: to persuade. Someone can be charming and convey confidence, so that I tend to accept what they say (when we like someone, and we are amazed by their person, we tend to believe, or at least not challenge, their opinions); but persuasion is stronger, and it is intentional. Interestingly, we also use the term *to convince* (cf. the Italian *convincere* or the French *convaincre*) that comes from *cum vincere*, literally "win through something": it is the act of winning someone else, not in a fight but in a dialogue, by the use of means; who's persuaded is *won* by the arguments of the other. People can be trusted either by virtue of a commitment they make and honour, they show being trustworthy, or because they provide proofs of what they say, arguing to make acceptable their standpoint.

conclusions. Enthymemes, on the other hand, are rhetorical syllogisms that are incomplete and rest on plausible premises known as *ἔνδοξα* (*endoxa*). The term *ἔνδοξος* originates from *εν* ("in") and *δοξα* ("common opinion") and refers to propositions rooted in shared or commonly held beliefs[16]. Because these premises are generally accepted – at least within a particular cultural or social context – they can often remain implicit (see also Jackson and Jacobs, 1980), which is why enthymemes are frequently described as "incomplete".

A final distinction concerns the contexts and communicative situations in which rhetoric and dialectics operate. Dialectics is primarily dialogic and dyadic, occurring within a setting of question-and-answer exchanges (*oratio intercisa*). This interactive format involves *indefinite* questions that often function as premises (*πρότασεις*) taking the form of requests of confirmation, aiming to investigate and scrutinize an issue collaboratively. The goal is to refine understanding and approach truth through methodical dialogue. In contrast, rhetoric is a public art characterized by *oratio continua* (continuous discourse), longer monological discourses. It unfolds in public settings and is primarily monologic, intended to persuade an audience or adjudicator. The rhetorical situation is triadic (often referred to as *rhetorical triangle*), involving three key actors: the protagonist, the antagonist, and the judge (*κριτής*, kritès). Even when the audience is not explicitly called upon to issue a formal judgment, they implicitly assume the role of a judge by forming an internal evaluation of an argument.[17] Thus, the audience becomes a crucial component of the rhetorical context, as the speaker must appeal to their reasoning, emotions, and values to achieve persuasion.[18]

[16] We said above that a reasonable argumentative procedure starts from *shared premises*.

[17] A contemporary practice that exemplifies this dynamic is that of advertising. Companies' advertisements are monological discourses – that can take different forms – with a persuasive objective: convincing people to buy certain products. Customers do not *vote* and are not required to express a judgement, but they need to form in their mind an opinion and decide what to buy – and the act of buying in a way embodies the act of voting. Another example can be the journalistic genre of opinion articles, in which journalists express their opinion on relevant matters, trying to convince people of such evaluations. This kind of discourses do not ask for an explicit response, as the citizens are not called upon to vote, nor to make a choice (as in the case of buying); however, they are asked to form an opinion in their mind (we might add, critically evaluating the arguments of the writers) which can shape, more or less directly, their future actions.

[18] The importance of the *audience* in argumentation is recognized and highlighted also in some modern theory; in particular, Chaim Perelman and Lucie Olbrechts-Tyteca in their seminal work *La Nouvelle Rhétorique* (1958)

Through these distinctions, Aristotle highlights the complementary nature of rhetoric and dialectics. Both disciplines are indispensable tools for navigating human discourse, equipping individuals to reason, persuade, and uncover truth within the complexities of life. Their interrelation underscores the broader relationship between reason, language, and reality, which remains a cornerstone of argumentation (theory).

2.3. Modern argumentation theory

After a golden age in Classical Antiquity, argumentation experienced another flourishing period during the Middle Ages, when rhetoric and dialectic formed the core of the system of knowledge. This era saw these disciplines undergo a significant process of systematization, with rhetoric and dialectic, along with grammar, becoming central components of the *Trivium* – the foundational trio of the liberal arts. The educational and intellectual landscape of the Middle Ages thus placed a strong emphasis on the cultivation of argumentative skills, with these disciplines serving not only as means of persuasion but also as methods for discovering truth and resolving disputes.

However, following this period of intellectual splendour, argumentation began to decline in the Modern era, overshadowed by the rise of rationalism and the *ethica more geometrico demonstrata* – a formal, mathematical approach to ethics and knowledge. The intellectual framework of modernity, heavily influenced by Cartesian principles, subordinates reasoning to method, reducing logic to a formalized, mathematized discipline aimed at serving the empirical sciences. Within this framework, dialectic, once understood as a logic rooted in dialogue and designed to discover truth through collaborative effort, gradually disappeared from the forefront of intellectual practice.

At the same time, rhetoric, once a broad and multifaceted discipline, underwent what Gerard Genette terms a "contraction" of its domain. Initially encompassing a wide range of communicative practices, rhetoric progressively narrowed in focus. In his work *La Rhétorique Restreinte* (1970), Genette observes that rhetoric first contracted to the study of *elocutio*, specifically the stylistic aspects of literary texts. Over time, however, this focus further shrank until rhetoric was confined solely to the analysis of rhetorical figures, particularly tropes. This reduction reflects a broader trend in the modern intellectual

assign a central role to the audience and theorize the notion of *universal audience* that is opposed to that of *particular audience* and represents an idealized group that embodies rationality and reasonableness.

tradition, where rhetoric, once seen as central to all forms of argumentation and public discourse, came to be regarded as a specialized and somewhat marginal field of study.

The shift from a dialogical, exploratory model of reasoning to a more rigid, methodical system, which led to the marginalization of dialectic and the constriction of rhetoric to a peripheral sub-discipline within literary studies, marks a significant turning point in the history of argumentation.

A process of positive recovery began in the second half of the twentieth century; in particular, 1958 is famously remembered as the year of the European renaissance of argumentation theory, marked by the publication of *La Nouvelle Rhétorique* by Chaim Perelman and Lucie Olbrechts-Tyteca and *The Uses of Argument* by Stephen Toulmin. Both these works, and the renewed interest for argumentation, arises precisely from the perception of the insufficiency of reductive forms of rationalism. The need to move beyond the limits of geometric logic and rationality reemerges, with a focus on understanding the use of reason in social practices. The work of Perelman and Olbrechts-Tyteca is a systematic recovery of the Aristotelian rhetorical heritage, which brings to light the connection between rhetoric and argumentation. *The Uses of Argument*, criticizing the analytic philosophy and the formalist, positivist logic, shifts the focus from the formal correctness of arguments to their uses and the various contexts of argumentation, reviving the dialogical dimension that characterized argumentation from classical antiquity through the Renaissance. For Toulmin, the criterion for evaluating an argument is linked to its field of application: the "goodness" of an argument is not determined by its logical correctness but by its relationship to the context: it is *field-dependent*. Toulmin also proposes a model for reconstructing the structures of arguments, allowing for the determination of the inferential link between premises and conclusion.

The works of Perelman and Olbrechts-Tyteca and Toulmin initiated the renaissance of argumentation theory and its establishment as an autonomous discipline: "[p]rogenitors of modern argumentation theory are Toulmin (1958/2003) and Perelman and Olbrechts-Tyteca (1958/1969), whose "neo-classical" contributions started modern argumentation theory" (van Eemeren and van Haaften, 2023).[19] Since the late 19th century,

[19] Other works and authors contributed to the development of modern argumentation theory. Among others, Charles Hamblin's seminal work *Fallacies* (1970); Rupert Crawshay-Williams with the work *Methods and criteria of reasoning. An inquiry into the structure of controversy* (1957); Arne Naess' *Communication and argument.*

argumentation theory has undergone substantial evolution, elaborating a more comprehensive theoretical framework (cf. van Eemeren and Grootendorst, 1984; 1992; Woods and Walton, 1989; Walton and Krabbe, 1995) and developing well-defined analytical methods (Freeman, 1991; Snoeck Henkemans, 1997; van Eemeren and Grootendorst, 2004).

Some key lines of development in argumentation theory include the *contextual turn*, *interdisciplinary integration*, and advancements in *computational approaches* to argumentation. Among these, the *contextual turn* marked a pivotal shift, emphasizing the importance of context in understanding, analysing, and evaluating arguments. Rigotti and Greco (2009b) underline that the establishment of argumentation theory as a distinct discipline with its theoretical foundations coincided with the recognition of argumentation as inherently communicative and contextual (cf. van Eemeren and Grootendorst, 1984, 2004; Walton and Krabbe, 1995; Walton, 1998a; 1998b). This communicative nature implies that argumentation cannot be fully understood in isolation from its situational and pragmatic dimensions. Context encompasses the situational, cultural, and institutional settings in which argumentation occurs, shaping the meaning and effectiveness of arguments. Consequently, understanding argumentation involves reconstructing not only the logical structure of arguments but also the interplay of the participants' intentions, roles, and the norms of the communicative event. The Pragma-Dialectical approach places the concept of *context* at its core, viewing it as a key element for understanding argumentation that is both effective and reasonable within a specific context. [20]

This "contextualization" of argumentation theory, in turn, corresponded to a growing interest in argumentation within disciplines that focus on specific contexts and applications (Rigotti and Greco, 2009b:9). Thus, argumentation theory began to contribute to context-specific studies, simultaneously drawing insights from these disciplines while offering tools to enrich and expand their analytical frameworks. It is important to emphasize that focusing on real and contextualized argumentative interactions has led to

Elements of applied semantics (1966); and Manfred Kienpointner's *Alltaslogik* (1992). However, retracing the whole history of the discipline and of the different works that, in many ways, contributed to its renaissance and contemporary configuration, it is not in the main scope of this work. On this topic, I refer to (van Eemeren, 2017a; 2018; van Eemeren and van Haaften, 2023).

[20] Aristotle himself was conscious of the relevance of context for rhetoric, as the previous paragraphs remarked in many ways.

significant theoretical advancements and refinements in argumentation theory, particularly in the development of the Pragma-Dialectical approach (Palmieri, 2010:28; cf. van Eemeren, 2010). As van Eemeren (2017a) underscores, the evolution of the theory is intrinsically linked to the study of *argumentation practices*, demonstrating how practical engagement informs and enriches theoretical development.

2.4. An integrated framework: the Pragma-Dialectical theory and the Luganese semantic-pragmatic approach

As anticipated in §1.1 and §1.4.1, in the present dissertation I assume as analytical framework the Pragma-Dialectical approach in the reinterpretation proposed by the Lugano school of argumentation. In this revised model, the central notions of the Pragma-Dialectical framework are generally retained in their original form, albeit with some revisions and modifications; its main distinctive feature lies in the central role assigned to the reconstruction of inferences achieved through the integration of the *Argumentum Model of Topics*. The next paragraphs present the key elements of the Pragma-Dialectical approach to illustrate this framework, with a specific focus on the notions of argumentative indicators (§2.4.1.4) and argumentative patterns (§2.4.1.5). The final section is devoted to the Argumentum Model of Topics, which serves as the analytical framework for reconstructing and examining the inferential configurations instantiated by evidential arguments in Chapters 8 and 9.

2.4.1. The Pragma-Dialectical approach

Pragma-Dialectics emerged in the 1970s through the collaborative work of Frans van Eemeren and Rob Grootendorst. This approach integrates a dialectical perspective with insights from *pragmatics*, the discipline concerned with the use of language in communication and context.[21] Pragma-Dialectics incorporates both an analytical-descriptive approach and a philosophical, normative component, making it a comprehensive framework for studying argumentation. The primary goal of this approach

[21] In particular, Pragma-Dialectics employs John Langshaw Austin's *speech act theory*, and the notions of *cooperation* and *relevance* as elaborated in John Searle and Paul Grice. These concepts will be briefly discussed in §2.1.5.2. For a discussion of the speech act perspective in Pragma-Dialectics, see van Eemeren and Grootendorst (1984; 1991; 1992) and van Eemeren (2015:275–318).

is to offer a method that is both theoretically grounded and practically useful for reconstructing, analysing, and evaluating arguments in real-world contexts.

Central to Pragma-Dialectics is the *critical* dimension of argumentation, which is aimed at providing a model for evaluating the quality and effectiveness of argumentative discourse. The normative aspect of the approach underscores the importance of reasonable dialogue in resolving disagreements. In this framework, argumentation is seen as part of a *critical discussion* aimed at solving an *issue* (the "question" at hand). The process involves an arguer (the protagonist) who presents a series of reasoned arguments in support of a specific *standpoint*, with the goal of resolving the *difference of opinion on the merits* (cf. van Eemeren and Grootendorst, 2004).

A key concept in Pragma-Dialectics is the notion of *reasonableness*, already discussed in §2.1, which dictates that arguers must uphold standards of rationality and fairness throughout the discussion. However, this dialectical aim of maintaining reasonableness does not operate in isolation from a rhetorical goal. As van Eemeren and Houtlosser (2002) point out, arguers also have the objective of *convincing* a judge and winning the dispute. This dual focus on reasonableness and *effectiveness*[22] creates a tension between ensuring the argumentative process remains fair and rigorous while also being persuasive. To address this, Pragma-Dialectics introduces the concept of *strategic manoeuvring* (van Eemeren and Houtlosser, 1999; 2002; see §2.4.1.3), which refers to the arguer's efforts to navigate and balance these competing goals – maintaining the acceptability of the argument while strategically attempting to influence the audience and achieve the desired outcome.

2.4.1.1. The model of critical discussion

Van Eemeren and Grootendorst, within their theory, propose a *model of critical discussion* that elucidates the distinct stages involved in resolving differences of opinion and the verbal moves that constructively contribute to each stage (see van Eemeren and Grootendorst, 1984; 2004). They identify four constitutively necessary phases for the resolution of a critical discussion. Each phase is realized through verbal interactions, comprising various speech acts that fulfil specific roles.

[22] A comprehensive discussion of the notions of reasonableness and effectiveness and their relation is provided in van Eemeren and van Haaften (2023, §3).

In the *confrontation stage*, the disagreement is articulated: it becomes evident that a particular standpoint is not accepted because it encounters doubt or contradiction (van Eemeren and Grootendorst, 2004:60). Divergences of opinion can be characterized along two axes: *simple* or *mixed* and *single* or *multiple*. The first axis relates to the nature of the divergence: when the protagonist advances a standpoint, the antagonist may either cast doubt on it (resulting in a *simple* dispute, as in (1)) or present an alternative standpoint (thereby generating a *mixed* dispute, as in (2))[23]. The second axis concerns the scope of the divergence: a *single divergence* focuses on one proposition (as in (1) and (2), where the discussion concerns only "*we should try this restaurant*"), whereas a *multiple divergence* involves several propositions, indicating that the disagreement spans multiple points, as in (3), where the proposal includes two separate aspects ("let's go to the cinema" and "(let's) see *Avatar II*").

(1) A: We should try this restaurant. (standpoint, p)

B: Do you think so? (doubt, $?p$)

(2) A: We should try this restaurant.

B: No, I don't agree. (counter-standpoint, $\neg p$) / Maybe we could try that one instead. (counter-standpoint, $q\ (\Rightarrow \neg p)$)

(3) A: Let's go to the cinema (p_1) and see *Avatar II* (p_2).

B: No, let's stay home!

The *opening stage* establishes the groundwork for the discussion. During this phase, participants strive to determine the extent of their shared common ground, encompassing elements such as the discussion format, background knowledge, and values. As van Eemeren and Grootendorst (2004:60) explain, this phase seeks "to determine whether their procedural and substantive "zone of agreement" is sufficiently broad to conduct a fruitful

[23] In the latter case, the two standpoints can be either *contradictory* or *contrary*. Contradictory standpoints arise when the protagonist asserts p and the antagonist asserts $\neg p$, such that no middle ground exists; one and only one of these standpoints can be true. By contrast, contrary standpoints occur when the protagonist asserts p and the antagonist asserts q, where q implies $\neg p$ (e.g., $q \Rightarrow \neg p$). Unlike in the case of contradiction, contraries do not necessarily exhaust all possible options, leaving room for a third standpoint to emerge. This distinction, rooted in logical theory, can be traced back to Aristotle's *Square of oppositions*, which systematically categorizes the relationships between different types of propositions and their truth values.

discussion". This agreement on basic procedural and substantive principles is essential for framing the dialogue constructively.[24]

The *argumentation stage* is the central phase, where the process of justifying the standpoint takes place. In this phase, the protagonist advances arguments in support of their thesis, while the antagonist critically examines these arguments, often employing *critical questions* to test their validity, relevance, and soundness. This phase represents the heart of the discussion, as it engages with the inferential processes that underpin the reasoning.

Finally, the *conclusion stage* aims to resolve the difference of opinion. Ideally, this phase leads to a resolution of the disagreement, whether by achieving consensus, retracting a standpoint, or demonstrating the untenability of an argument. However, the resolution of the divergence is not always guaranteed. In some cases, no agreement is reached, and the dispute remains unresolved, reflecting the complexities of argumentative discourse.

In the Lugano school's interpretation of this model, a preliminary stage – a sort of "phase zero" – is identified: the *issue stage*, namely the identification and definition of the issue under discussion. As discussed in §2.1.1, the Lugano school places particular emphasis on this dimension, as it constitutes the first and essential element of any argumentative exchange. Clarifying the question at stake – that is, identifying the issue the participants are effectively called upon to resolve – is crucial for the adequate development of the discussion. If the issue remains unclear or problematic, it becomes impossible to advance constructively toward its argumentative resolution.

Within the Pragma-Dialectical framework, the critical discussion model is explicitly conceived as an *ideal* model: "[t]he abstract notion of a critical discussion has been introduced in Pragma-Dialectics to represent the theoretical ideal of an argumentative discourse optimally instrumental in putting the acceptability of the standpoint at issue in the difference of opinion to the test" (van Eemeren, 2018:34). This model is central to the framework and serves a dual purpose. Firstly, it functions as a "theoretically motivated idealization […] that is designed to provide a clear and complete overview of all argumentative moves that are vital to resolving a difference of opinion on the merits by means of argumentative discourse" (van Eemeren, 2018:35). As such, it acts as both a

[24] According to van Eemeren and Grootendorst (2004), this phase is often largely implicit, because it is generally assumed that a common base exists.

heuristic and analytical instrument, facilitating the structured reconstruction of argumentative discourses. In this sense, this model not only theorizes how arguers construct their argumentation but also provides a tool for analysts – those who analyse the argumentative interactions – to reconstruct the argumentation.

> Without a clear view of the difference of opinion around which the argumentation centers, an adequate analysis of the argumentation cannot possibly be given, but it goes without saying that the analysis is much more encompassing. It is, for instance, necessary to determine in a well-considered way exactly which arguments are explicitly or implicitly adduced and what should happen in case it is not entirely clear whether or not a certain part of the discourse is to be considered argumentative. (van Eemeren et al., 2002:xiii)

Secondly, the model carries a *critical function*, providing a normative standard against which actual argumentative practices can be evaluated, particularly concerning the reasonableness and constructiveness of the moves made during the discussion. The evaluation, which represents a fundamental aspect of the analysts' work, "should be based on a solid analysis" (van Eemeren et al., 2002:92), and the analysis is, in turn, the "point of departure for the evaluation" (van Eemeren et al., 2002:xiii).

However, a significant gap emerges between the theoretical model and real-world argumentative practices. In reality, not all argumentative texts or discourses align neatly with the structured phases and operations outlined in the critical discussion model. Frequently, real argumentative interactions present disordered or incomplete phases, with fundamental components being implicit, ambiguous, or even entirely absent, while irrelevant or extraneous elements may be included. These discrepancies highlight the complexities of applying a normative and simplified framework to the inherently fluid and context-dependent nature of real argumentative discourse.[25]

[25]For this reason, the Pragma-Dialectical approach also defines criteria to determine whether a text is argumentative – especially when it is not explicitly presented as such. In their perspective, a discourse can be considered argumentative if it presents at least an argument and shows that it is designed to remove a doubt, genuine or presumed, about a standpoint. Moreover, as actual instances of argumentative texts cannot present explicitly all the elements foreseen by the critical discussion model, four types of *analytical transformations* that may need to be performed on the text to reconstruct the critical discussion are proposed. This aspect is discussed more in detail in §2.5.1.1.

2.4.1.2. The analytical overview

After the reconstruction of a discourse as a critical discussion, it becomes possible to develop what is called the *analytical overview*. This overview compiles all the elements relevant to the resolution of the discussion and provides a basis for its analysis. Specifically, six key points must be identified (seevan Eemeren, 2018:97):

"(a) The standpoints at issue in the difference of opinion and the positions adopted by the parties.

(b) The procedural and material starting points constituting the point of departure.

(c) The arguments explicitly or implicitly advanced by the parties for each standpoint.

(d) The argument schemes used to justify a standpoint in the various arguments constituting together an argumentation.

(e) The structure of the argumentation advanced by each of the parties in defence of a standpoint.

(f) The outcome claimed by the parties." (van Eemeren, 2018:97)

The first two points relate to the clarification of the divergence of opinions and the identification of the *argumentative moves* put forward by the arguer. First, the *issue* over which there is a disagreement must be identified. Next, the *standpoints* and *roles* adopted by the participants must be established. These roles are typically categorized as the *protagonist*, who advances and defends a thesis, and the *antagonist*, who questions or opposes it; in examples (1)-(3), A is the protagonist and B is the antagonist. Notably, these roles can sometimes overlap, as one individual may assume both roles at different points in the discussion[26], or groups may collectively fulfil these roles.

The *starting points* of the parties, established during the opening stage of the critical discussion, comprise the premises and discourse rules that form the common ground for the dispute. Identifying arguments requires attention to both the explicitly stated reasons in the text and the implicit premises (the Aristotelian *endoxa*) that the text evokes.

[26]It is the case, for instance, of monological polyphonic discourses, in which possible counterarguments and concessions are advanced, and one speaker/writer plays both roles.

Standpoints and starting points are among the *argumentative moves* that arguers can put forward in argumentative discourse, namely all discourse acts through which arguers operationalize a critical discussion.

An important aspect of the analysis is the *argumentative structure*, which describes the organization of the arguments supporting a standpoint. Argumentation may consist of a *single argument*, as in (4), or involve multiple arguments, forming what is known as *complex argumentation*.

(4) Let's try this restaurant. Mary recommended it to me.[27]

This complexity can take several forms:

Multiple argumentation: Independent and alternative arguments support the thesis. Each argument "stands on its own", meaning any one of them could independently defend the standpoint, as in example (5).

(5) Let's try this restaurant. Mary recommended it to me, and it is really close by.

Coordinative argumentation: The arguments are interlinked and must be considered together for their collective strength to defend the standpoint. This interdependence might arise because the arguments are individually insufficient or because one responds to potential objections to the other, as in example (6).

(6) Let's try this restaurant. It is really close by, and I don't have a lot of time.

Subordinative argumentation: A hierarchical chain of arguments in which each argument is itself supported by another argument. Here, each argument functions as both a reason for the higher-level standpoint and a sub-standpoint that is supported by a subordinate argument, as in example (7).[28]

[27] Even when we are in presence of a single argument, as in this case, there is nonetheless a second premise – an implicit one – that warrants the argument. In this case, the endoxon warranting the inference is something like "Mary is an expert in food and restaurants". See also §2.5 for the reconstruction of this argument.

[28] When a premise is in turn justified, it reveals that there is an explicit or implicit issue around that same premise. In such cases, arguers open what is defined as a *subdiscussion*, namely a discussion "inserted" or "embedded" (Krabbe, 2003) within another one, that serves the objective of making acceptable a proposition on which agreement was first lacking can be accepted in the second instance" (van Eemeren and Grootendorst 2004:147), and that is subsequently used as premise for a higher standpoint. For a discussion on this topic, see Schär (2021) and Greco (2022).

(7) Let's try this restaurant. It is got great reviews – a perfect 5 on TripAdvisor and 4 stars on Google.

While argumentation structures depict how the arguments are organized, *argument schemes* concern the "internal organization" of each single argument (van Eemeren and Grootendorst, 2004:4) and explicitly captures the type of relationship between an argument and the standpoint it supports. Although Pragma-Dialectics offers its own theoretical account of argument schemes, together with a classification into three broad categories (*symptomatic argumentation*, *argumentation based on comparison*, and *causal argumentation*), as already anticipated above (§1.1, §1.4.1, and at the beginning of §2.4), the present study adopts the Argumentum Model of Topics as its specific theoretical and analytical framework for the investigation of argument schemes. This model will be presented in §2.4.2.

2.4.1.3. Strategic manoeuvring

The first phase of Pragma-Dialectics development, commonly referred to as the "conceptualization phase" (van Eemeren, 2018:33; van Eemeren and van Haaften, 2023:349), was primarily focused on establishing the theoretical foundations of the framework. Central to this phase was the development of the model for critical discussion, which serves as the cornerstone of Pragma-Dialectical theory and provides, as van Eemeren and Houtlosser (1999:480) explain, "an analytic description of what argumentative discourse would be like *if it were solely and optimally aimed at resolving a difference of opinion*" (emphasis added). In this perspective, the critical discussion functions as an ideal model for analysis, premised on the principle of reasonableness. However, as previously discussed (§2.1 and §2.4.1), this dialectical principle does not operate in isolation; it coexists with a rhetorical dimension aimed at achieving persuasion. Pragma-Dialectics reconciles these dual dimensions of reasonableness and effectiveness through the concept of *strategic manoeuvring*, which marks the transition into the "*extended Pragma-Dialectical theory*" (van Eemeren and van Haaften, 2023:350; van Eemeren, 2010).

In this framework, argumentative discussants strive to balance the two (apparently) conflicting dimensions of *reasonableness* and *effectiveness*. The process of strategic manoeuvring reflects this effort, as arguers attempt to harmonize their adherence to dialectical norms with their rhetorical aim of persuasion. This manoeuvring is not confined

to a single phase but unfolds across all the stages of the argumentative resolution process. Each phase of a critical discussion is defined by a distinct dialectical aim. For example, in the confrontation stage, the aim is to clarify the difference of opinion, while in the argumentation stage, it is to test the merits of the standpoint. At the same time, participants in the discussion aim to achieve rhetorical advantages, making strategic moves that serve their own interests within the constraints of the given stage. As van Eemeren and Houtlosser (1999:484) note:

> The dialectical objective of a particular discussion stage always has a rhetorical analogue. And since the kind of advantages that can be gained depends on the dialectical stages, the presumed rhetorical objectives of the participants must be specified according to stage.

Strategic manoeuvring manifests in three key dimensions: *topical potential*, *audience demand*, and *presentational devices* (van Eemeren, 2010; 2018).

Topical potential refers to the arguer's strategic selection of argumentative content from a range of options available at each stage of the discussion. For instance, arguers can choose different interpretations or framings of the issue, crafting questions to suit their objectives; select specific starting points; or employ particular types of argument structures and schemes. By carefully managing topical potential, arguers shape the discourse in a way that aligns with both their dialectical and rhetorical aims.

Effective strategic manoeuvring also requires adapting arguments to meet *audience demand*, including the preferences, expectations, and knowledge of the audience. This adaptation ensures that the arguments resonate with the audience's concerns, values, and context. As Palmieri (2010:31) emphasizes, "arguments must be tailored to [the audience's] knowledge, concerns, expectations, situation, preference, sensibility, etc." This dimension demands significant insight into the audience, making it especially challenging in contexts of public communication involving diverse or multiple audiences with varying preferences and interests.

Finally, strategic manoeuvring involves selecting appropriate *presentational devices* at the communicative level. This entails choosing phrasings and stylistic means "that are most suitable for making a convincing case" (van Eemeren, 2018:112).

Through these three dimensions, strategic manoeuvring enables arguers to balance reasonableness with persuasiveness, engaging effectively in argumentative discourse while remaining within the boundaries of acceptable dialectical behaviour.

2.4.1.4. Argumentative indicators in discourse

As van Eemeren (2017a) emphasizes, while the theoretical framework developed during the conceptualization phase was a valuable tool, it lacked the capacity to fully account for how argumentation unfolds in real-life contexts and to capture "the distinctive features of the various argumentative practices" (van Eemeren, 2017a:327). To gain a deeper understanding of actual argumentative discourse, it became necessary to undertake an empirical analysis, systematically transitioning "from the abstract model of a critical discussion to the intricacies of argumentative reality" (van Eemeren, 2017a:327). This *empiricalization phase* focused on examining how analytically relevant[29] argumentative moves manifest in discourse, necessitating a qualitative and systematic investigation of verbal clues to reconstruct these moves (van Eemeren, 2016).

Central to this approach was thus the study of *argumentative indicators*, aimed at identifying linguistic expressions that signal argumentative functions, classifying moves based on their role in resolving disputes, and determining the conditions under which the various expressions effectively realize their argumentative function. This research was guided by the concept of *dialectical profiles*, which "specify the kinds of moves that can be instrumental in realizing the specific tasks of the discussants at a particular point in the discussion" (van Eemeren, 2016:5), thereby providing a framework for analysing strategic manoeuvring in real argumentative interactions.

Argumentative indicators were initially defined as "all words and expressions that refer to any of the moves that are significant to the argumentative process" (van Eemeren et al., 2007a:1). This definition was subsequently extended to encompass also non-lexical cues:

> Sometimes these indicators are provided by the way in which the argumentative moves are phrased, but they may also be immanent in the linguistic micro-context, the situational meso-context, the institutional macro-context or the intertextual context of the discourse. In addition, helpful clues are sometimes obtained by making logical and pragmatic inferences or by utilizing relevant general or specific background information. […] The indicators of the functions of argumentative moves thus examined are not only to be found in the way in which the argumentative moves are verbally or otherwise presented in the discourse, but also in the way in which the other

[29] Namely, relevant from the perspective of reconstructing a critical discussion.

> party responds to the argumentative move concerned and in the way in which the first party reacts to these responses. (van Eemeren, 2018:73-74)

This extended definition suggests that, beside words and expressions, also the pragmatic and dialogical development of the discourse, together with the logical-inferential connections, guides the identification of the moves and, thus, the reconstruction of the argumentative discourse. As Miecznikowski and Musi (2015:260) put it, "the usefulness of indicators for the analyst depends on their usefulness for the participants engaged in an argumentative interaction. […] What justifies the attribution of an indicator function to a linguistic expression is, then, the potential of the expression to guide interlocutors and readers in this task".

Van Eemeren et al. (2007a:1) also specify that "[t]he use of an argumentative indicator is a sign that a particular argumentative move might be in progress, but it does not constitute a decisive pointer". On the one hand, "not every move is necessarily accompanied by an indicator" (van Eemeren et al., 2007b:8). On the other hand, the presence of a word that can work as an argumentative indicator does not necessarily indicate that the sentence it appears in is actually an argumentative move. As Rocci (2009a:208) points out, such "non-conclusive nature of the indicator" can be due to the "*polysemy* of the linguistic structure involved" – such as, for instance, with the connective '*because*' which can introduce an argumentation as well as an explanation – or "it can also depend on the fact that the indicator does not *refer* to the argumentative move itself but to some other semantic or pragmatic categories, which, for a variety of reasons, can happen to be often – not necessarily always – concomitant with that argument move". Rocci (2009:208) distinguishes, in this context, between "direct indicators – which are signs that, in some of their uses, *refer* to argumentative moves (e.g. the connective *because*) – and *indirect* indicators, which refer to semantic or pragmatic categories *correlated* to argumentative moves".

The exploration of various argumentative indicators[30] shows that they can signal the advancement of a standpoint, the presence of a dispute – and the type of dispute – or, even, the distribution of the burden of proof in the confrontation stage; the proposal or assumption of a starting point in the opening or argumentation stage; the type of

[30] The Pragma-Dialectical research on argumentative indicators converged in the volume *Argumentative indicators in discourse* (van Eemeren et al., 2007a).

argumentative structure and the argument scheme employed. For instance, expressions as *I believe that*, *In my opinion*, *In my view*, *I think* are indicators of standpoints, while indicators of doubt or disagreement, e.g., *I am not sure about that*, *I have question / doubts about that*, *I disagree*, *I don't think so* signal the presence of a dispute (van Eemeren et al., 2007a).

Beside expressions similar to the ones just mentioned, also cues indicating the *force* of assertions[31] can work as indicators of standpoints (van Eemeren et al., 2007a). For instance, *modal expressions* can work as indicators in relation to the strength of standpoints (see Rocci, 2008a; 2008b; 2009a; 2009b). Specifically, they are generally recognized as argumentative indicators when conveying an *epistemic* reading, which pertains to the degree of certainty or possibility expressed in a statement (Rocci, 2008a; see Snoeck-Henkemans, 1997, 108-117).[32]

Premises are not always explicitly asserted but are often proposed or presupposed. As discussed earlier (see §2.1.1), Aristotle already regarded premises as questions (*πρότασεις*) because the arguer invites the interlocutor "to accept a proposition that is supposedly shared" (Greco and Rigotti, 2019:9). Both informative and rhetorical questions can function as proposals of a starting point in argumentation. However, rhetorical questions more clearly introduce a premise, as their propositional content is asserted by the speaker, whereas for standard informative questions, the argumentative interpretation relies on the dialogical context. For instance, in example (8), the first two questions are informative – since the doctor appears to genuinely seek an answer – but they are simultaneously designed to elicit the patient's concessions, which ultimately pave the way for the final rhetorical question (van Eemeren et al., 2007a:93), which introduces a standpoint.

(8) Patient: It is none of their business how I live. They should only […]
Psychiatrist: Are you still living with your parents?
Patient: Yes.
Psychiatrist: Are they paying for everything you need?
Patient: Yes.
Psychiatrist: Then how can they not interfere in your life?

[31] See for instance van Eemeren et al. (2007a) for a detailed discussion of the pragmatic nature of standpoints and other moves as speech acts.

[32] The argumentative function of epistemic modals and similar connectives, i.e., evidentials, is discussed more in details in Ch. 3, §3.5.2. .

(van Eemeren et al., 2007a:93; originally from van Eemeren et al., 1993)

First, we can observe that, as mentioned above, the argumentative nature of the first two questions is inferred from the context, as their function becomes clear when they are followed by a standpoint, which suggests that they serve to prompt the concession of premises. Interestingly, as previously noted, the final rhetorical question does not introduce a premise but instead serves as a means of advancing a standpoint. This highlights how the argumentative function of questions is not fixed but can vary depending on the context. The way a question functions within an argument can thus only be fully understood by considering its interaction with surrounding discourse and the broader dialogical setting.

Questions introduced by expressions as *Do you remember that* or *Do you agree that*, which are indeed informative, have the function of proposing a premise, as well as questions introduced by *Isn't it true that*[33].

While questions have the function of *proposing* a starting point, there are expressions which suggest that the premise has been accepted, or at least it is considered as such by the arguer. It is the case of expressions as *As you said* or *You said yourself*, indicating that the interlocutor himself asserted – and therefore accepts – the proposition.[34] Some expressions suggest an agreement between the participants as *As we agreed* or *We agreed that*, or that the proposition is generally accepted as *Everybody knows*; other expressions describe the proposition as irrefutable – *It is clear that*, *It is evident that* – or obvious – *It is obvious*, *Obviously, Of course*. Other indicators can be factives that presuppose the proposition, such as *Fortunately*, *Sadly*, *I regret that*.

The proposed starting points can be either accepted (wholly or with restrictions) or rejected; the moves of *acceptance* and *rejection of a starting point*, can be as well signalled by indicators. An unrestricted acceptance can be indicated by *Yes*, or *I agree*, *It is true*, etc., whereas concessive structures signal an acceptance with restrictions: *Yes*/*It is true*/*Of*

[33] These questions, however, occupy a nuanced position on the spectrum between informative and rhetorical questions. While they genuinely seek the interlocutor's opinion, akin to informative questions, they also implicitly convey the speaker's own stance by presenting the proposition as true, a characteristic of rhetorical questions. Hautli-Janisz et al. (2022:67) classify this particular type of question, which "fall between the categories of purely information-seeking and purely rhetorical", as *assertive questions*.

[34] These expressions and their argumentative functions will be discussed more in detail in Ch. 8, §8.2.2.

course but…, or even *but*, *however*, *although* alone indicate that the proposition is partially accepted but under some conditions.

As van Eemeren et al. (2007a) emphasize in their analysis, starting points are not always explicitly asked or proposed. In most cases, premises can be identified "only through the fact that they are used in the argumentation" (van Eemeren et al., 2007a:108) as they function as the basis for inferential reasoning. When explicitly marked, they may appear in expressions such as *My argument is that* or *The argument I'd like to employ is*. More commonly, however, they are signalled by inferential connectors like *because*, *for*, *therefore*, or *so*. Nevertheless, as previously noted, these expressions are inherently polysemic and can serve different functions depending on the context.

Indicators can also specify the type of argumentative structure, namely if we are in presence of a multiple, a coordinative or a subordinative argumentation. Snoeck Henkemans (1996; 2003) examined several expressions, showing how indicators are relevant cues in indicating how the argumentation is structured and, thus, for the reconstruction. However, these types of indicators are subject to the same issues mentioned above; for instance, the word "*and*" can evidently be used to connect two premises, and thus indicating the presence of a coordinative argumentation, as in (9)

(9) Let's try this restaurant. Mary recommended it to me, *and* she knows all the best spots!

but it could also be used to introduce a coordinative argumentation (as in (10)), a standpoint (as in (11)), or without any argumentative function:

(10) Let's try this restaurant. Mary recommended it to me, *and* it is really close by.

(11) Mary recommended this restaurant, *and* (so) I think we should try it.

On the other hand, two coordinated arguments are not always linked by "*and*", and even more are not always linked by a connective – for instance, we could have two juxtaposed sentences as in (12), or a subordinate sentence as in (13).

(12) We should try this restaurant. Mary suggested it. She really knows all the best spots!

(13) We should try this restaurant. Mary, who knows all the best spots, suggested it.

Clearly, the case of *and* is a particular complex one because of its wide range of uses.

Snoeck Henkemans (2003) points out that, along with the polysemy of words and expressions – she brings the example of *besides*, which because of its different meaning can allow both a multiple and a coordinative reading (Snoeck Henkemans, 2003:9) – another issue in the interpretation of indicators relies in the fact that "the indicators that are used to introduce the reasons can in some cases be overruled by indicators found in the standpoint" (Snoeck Henkemans, 2003:9).

Lastly, some expressions work as indicators of *argument schemes*, i.e., the inferential relation between an argument and its conclusion. For instance, van Eemeren et al. (2007a; Ch. 6) provide an overview of numerous words and expressions that make clear the exploitation of the argument from analogy – such as *it is similar to…*, *it is just as…* which suggest that a comparison between two entities is being made; of symptomatic argumentation – such as *is characteristic*/*typical*/*distinctive of…*, *is a sign*/*evidence of…*, *it shows that*…; and of causal argumentation – e.g., *is the cause of…*, *is the result of…*, *leads to*…, *consequently*/*thereby* etc.

Pragma-Dialectical research on argumentative indicators, as previously mentioned, began with the analysis of dialectical profiles to identify the key argumentative moves occurring at different discussion stages and, subsequently, the linguistic or textual cues associated with each move. This approach prioritized the reconstruction of argumentative moves before turning to the identification of their linguistic markers. In contrast, other studies have taken the opposite route, starting with a semantic and pragmatic analysis of specific expressions to determine their argumentative function before verifying their actual occurrence in argumentative discourse. This method has been applied to epistemic and evidential expressions (see §3.5.2.2) as well as to adversative connectives such as *aber* / *mais* / *ma* ('but') (Rocci et al., 2020).

Previous studies have extensively examined the role of *modals* – both epistemic and non-epistemic (Toulmin, 1958; Snoeck-Henkemans, 1992, 1997; Rocci, 2008a, 2008b, 2009, 2012, 2013a, 2017; Miecznikowski, 2011) – as well as *evidentials* (Musi, 2014, 2015, 2016; Musi and Rocci, 2016, 2017; Miecznikowski and Musi, 2015; Miecznikowski, 2018, 2020) as argumentative indicators. A detailed discussion will follow in the next chapter (§3.5.2), after introducing the categories of modality and evidentiality.

2.4.1.5. Contextualising argumentation theory: the notion of *argumentative patterns*

As previously discussed, argumentation theory experienced a contextual turn, shifting its focus progressively towards real-world argumentation practices and discourses; the Pragma-Dialectical approach underwent a parallel transformation. Following the *empiricalization* process, the theory in fact entered what is termed "*contextualization phase*". This phase entailed engaging with the complex, situated nature of argumentative discourse to analyse how real-life argumentative practices instantiate and specify the ideal model, allowing an evaluation – within the normative principle of Pragma-Dialectics – of argumentative discourses. That shift toward a contextualised analysis of argumentation implies examining the bidirectional relationship between context and discourse, analysing how argumentation unfolds within specific contexts and how such contexts influence and shape argumentative discourses. As van Eemeren (2018:34) elaborates, analysing instances of argumentative practices in a contextual perspective required "examining the way in which both the process and the product of argumentative discourse are influenced by the institutional preconditions of the argumentative practice in which the discourse takes place". These institutional preconditions include norms, conventions, and expectations inherent to specific communicative contexts, such as legal proceedings, political debates, academic discussions, or media interactions.

In this contextualisation process, Pragma-Dialectics expanded its analytical scope to encompass a wide range of argumentative phenomena[35] observed in real-life discourses. This involved not only examining how arguments are constructed and presented in practice but also considering the preconditions – both explicit and implicit – that shape these argumentative interactions within their respective contexts. In this framework, the concept of *argumentative patterns* was introduced as a key analytical tool to study how argumentation is realized in diverse communicative practices (van Eemeren, 2017a; 2017b; 2018). This concept serves to connect argumentation theory with argumentative practices, providing a systematic means to detail how the institutional preconditions of

[35] In particular, as detailed in van Eemeren (2017:327-330), this encompassed the study of *fallacies* in real-life argumentation; the analysis of *argumentative indicators*' role in the recognition of argumentative moves; the "development of a method for reconstructing real-life argumentative discourse" (van Eemeren and Grootendorst, 1992: 13-89), in particular through the *analytical transformations*; and lastly, the introduction of the *strategic manoeuvring*.

specific activity types influence the realization of argumentative discourse. Argumentative patterns, thus, contribute to bridging the gap between the abstract ideal model of critical discussion and the complexities of actual argumentative practices. An argumentative pattern is defined as

> a particular constellation of argumentative moves in which, in dealing with a particular kind of difference of opinion, in defence of a particular type of standpoint a particular argument scheme or combination of argument schemes is used in a particular kind of argumentation structure. (van Eemeren, 2018:150)

This definition highlights that argumentative patterns are composed of four key elements: (a) the type of issue addressed, (b) the logical nature of the standpoints expressed, (c) the structure of the argumentation supporting these standpoints, and (d) the types of argument schemes employed. To qualify as an argumentative pattern, all these elements must be specified, reflecting the context-sensitive and detailed nature of this analytical construct.

According to van Eemeren (2018:150-151), argumentative patterns vary in their occurrence and significance: "[a]lthough some of the argumentative patterns occurring in argumentative reality may well be incidental, certain argumentative patterns that come into being can be considered characteristic of the way in which argumentative discourse is generally conducted in a specific communicative activity type or cluster of such activity types." These particular argumentative patterns are defined *prototypical* (see van Eemeren 2017a; 2017b; 2017c) and "are immediately connected with the institutional preconditions for strategic manoeuvring applying to the communicative activity type concerned" (van Eemeren, 2018:151). These patterns serve as benchmarks for understanding how the unique features and constraints of an activity type influence the argumentative process. However, van Eemeren emphasizes that being prototypical does not imply frequent occurrence: these patterns may appear infrequently or even be absent in specific instances (2017a; 2017b; 2017c; 2018). When a prototypical pattern occurs relatively frequently in a given activity type, either compared to other patterns in the same context or relative to other contexts, it is termed a *stereotypical argumentative pattern*.

2.4.1.5.1. Pragma-Dialectical research on Argumentative patterns

To date, Pragma-Dialectical research on argumentative pattens has primarily focused on identifying and analysing *prototypical patterns* across a range of institutional activity types through qualitative methods. These contexts include politics (Garssen, 2015, 2016, 2017; Andone, 2016), law (Feteris, 2016, 2017; Andone and Coman-Kund, 2017), healthcare (Snoeck Henkemans, 2016, 2017) and academic settings (Wagemans, 2016). Many of the conducted works mainly focus on how a specific pattern – most notably, arguments employing pragmatic argumentation – is adapted across different communicative activity types, each governed by its own institutional constraints (see van Eemeren, 2016). The conception of patterns and the methodology adopted to investigate them is detailed in two special issues devoted to the research on patterns published on the *Argumentation* (30(1)) journal and on the *Journal of Argumentation in Context* (6(1)).

As these collections of papers show, the methodological approach typically adopted begins by theoretically reconstructing the institutional point and the *primary* institutional preconditions – that is, the "official, usually formal, and often procedural" rules and conventions that shape communicative practices in the given context (van Eemeren, 2016). On the basis of this theoretically grounded model of the context, researchers can formulate hypotheses regarding the types of argumentative patterns likely to occur, particularly those that are instrumental in achieving the institutional point of the activity. These hypotheses are subsequently tested through a qualitative analysis of selected texts, focusing on how patterns are deployed in actual discourse.

To illustrate this methodology, I present by way of example the methodological procedure followed by Garssen (2016) in his work on argumentative patterns in European parliamentary debates. He begins by outlining the institutional aim of the activity – namely, the collective deliberation and decision-making on legislative proposals introduced by a rapporteur. From this institutional setup, Garssen predicts that the main type of argumentation will be *pragmatic argumentation*, typically presented in the debate by the opposition. He then identifies the argument schemes most likely to be used to support or attack this type of argument and selects those most frequently employed by Members of the European Parliament. In doing so, he is able to determine the prototypical patterns characteristic of this institutional setting.

This procedure, adopted in several studies within the Pragma-Dialectical research on patterns, is theory-driven and, while it represents an attempt to investigate argumentation in context, it also raises a number of issues, which will be discussed and addressed in the next section and, more in detail, in Chapter 6 (§6.3.2).

Complementing these approaches, based on the strict Pragma-Dialectical conception of argumentative patterns, some scholars have adopted quantitative methods to detect and analyse patterns in large datasets. For instance, Degano (2016) uses corpus linguistics to identify argumentative patterns in UK prime ministerial debates, while Musi and Aakhus (2018) examine emergent patterns in *polylogues*[36] on energy, departing from the Pragma-Dialectical framework and redefining prototypical and stereotypical patterns.

2.4.1.5.2. An extended notion of argumentative pattern

There are various issues in the treatment of the notion of pattern, particularly in how the concepts of stereotypical and prototypical patterns are presented. Patterns are defined as a "*particular* constellation" (emphasis added); however, the nature of this *particularity* is not explicitly clarified. Any instance of argumentation – any sequence of argumentative moves – is inherently characterized by the presence of an issue, a standpoint, an argumentative structure, and an argument scheme. Thus, stating that a pattern is defined by these elements provides little additional insight. Simply put, I question how one can determine, when analysing a sequence of moves, whether it constitutes a pattern – what, fundamentally, makes a pattern a pattern. A trivial straightforward assumption might be that a pattern is defined by its recurrence, meaning that it identifies a recurrent configuration. However, as previously discussed, frequency of occurrence is not, in itself, a defining characteristic of patterns but rather of stereotypical patterns – which is a specific subset of argumentative patterns. Alternatively, one might distinguish a pattern from other instances of argumentation based on its connection to the activity type; that is, an argumentative pattern could be identified as a sequence that is clearly linked to the features and constraints of the discourse type in which it appears. Yet, this is not a general property

[36] Kerbrat-Orecchioni (2004:3-4) adopts the term *polylogue* to indicate "all communicative situations which gather together several participants, that is, real live individuals" including situations that "involve variable numbers of participants, ranging from four […] all the way to a theoretically infinite number of participants". Lewiński and Aakhus borrow the term applying it to argumentative studies that address "multi-party and multi-position discussions" (Lewiński and Aakhus, 2014:161). This notion will be further discussed in Ch. 4, §4.2.2.

of argumentative patterns but is instead specifically attributed to prototypical patterns. This leads us to an open question: what, ultimately, defines a pattern as a pattern?

A tentative answer to this question has been proposed in recent studies, which extend the notion of argumentative patterns to identify the conditions that define and distinguish them at a general level. These works seek to clarify the criteria that determine when a specific configuration of argumentative moves can be recognized as a distinct pattern. Expanding the application of argumentative patterns to new domains, particularly in financial communication, where the Pragma-Dialectical approach has been adapted to account for the distinct characteristics of financial discourses (Lucchini et al., 2022; Rocci et al., 2024; Palmieri et al., 2025), they advocate for a broader notion of argumentative patterns which tries, at least partially, to solve the issue above discussed. This broader, adapted conception of argumentative patterns, which will be detailed in §6.4, differs from the classical one presented above in that it encompasses instances of argumentatively relevant constructions that are underspecified in terms of issue and standpoint type, argumentative structures, and schemes. For instance, as we will see more in detail in §6.4.3, various types of constructions can be conceptualized as argumentative patterns inasmuch a) they are argumentative, being justifications for a standpoint (namely, the relevance of the question); b) are recurrent in a specific activity type and c) are prototypical of the activity type, meaning they are strictly related with the participants' incentives and constraints. However, there might be configurations that although have these characteristics are not defined in terms of the type of standpoint, the argumentative structure and the argument schemes employed, and the issue they respond to is a generic and implicit one, retrievable from the analysis of the activity type[37]. An example of this type of pattern is the construction of *prefaced questions* (see §6.4.3.1), which is rather *pragmatically* defined, always presenting the same structure in terms of speech acts; in fact, it consists of a question accompanied by an assertion[38].

In the present work, I adopt and further refine this extended notion of patterns, detailed in §6.3.2.

[37] This type of issues can be assimilated to the notion of *Question Under Discussion* (QUD) developed within discourse analysis (von Stutterheim and Klein, 1989; Ginzburg, 1996; Larsson, 2002).

[38] The structure is not always the same in the sense that the interrogative part as well as the assertive part can be composed by more or less sentences – the "basic" version is one question followed or preceded by one assertive sentence, but more complex instances with variable numbers and length can be found.

2.4.2. The Argumentum Model of Topics

The notion of *argument schemes*, introduced in §2.4.1.2, "refers to the inferential configuration of arguments in modern and contemporary argumentation studies" (Rigotti and Greco, 2019:viii). Formally introduced by Perelman and Olbrechts-Tyteca, this notion has its roots in the Aristotelian tradition of *topoi*, then reinterpreted in the Latin and Medieval tradition of *loci*. Argument schemes – or *topoi* or *loci* – "are always intended as abstract structures that generate or support (depending on the theory involved) a variety of arguments in real-life argumentation" (Rigotti and Greco, 2019:xii). In other words, they correspond to the type of inferential relationship, or of reasoning structure, between a premise and its conclusion.

Various theories and models of argument schemes have been proposed in the literature since ancient times – after Aristotle, Latin authors as Cicero and Boethius developed this concept, which was then transmitted and elaborated by numerous Medieval scholars and mutated in the Renaissance and in Modern authors (Rigotti and Greco, 2019:93). Contemporary theories, including Pragma-Dialectics, and various authors contributed to the research on argument schemes, developing their own approaches and taxonomies – it is worth mentioning the works by Steven Toulmin and Douglas Walton, which have been particularly relevant for the advancement in this subject.

The specific theory adopted in this work is the *Argumentum Model of Topics* (hereafter AMT), developed by the Lugano school starting at the beginning of the XXI century (Rigotti and Greco Morasso, 2009; 2010; Rigotti, 2006; 2009; Rigotti and Greco, 2019.), which specifically aims to define more precisely the elements of the "inferential configuration" of arguments. The AMT is an approach to the analysis of argumentative schemes that aims to represent the inferential configuration of arguments, that is, "to illustrate the structure of reasoning that underlies the connection between a standpoint and its supporting arguments" (Rigotti and Greco Morasso, 2010:490). The model "has the ambition of providing a theoretical and methodological tool to analyse the inferential configuration of arguments, as supported by loci" (Rigotti and Greco, 2019:vii) aiming at "proposing a coherent and founded approach to the study of argument schemes" (Rigotti and Greco Morasso, 2010:492).

The AMT is a theory of inference in argumentation that thus focuses primarily on the inferential configuration of arguments and, as such, does not intend to be a complete model of argumentation. In the understanding of argumentation more in general, the authors of

AMT explicitly adopt the Pragma-Dialectical model with which, beside certain specific divergences, they share a fundamental view of argumentation. Specifically, they share the conception of argumentation understood as a dialogical and social process for resolving a difference of opinion (Rigotti and Greco, 2019:ix). They have a similar interest in reconciling dialectic and rhetoric in a context-based analysis of argumentation – that is, both these approaches are meant to investigate argumentation in real-life discourses in different contexts.

Indeed, a fundamental element of AMT is that argumentation cannot be reduced to a logical process, since "the acceptability of the standpoint depends not only on an inferential principle but also on how the argument is anchored in the context and, in particular, to the premises shared by the interlocutors" (Rigotti and Greco, 2019:209). The transfer between the acceptability of the premises and the acceptability of the thesis is guaranteed in the AMT by the combination of two dimensions inherent in every argumentative scheme: the *procedural dimension*, which coincides with the inferential connection activated, and the *material-contextual dimension*, which ensures the applicability of the inference to the actual situation considered in the argument.

> The AMT, however, also recognizes that the analysis of the inferential configuration of arguments cannot stop at the level of abstract inferential rules, such as maxims, and of sources of arguments, such as loci. We acknowledge that real-life argumentation also includes premises that come from the interlocutors' common ground, including their cultural values, knowledge, and the expectations of the institutional and personal contexts that they share and reinterpret throughout their process of interaction. For this reason, the AMT includes a material-contextual component of argumentation, which instantiates or anchors the locus and maxim in a specific context. (Rigotti and Greco, 2019:xiii)

Within the procedural component of the AMT, the inferential configuration of an argument unfolds across three interconnected levels: *locus*, *maxim*, and *logical form*.

At the first level, the *locus* represents the source or ontological relation on which an argument is based – for example, relations such as cause-effect, definition-defined, or analogy. Each locus expresses a fundamental connection between two poles (e.g., cause and effect) and can therefore be interpreted bidirectionally (from cause to effect or vice versa). Essentially, the locus specifies the relation between premise and conclusion,

although it is not sufficient to clarify *how* such relationship determines the inferential configuration – *how it works* (Rigotti and Greco Morasso, 2010:494). In fact, at the second level, the locus gives rise to a set of *maxims*, inferential principles – as Rigotti and Greco Morasso (2010:496) specify, these are not mere rules, as they are functionally akin to semantic postulates or logical axioms which are by definition true – that specify how the ontological relation functions within reasoning. To each locus correspond several maxims, and each maxim defines a subset of possible arguments derived from that specific locus. Maxims, moreover, specify the *direction* of the ontological relation that is invoked in a specific argument.

At the third level, each maxim activates a logical form, determining the formal structure of inference. Typical logical forms include *modus ponens*, *modus tollens*, and *disjunction*. For example, the maxim "*If the cause is present, the effect will be present*" corresponds to modus ponens, whereas the maxim "*If the effect does not take place, the cause does not either*" activates the logical form of modus tollens.

In sum, the procedural dimension of AMT accounts for the inferential dynamics of argumentation by linking the ontological grounding of reasoning (locus), its inferential rule (maxim), and the logical structure that operationalizes this rule (logical form).

The inferential-procedural component, which clarifies how the argument works from a logical point of view, is not sufficient to reconstruct the argument – nor to assess its validity or strength in the discussion. Loci and maxims are abstract reasoning schemes that apply to large families of arguments; however, when speakers argue, they deploy premises that are not generic axioms but are rather pieces of information (or propositions) that pertain to the interlocutors' common ground. For this reason, it is necessary to postulate and analyse the *contextual-material* dimension, thanks to which the procedural component assumes relevance in a real-life argumentation.

This second component comprises the material-contextual starting points, which refer to the real and concrete situation of the context, which comprises in turn two elements: the ἔνδοξον (*endoxon*) and the *datum*. The notion of endoxa (plural for endoxon) derives from the Aristotelian tradition – "generally accepted opinions [endoxa] are those which commend themselves to all or to the majority or to the wise – that is to all the wise or to the majority or to the most famous or distinguished of them" (*Topics* 100b, 22-24) – and can be defined as general premises accepted by the relevant public in a specific argumentative situation (Rigotti and Greco, 2019:214). They correspond to the common

ground between protagonist and antagonist sought in the opening stage of the critical discussion. Since *endoxa* belong to the communicative background of the participants, they are often left implicit. The *datum*, on the other hand, is a factual premise, which expresses the concrete facts that have emerged in the situation, and which is usually the explicit part of the argument.

The various components of this model are represented in the structure in Fig. 2, which is the so-called "Y structure".

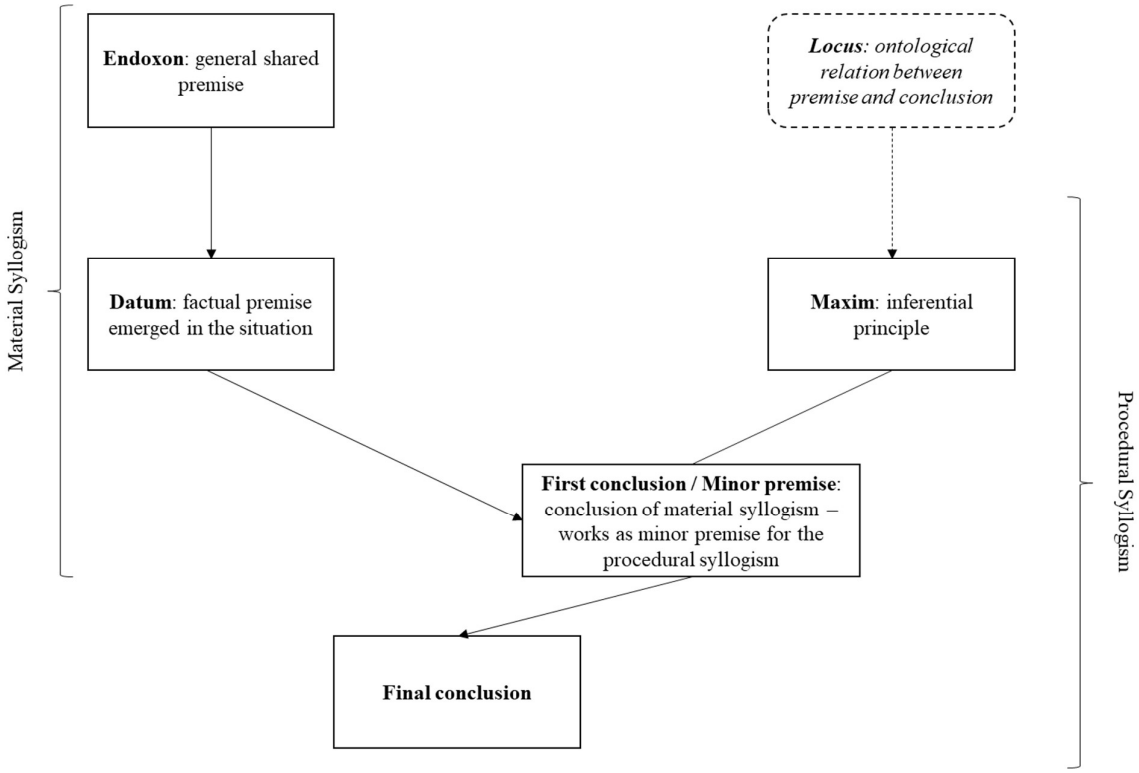


Figure 2. Schematization of a Y-structure

From a logical point of view, the endoxon and the datum implement respectively the major premise and the minor premise of a *material syllogism*. They interact to derive a proposition, the conclusion of this syllogism, which represents a *first conclusion* then exploited in the procedural dimension as a *minor premise* to which the maxim (working as *major premise*) can be applied, thus obtaining the *final conclusion* of the entire inferential configuration.

The AMT also offers a taxonomy of different loci, attempting at providing a helpful heuristic and analytical tool, and trying to assume an intermediate position between the

two poles of excessively precise and detailed lists and extremely concise taxonomies. In this sense, the AMT typology is inspired by classical classifications and their vocation as useful instruments, which provide a detailed – although not excessively long – list of *loci* and also maintain the distinction between locus and maxim. More specifically, the proposed taxonomy is largely inspired by Boethius' work – although it also takes into account the contemporary classifications and their enrichments.

As to the classification criterion, the AMT taxonomy depends "on the proximity of the state of affairs described by the standpoint and the state of affairs described by the argument" (Rigotti and Greco, 2019:250-251). This criterion, proposed by Cicero and systematized by Boethius (*De Topicis Differentiis*, 28), allows to distinguish *intrinsic*, *extrinsic* and *complex* loci.

Intrinsic loci express a relation *in praesentia* between the state of affairs described in the argument and the state of affairs described in the standpoint, that is, they belong to the same world. They include *definitional* loci (locus of definition, of genus and species, of property, of accident, of ontological implications), *circumstantial* loci (of part and whole, of time, of space), *causal* loci (of instrumental cause, of final cause, of material cause, of formal cause, of efficient cause), and loci of *concomitance*.

Extrinsic loci, instead, encompass relationships *in absentia*, meaning that the states of affairs described in the premise and in the conclusion belong to different (and in some cases even opposite) worlds, and are only indirectly related (Rigotti and Greco, 2019:251). Extrinsic loci comprise the *locus from opposition*, *from alternatives*, *from analogy*, *from termination and setting up*, and the *locus a fortiori* – or *locus from all the more and all the less*.

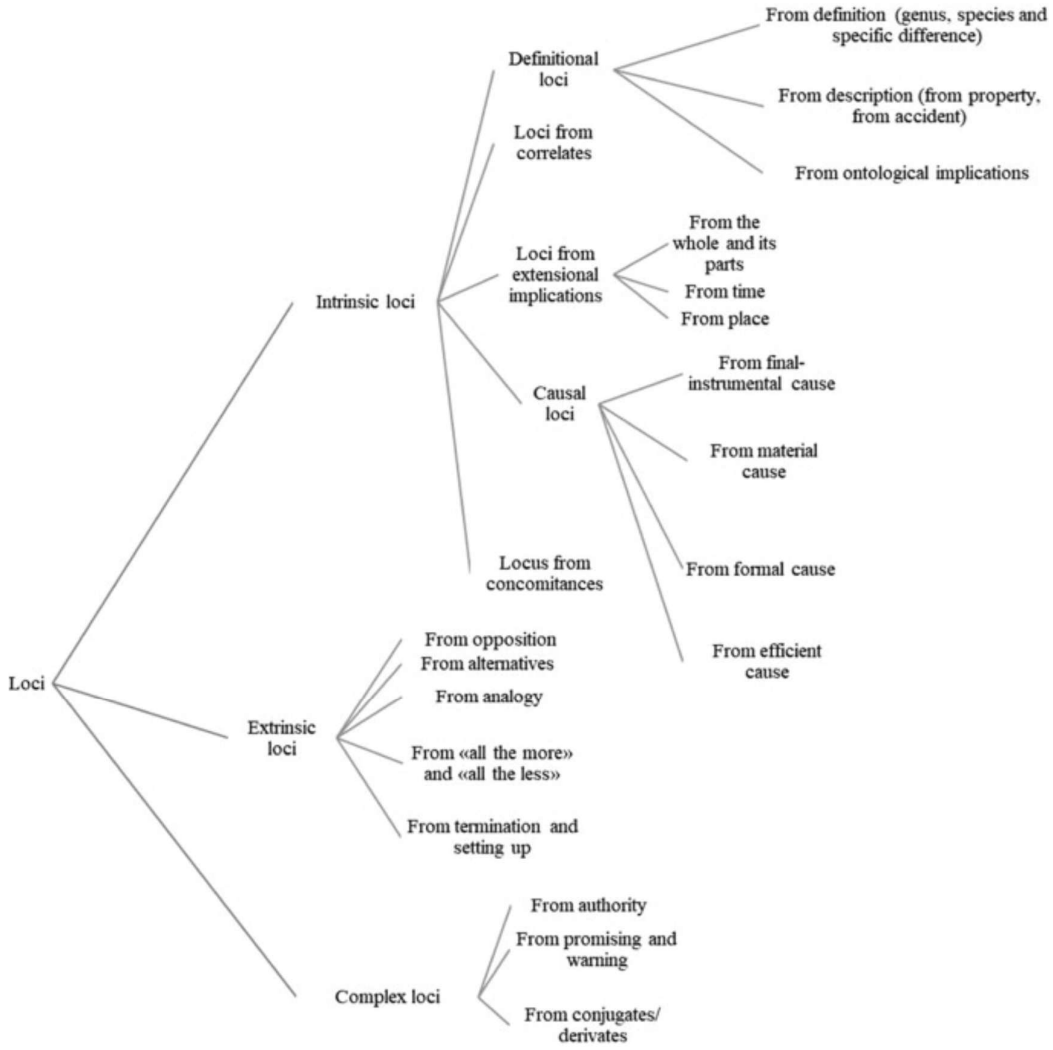


Figure 3. Taxonomy of loci from Rigotti and Greco (2019:253)

Lastly, *complex* (or *mixed*) loci include those relations that are not exclusively intrinsic nor extrinsic, but rather have a hybrid (mixed) nature, presenting elements proper to both, and as such are too complex to be sorted into one of the two categories. Moreover, these loci can be analysed as expressing a *pragmatic*, namely, they indicate a relationship between speech acts and propositional contents (Rocci, 2017), or *metalinguistic* (Rigotti and Greco, 2019) relation between premise and standpoint, rather than a semantic-ontological one. These includes *locus from authority* (based on expertise, testimony, common opinion), *from promising and warning* – or *from commitments* – and the locus *from conjugates/derivates*.

In the present work, I adopt the AMT as a model to analyse and reconstruct inferential configuration, as well as the taxonomy of argument schemes it proposes. As it exceeds the focus of this dissertation, I will not provide a detailed discussion of each locus – for which I refer to Rigotti and Greco (2019, §7.2), but I will give more details on some relevant loci in Ch. 8 and 9, as they prove useful to analyse argumentative instances of evidentials.

2.5. Analysing argumentation

In this section, I present some theoretical and methodological considerations that concern the analysis of argumentative texts. Firstly, in §2.5.1 I reflect on how approaches to argumentative analysis can vary along two axes – *micro-* vs *macrostructural* approaches and *reconstruction* vs *annotation* approaches. In §2.5.2 I discuss what it means to "reconstruct" arguments, clarifying some key dimensions – the identification and reconstruction of "what is argumentative" in discourses (§2.5.2.1), the reconstruction of implicit content (§2.5.2.2) and the reconstruction of argumentative structure (§2.5.2.3).

On the basis of this discussion of methodological approaches to argumentative analysis, in Ch. 6 I will detail the approach(es) adopted in this work.

2.5.1. Approaches to argumentation analysis. Two axes: macro- vs microstructures, reconstruction vs annotation

The need to reconstruct argumentative structures and the underlying inferential connections is due, as Rocci and Lucchini (2025:1) notice, to the fact that "arguments, like any other meaning, are not 'in the text' but are the result of a pragmatic inferential process of interpretation" and as such the "reasoning chains" argumentative discourses convey are not "discernible at the surface of the text". For this reason, in order to conduct an argumentative analysis, it is necessary to elucidate those chains: "[h]ow can one properly evaluate an argument unless one sees what supports what in that argument?" (Freeman, 2011:vii).

The investigation as well as the graphic representation of argumentation structures is a crucial aspect of the research in this field. The method for reconstructing and representing arguments proposed by Pragma-Dialectics discussed in the first part of this chapter is not, however, the only one in argumentation theory. Other models have been proposed, and their differences are not only technicalities, and do not lie merely at the level of graphical choices but reveal a different concept of argumentation and argumentative analysis.

Rocci and Lucchini (2025) suggest that the extant methodologies of representing argumentative structure vary along two axes:

> one corresponding to the distinction between accounts of the inferential *microstructure* of individual arguments and the mapping of the *macrostructure* of complex argumentation, the other corresponding to the tension between approaches inspired by linguistic *annotation*, seeking to enrich textual data with information about argumentation structure while maintaining a close and traceable connection with the sequence of discourse units in the original data, and approaches aimed at the *reconstruction* of arguments in a canonical form, which can involve a pretty radical reconfiguration of the original data. (Rocci and Lucchini, 2025:2, emphasis added)

According to Freeman (2011:vii), who introduces the distinction among *microstructures* and *macrostructures*, the former concern the type of "inference rule or pattern" the argument instantiates, while the latter "how the various statements (and perhaps other elements such as modalities and rebuttals) constituting an argument may fit together". In other words, analysing the microstructure means to understand the inferential connection between a premise and a conclusion, the type of *locus* the argument is built upon, while studying the macrostructure of an argumentation amounts to determine the network of relations among the statements, identifying "what supports what" (Freeman, 2011:vii), namely which statement(s) serve as premise(s) and which as conclusion(s).

Most studies in argumentation focus on the level of macrostructure; diagrammatic approaches, especially, tend to "primarily operate at the macrostructural level, capturing how statements interconnect to form argumentative wholes" (Rocci and Lucchini, 2025:3). The Pragma-Dialectical approach, as seen above, mainly focuses on this level. However, the 'analytical overview' includes the identification of the argument schemes "used to justify a standpoint in the various arguments constituting together an argumentation" (van Eemeren, 2018:97, see §2.4.1.1); their analysis, in a way, connects the two levels, as it focuses on the inferential configuration, and thus requires the analysis of the individual statements to identify the evoked scheme, but also concerns premises-conclusion connections. Moreover, the Pragma-Dialectical approach involves the analysis of argumentative indicators, which may concern both levels.

Besides the micro-macro distinction, the various approaches to argument diagramming vary "in terms of depth, that is, the extent to which structural representations diverge from

the linguistic surface of the original text" (Rocci and Lucchini, 2025:3-4). In this sense, methods of representation can be positioned along a continuum that ranges from the *annotation* pole to the *reconstruction* pole.

Procedures to annotate argumentative structures resemble those of linguistic annotation, which label texts to indicate features – in the case of argumentative annotation, moves, structure types and relational connections. This kind of analysis works with the explicit text as it is, meaning that it respects the text's *dispositio* (which in a rhetorical perspective can be an important dimension), does not involve transformative operations meant to make the discourse fit normative models, and does not recover implicit elements. Examples of these approaches are the methodologies implemented by Azar (1999), Green (2010) and Peldzus and Stede (2013), based on Rhetorical Structure Theory (RST). Another approach that can be included in this methodological paradigm is Inference Anchoring Theory (IAT) (Budzynska and Reed, 2011, Budzynska, 2013). Representations of argumentative discourse in IAT are mainly meant to represent inferential connections between arguments and conclusions, as well as attacks and other kinds of rhetorical-argumentative relations, linking semantic and pragmatic categories to the specific pieces of texts they are instantiated by. Not unlike Pragma-Dialectical analytical transformations, this approach also allows to register implicit content – to make it easier for the analyst to identify the argumentative function of sentences; but the original text is always kept in the diagrams, allowing the analyst to retrieve it at any stage of the analysis.

The limitations of annotation approaches when it comes to representing implicit content are an issue in case of unexpressed premises, but also and foremost in case of unexpressed standpoints. As Rocci and Lucchini, (2025:4) underline, "contrary to the problem of recovering the implicit premises providing a warrant for an argument, this second problem cannot be deferred to a later stage of analysis. In the absence of explicit standpoints or conclusions, approaches closer to the annotation pole risk completely missing the argumentative nature of a passage or suggesting unsatisfactory or misleading analyses with the direct linking of units whose relationship is, in fact, mediated by a tacit standpoint". In this sense, although it is true that reconstructing an implicit standpoint can be easier thanks to the contribution of logic, as van Eemeren et al. (2002:56) argue (see §2.5.1.2), it is also true that in some cases it is not possible to reconstruct it and to integrate it in the structure, which is problematic for the whole analysis.

Approaches closer to the reconstruction pole generally require a deeper and more thorough analysis, which includes an interpretative procedure that can make the process more difficult or alter the content. They crucially include transformative operations – as discussed in §2.5.1.3 – in order to recover the "argumentative 'deep structure' of the discourse or text" (van Eemeren and Grootendorst, 2004: 95). The primary advantage of these approaches is that they allow to include implicit content which, as discussed in §2.5.1.2, is pivotal when analysing arguments. On the other hand, they do not allow to trace the relation between the reconstruction and the original text, meaning that they do not explicitly allow to distinguish what is reconstructed from what is actually present in the text. Also, these methodologies do not respect the *dispositio* of the arguments and of the moves. In Chapter 6 (§6.3) I will present the methodology adopted in the present work which can be defined, in relation to the two axes just discussed, as a *macrostructural annotation* procedure. This approach presents all the constraints discussed in this paragraph, among which the impossibility to take implicit premises or standpoints into account, thus limiting the analytical precision when it comes to argumentative deep structure. On the other hand, it allows to identify the argumentative moves of the text in a simple way and to observe the correlation with indicators such as evidentials, which are the focus of this work. To mitigate the shortcomings of the annotation approach, specific passages requiring a deeper analysis have been reconstructed in Pragma-Dialectical style.

2.5.2. Reconstructing arguments

In §2.4.1, I discussed the Pragma-Dialectical model of the critical discussion as an ideal construct meant to provide an instrument to analyse argumentative discussions. The proposed model is conceived as a theoretically grounded tool to analyse, evaluate and produce argumentative texts. However, as already underlined in §2.4.1, there is a "gap" between the ideal model and real argumentative practices. More often than not, real life argumentative discourses differ from the model, and this requires a procedure to "reconstruct" the argumentation advanced by a speaker (or writer) in such a way as it is both suitable for the analysis and evaluation on the basis of the model and also do not diverge too much from the original text. The analytical process thus has to deal with the reality of the text.

As Oswald (2023:150) underlines, "[n]aturally occurring arguments are notoriously messy, in that (i) they do not naturally exhibit clear-cut structures and (ii) they contain

implicit material". This *messiness* and implicitness are inherited from human communication, of which argumentation is a specific form:

> Trivially, argumentation is a communicative activity taking place between at least two parties, meaning that an argumentative discussion, by definition, qualifies as an instance of communicative behaviour. All features of communicative activities are therefore also found in argumentative activities. Among them, the production and identification of speaker meaning is of particular interest to us: just like they do in any communicative event, in argumentative discussions speakers exchange meanings. (Oswald, 2023:145)

> Unexpressed premises and unexpressed standpoints are examples of indirect language use that is typical of normal everyday speech. Indirectness means that the speaker says what he or she means in a roundabout way rather than in a direct way. (van Eemeren et al., 2002:51)

This "disorderly and rather untidy format of argumentation as it occurs in natural settings can be a great obstacle for transparent and thorough analysis" (Oswald, 2016:20) and as such prompts for the formulation of criteria and procedures to "tidy up" the texts.

2.5.2.1. Reconstructing argumentative text. Analytical transformations and the maximally argumentative interpretation principle

The first problem when analysing an argumentative discussion, as discussed above, is the fact that actual instances of argumentative texts do not always present explicitly all components of the model or, on the other hand, can contain elements that are not envisaged – non-argumentative passages, repetitions, or reframing. To try to solve this problem, Pragma-Dialectics proposed four types of *analytical transformations* that may need to be performed on the text to reconstruct the critical discussion are proposed. These are the *deletion* of irrelevant parts; the *addition* of implicit relevant parts; the *replacement* of ambiguous formulations with clearer ones; and the *permutation*, i.e., the rearrangement of the parts of the discourse so that they reflect the order of the phases, to highlight their relevance in the argumentation.

Van Eemeren and Grootendorst (2004) justify this reconstruction methodologically by referring to the concept of *maximally argumentative interpretation*, according to which every linguistic act in an argumentation can be understood as essentially argumentative.

This concept is methodologically reflected in *maximally argumentative analysis*. Both are in line with the principle of *maximally reasonable reconstruction*, which "implies that a discourse or text can be viewed as either a critical discussion or not. The consequence of applying the strategy is that maximal credit is given to the speaker or writer by reconstructing, where this is appropriate, utterances whose communicative purpose is unclear as speech acts that make a contribution to the resolution of a difference of opinion" (van Eemeren and Grootendorst, 2004:115). In this sense, everything that can refer to the argumentation is interpreted in an argumentative sense; that is, all moves in the argumentation phase can and will be interpreted – until proven otherwise – as argumentative, not by deconstructing suspiciously but by reconstructing with trust in the arguer.

2.5.2.2. Reconstructing implicit contents

A second pivotal issue is that of *implicit* content*:* "[j]ust like standard non-argumentative exchanges, argumentative discussions carry their fair share of implicit meaning" (Oswald, 2023:150). Probably, argumentation is even more "about" implicit contents as more often than not, as discussed in §§2.2 and 2.4.1, real-life arguments (rhetorical arguments) take – almost by default – the form of enthymemes, which are incomplete reasonings resting on *endoxa* – plausible and presumably shared premises that are usually left unexpressed. Leaving implicit pieces of one's argument, although can be in some cases a deceptive and strategic choice, is often due to a unusefulness and redundancy: "[t]hings are often left out of argumentation because they seem obvious" (van Eemeren et al., 2002:50).

Similarly, in communicating, speakers often leave a lot implicit but nonetheless expect the addressee to understand what they mean. Two questions arise: *why do we leave content implicit*, and *how can we assume that our interlocutor will understand*?

To the first, a trivial answer is analogous to what van Eemeren and colleagues, and Aristotle before them, suggest: because some content is supposedly obvious, and speakers, by virtue of a *principle of linguistic economy*[39], tend not to communicate what it is

[39] This principle, the discussion of which exceeds the focus of the present dissertation, can be assimilated to the *principle of least effort*, which is a cognitive principle according to which people tend, also when communicating, toward the minimum amount of effort that is necessary to achieve the maximum result. The first

redundant and not necessary. It is also true that in some cases leaving something implicit is a strategic choice for speakers for different reasons – in some cases, also oriented toward manipulation and deception.

The answer to the second question, how do we understand implicit content and thus how can we expect our interlocutors to understand it, is essentially the question around which works in pragmatics have revolved since the work of Paul Grice. He introduced the concept of *speaker meaning* (or "non-natural meaning") which corresponds to the intention of the speaker in making an utterance and differs from *sentence meaning*: "speaker meaning is prior to sentence meaning and it consists in the intention of the speaker to produce an effect in the hearer by means of the hearer's recognition of the intention to produce that effect" (Sbisà, 2024). The mismatch between the speaker and the sentence meaning is particularly evident in cases of indirect speech – already investigated by Austin and Searle. For Grice, communication consists in a "successful exchange of meaning" (Oswald, 2016:18), which is successful when the addressee correctly decodes the speaker meaning. In this context, to understand an utterance amounts to understanding what the intention of the speaker is, and thus to attributing him/her the right *commitment* to a propositional content. So, how can we identify the speaker's intention and understand the meaning of an utterance? Grice (1975) introduces the *Cooperative Principle*, according to which speakers expectedly act in a cooperative manner[40], formulated as follows:

> Make your contribution such as required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged. (Grice, 1975:45)

On the basis of this principle, Grice also defines four *maxims*, which are intended as "rules" that speakers, expectedly, follow when interacting – exactly because they communicate cooperatively:

---

structured and complete definition was given by André Martinet (1955), although the concept was widely recognized in linguistic works since the 16th century (Vicentini, 2003).

[40] *Cooperation* does not have to be understood trivially as a "benevolent" or "friendly" behaviour; rather, speakers are said to be cooperative as they share the same communicative end, which is understand each other. This does not imply, however, nor that speakers will always be cooperative – as the principle is meant as a descriptive and not prescriptive norm – nor that people discussing share the same "extra-communicative" objective.

> Quantity: Make your contribution as informative as is required. Do not make your contribution more informative than is required.
>
> Quality: Do not say what you believe to be false. Do not say that for which you lack adequate evidence.
>
> Relation: Be relevant.
>
> Manner: Avoid obscurity of expression. Avoid ambiguity. Be brief (avoid unnecessary prolixity). Be orderly. (Grice, 1975:45-46)

Grice explains that people can understand each other even in case of indirect speech as it consists of a violation of these maxims, and as such it is detectable and decodable.

Van Eemeren et al. (2002:52), who base their interpretation of implicit argumentation on the Gricean principle, explain the role of this principle – which they partially reinterpret and term *communication principle* – in this way:

> Generally speaking, it can be assumed that everyone follows these rules most of the time. That is why it is immediately noticeable when someone does not. This is what speakers take advantage of when they want to convey something over and above the literal content of their words. By violating or appearing to violate one or more of the rules, yet at the same time not entirely abandoning the Communication Principle, they make it clear to the listener that they mean something different or something more than what they are saying. It is in this way that the Communication Principle and the communication rules give language users the opportunity to be indirect and to recognize indirectness in others.

They point out that both standpoints and premises can remain unexpressed, but that reconstructing a standpoint is easier than reconstructing a premise or other implicit contents. This is mainly due to the fact that a standpoint can be logically derived from its arguments: "When an argument lacks an explicit standpoint, it is not only immediately obvious that the standpoint is missing, but it is also easier than in the case of other indirect speech acts to figure out what is really meant. This is because there is an extra tool available, namely logic" (van Eemeren et al., 2002:56).

Logic is a cornerstone in the procedure Pragma-Dialectics envisages for reconstructing arguments. This procedure is both a pragmatic and logical endeavour: "[t]o establish precisely what someone who has advanced argumentation can be held to if the

argumentative discourse is analyzed as a critical discussion, an analysis must be carried out both at a pragmatic and at a logical level" (van Eemeren and Grootendorst, 1992: 60). Specifically, the logic analysis precedes the pragmatic one: "[f]irst, one must determine what the logical conclusion would be. If there is more than one possibility, one should choose the standpoint that in the light of the context and background information is most in accordance with all the communication rules" (van Eemeren et al., 2002:57). Logical norms are instrumental for a pragmatic analysis. In front of an implicit proposition, the analyst identifies, on the basis of a norm of logical validity, propositional contents that are possible candidates, determining this way the *logical minimum*. However, this is not always sufficient, and the analyst is left with different options; in this case, a pragmatic analysis allows to establish the *pragmatic optimum*, defined as "the premise that makes the argument valid and also prevents a violation of (…) any other rule[s] of communication" (van Eemeren and Grootendorst, 1992:64). This logical-pragmatic process for the identification of the pragmatic optimum is further broken down into a five-steps procedure:

> (i) Determine what the argumentation is in which a premise has been left unexpressed.
>
> (ii) Determine how well-defined the context is in which the argumentation occurs.
>
> (iii) Determine which added premises could validate the argument underlying the argumentation.
>
> (iv) Determine which of these added premises may, in the context at hand, be considered to be part of the commitments of the speaker.
>
> (v) Determine which of the added premises to which the speaker is committed is the most informative in the context at hand. (van Eemeren and Grootendorst 1992:66-67)

This procedure is criticised and reviewed by Oswald (2016:23), especially as it is, in his view, "vague and intuitive", and the underlying principles, especially the Gricean cooperation principle, is not exhaustively clear and lacks a cognitive ground.

Oswald proposes an alternative two-step procedure to identify implicit premises which is, in turn, based on the cognitive principles of the *Relevance Theory* developed by Dan Sperber and Deirdre Wilson (Sperber and Wilson, 1995; Carston, 2002; Wilson and

Sperber, 2012). Relevance Theory, which builds upon a cognitive account of communication, posits that "understanding is identifying the information meant to be communicated by the speaker. In turn, this is defined as identifying the contextual relevance of what is communicated" (Oswald, 2016:24). In interpreting utterances, we are guided by a consideration of *relevance* meant to minimize the cognitive *effort*: "whenever we interpret speaker meaning, we go straight for the interpretation that seems to be the most relevant within the context in which the utterance was uttered". Without going to much into detail[41], we can already understand that an approach to implicit reconstruction based on Relevance Theory will take into account, as guiding factors, the relevance of the proposition and the connected amount of cognitive effort required. Oswald (2016:26) formulates his proposal as follows:

> Procedure to identify unexpressed premises:
>
> a) focus on meaning at the level of the arguers' management and exchange of meaning
>
> b) based on considerations of cognitive effort and effect, identify speaker meaning that is contextually relevant
>
> b1) take into account different candidates for the unexpressed premise and assess which one yields the best ratio between cognitive effort and contextual effect in the context of the utterance
>
> b2) select the optimally relevant candidate as the one corresponding to speaker meaning

This procedure is meant to be, thanks to the insights from Relevance Theory, cognitively grounded – thus solving the issues left open in the Pragma-Dialectic framework.

These suggestions, in particular Oswald's, allow to justify and understand the reconstruction of implicit premises in the analysis of argumentative discourses in the last part of this thesis.

2.5.2.3. Reconstructing argumentative structures

[41] A detailed presentation of Relevance Theory and its underlying cognitive assumptions lies beyond the scope of this dissertation and would require considerable space and time.

A fundamental step in the analysis of argumentative texts is the reconstruction of the argumentative structure – discussed in §2.4.1.1. After the analytical transformations and the reconstruction of implicit allowed to recovery and establish a version of text suitable for the analysis, it is possible to "connect" the arguments among them to identify the inferential path the arguer follows.

For instance, we can reconstruct example (4), reproduced below for clarity, as in the following structure:

(4) Let's try this restaurant. Mary recommended it to me

1. We should try this restaurant

1.1 Mary recommended it to me

(1.1'. Mary is an expert in food and restaurants)

The first thing we notice is that the standpoint is reformulated – "Let's try this restaurant" is explicated in "We should try this restaurant", which makes clearer the claim.

Secondly, the implicit premise "Mary is an expert in food and restaurant", working as an endoxon warranting the inferential connection between the argument "Mary recommended it to me" and the conclusion, is reconstructed. The reconstruction of this implicit premise is made possible thanks to the process and dimensions discussed above. When someone adduces as an argument to do something the advice of a third person, we assume – also if we do not know it – that this person who is called upon is an expert in the topic under discussion, otherwise it would not be *relevant*. The inferential connection between the argument and the premise can be analysed as what was termed *argument scheme* (see §2.4.1.1); the identification of the specific argument scheme is a later step of the analysis.

Lastly, in the above reconstruction we notice the numbers preceding the standpoint and the arguments; this way of numbering arguments was introduced by Pragma-Dialectics and helps identifying the connections among the pieces, allowing to clearly and immediately see "what supports what".

In argumentation theory have also been developed several methods and modalities of graphically represent argumentative structures. Below I propose the diagramming of examples (4), (5), (6) and (7) to illustrate how Pragma-Dialectics diagrams the different types of argumentative structures.

The argumentative structure of (4) is a single argument, namely we only have one argument supporting the standpoint; the unexpressed premise (or endoxon) 1.1' could also be omitted in the graphic representation.

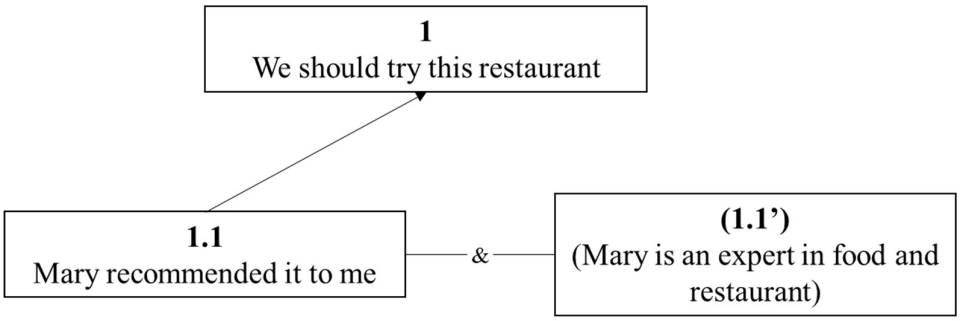


Figure 4. Argumentative structure of example (4).

The argument in example (5) is a multiple argumentation, meaning that arguments 1.1 and 1.2 are independent. They constitute two different inferential lines, each one with its own type of argument scheme. Multiple – or *compound* – arguments are in a way stronger, in the sense that if one of the arguments is attacked and dismissed, the other one remains valid.

(5) Let's try this restaurant. Mary recommended it to me, and it is really close by.

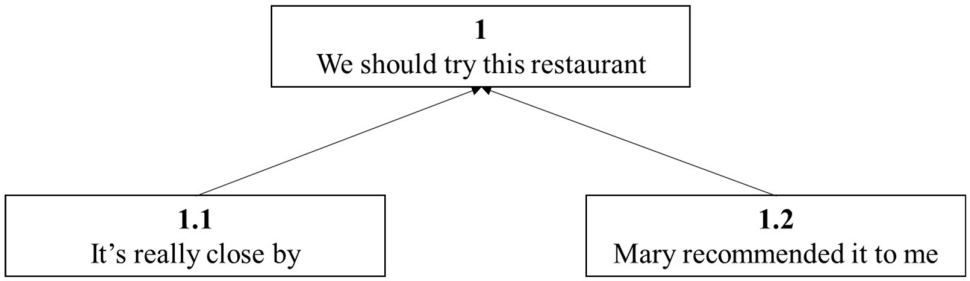


Figure 5. Argumentative structure of example (5).

Conversely, the arguments in (6) are coordinative, meaning that they constitute a single line of argumentation and cooperate in supporting the standpoint – hence the different numbering. In coordinate argumentation, one argument is not sufficient without the other and, at the same time, make the other one relevant. In this case, for instance, the arguer is not merely suggesting to go to the restaurant because it is close by – which could be *per se* an argument, but could also be attacked as irrelevant – but is saying that since she does

not have a lot of time the fact that the restaurant is close by is particularly relevant, and makes the case for concluding that choosing that restaurant is a reasonable choice.

(6) Let's try this restaurant. It is really close by, and I don't have a lot of time.

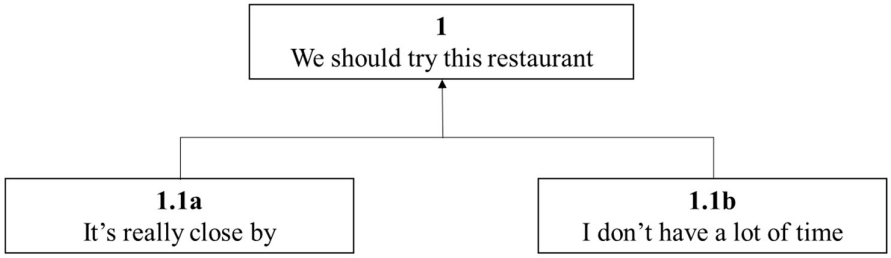


Figure 6. Argumentative structure of example (6).

Example (7) is instead an instance of subordinative argumentation, meaning that a premise supporting the standpoint is itself justified and supported by a subordinate argumentation – of which is, in a turn, a conclusion. In the diagram below we can see that argument 1.1 is supported by an argument, which is a compound argument.

(7) Let's try this restaurant. It has got great reviews – a perfect 5 on TripAdvisor and 4 stars on Google.

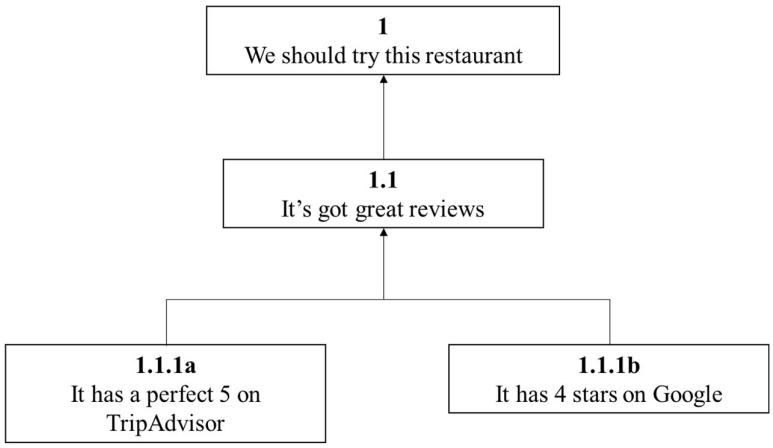


Figure 7. Argumentative structure of example (7)

3. Evidentiality

This chapter focuses on the linguistic phenomenon of *evidentiality*, providing an overview of the relevant literature in the field.

The first part addresses the definition of evidentiality as a notional category, examining both its *nature* (§3.1.1) and *scope* (§3.1.2). The latter entails an exploration of evidentiality's relationship with *epistemic modality* and other concepts within the broader domain of *epistemicity*. Following this literature review, in §3.2 I elaborate a definition of evidentiality functional for studying evidentials in financial discourse. Section §3.3 reviews various taxonomies proposed by earlier scholars, with particular attention to specific subcategories that proved especially relevant for the development of the taxonomy employed here (§3.3.3).

The second part of the chapter turns to the study of evidentials in interactional contexts (§3.4). After clarifying several key notions derived from conversation analysis (§3.4.1), §3.4.2 discusses the pragmatic and discursive functions of evidentials as markers of epistemic stance. Finally, §3.5 provides an overview of previous research examining the relationship between evidentiality and argumentation.

3.1. Defining evidentiality

The term "*evidentials*" emerged in the 20th century to describe a grammatical category that indicates the source of knowledge. Initially, the concept was used to refer to obligatory suffixes in non-Indo-European languages, which systematically encode the source of information conveyed in an utterance. Robin (2024), in a detailed historical overview of this notion, cites Jochelson's (1905) grammar of the Yukaghir language and Morris' (1939) work on Nootka, both of which employ the term *evidential* to describe the function of specific suffixes. However, the most influential contribution comes from Franz Boas' (1947) work on the Kwakiutl language, which offers one of the earliest definitions of evidentiality, describing it as a set of suffixes that "express source and certainty of knowledge" (Boas, 1947: 206). Boas had already noted in a preliminary and non-systematic manner the existence of evidential distinctions in Kwakiutl in a previous work (Boas, 1911). As he observed, "in case the speaker had not seen the sick person himself, he would have to express whether he knows by hearsay or by evidence that the person is sick, or whether he has dreamed it" (Boas, 1911:43).

Notably Roman Jakobson's article *Shifters, Verbal Categories, and the Russian Verb* originally published in 1957 represents the first "théorisation du phénomene" (*theorization of the phenomenon*) (Guentchéva, 2014), definitively establishing and promoting the use of the term *evidential* to refer to the grammatical marking of information source (see Dendale and Tasmowski, 2001; Robin, 2024).

Among the numerous studies on evidentiality that emerged in the wake of these seminal works, two stand out as milestones that have significantly shaped the field. The first is the volume *Evidentiality: The Linguistic Coding of Epistemology* (Chafe and Nichols, 1986), a collection of contributions that marked the beginning of cross-linguistic research on evidentials. This work introduces several fundamental questions and theoretical notions related to evidentiality and, as will be discussed in greater detail in §3.1.2, proposes a key distinction between different interpretations of the concept. The second is Alexandra Aikhenvald's monograph *Evidentiality* (2004), which builds on prior scholarship to offer a comprehensive typological analysis. Aikhenvald argues for a relatively strict interpretation of evidentiality as a purely grammatical category – an approach that will be examined in detail in §3.1.1.

To this day, the definition of evidentiality remains a subject of ongoing debate, reflecting the complexity and diversity of approaches to this linguistic phenomenon. Scholarly discussions on evidentiality primarily focus on two key dimensions: its fundamental *nature* – whether it should be regarded as a grammatical, semantic or pragmatic-functional category – and its *scope*, particularly in relation to other linguistic concepts related to knowledge, e.g., *epistemic modality*. These debates highlight the challenge of establishing a universally accepted definition. In the following paragraphs, I will examine the various perspectives on these aspects, laying the groundwork for the definition of evidentiality adopted in this study.

3.1.1. Is evidentiality a grammatical category? Views on the nature of evidentials

As noted in the previous paragraph, from the earliest works addressing this phenomenon, evidentiality has been primarily understood as a grammatical category. This perspective stems in part from the origins of evidentiality research, which is closely tied to studies of non-Indo-European languages and the observation of suffixes used to mark the source of information. However, as will be discussed shortly, some scholars advocate

for a broader conceptualization of evidentiality as a functional category that extends beyond grammatical markers to include lexical and textual strategies.

Like Boas and Jakobson, later scholars such as Bybee (1985), Anderson (1986), Mithun (1986), Lazard (2001), Faller (2002), and Aikhenvald (2004, 2014) strictly define evidentiality as a grammatical subsystem.

Anderson (1986:274) underscores that "[i]t is important to distinguish true evidential categories from other forms which SEEM evidential but are not". According to him, "evidentials are a special grammatical phenomenon" (Anderson, 1986: 274) presenting some defining features and should not be conflated with all linguistic devices that indicate the source of or evidence for information. He details such defining characters, which allow to identify *archetypal evidentials*:

> (a) Evidentials show the kind of justification for a factual claim which is available to the person making that claim, whether
>
> direct evidence plus observation (no inference needed)
>
> evidence plus inference
>
> inference (evidence unspecified)
>
> reasoned expectation from logic and other facts
>
> and whether the evidence is auditory, or visual, etc.
>
> (b) Evidentials are not themselves the main predication of the clause, but are rather a specification added to a factual claim ABOUT SOMETHING ELSE.
>
> (c) Evidentials have the indication of evidence as in (a) as their primary meaning, not only as a pragmatic inference.
>
> (d) Morphologically, evidentials are inflections, clitics, or other free syntactic elements (not compounds or derivational forms) (Anderson, 1986:274-275)

These features allow to distinguish "true evidentials" from markers and form which might have evidential implications or uses without being themselves evidentials. Some verbs or expressions, Anderson (1986:276-277) suggests, can be used either with a perception meaning, or with an evidential meaning – e.g., *to hear*, *to look*, *to smell* – and it is possible to distinguish these uses on the basis of the features (a)-(d).

Similarly, Mithun (1986) and Lazard (2001) emphasize the existence of both grammatical and lexical means of conveying evidential functions, yet they argue that these two categories must be distinguished, with only the former qualifying as true evidentials. As Lazard (2001) notes, while some languages have syntactic systems to mark evidentiality, others – such as English and French – lack dedicated morphological systems and must instead rely on lexical or textual strategies to express evidential meaning. In line with this distinction, de Haan (2001) asserts that grammatical and lexical means of marking evidentiality are not equivalent and should therefore be clearly separated in linguistic analysis.

In this sense, although they recognize that certain words and expressions can convey even semantically an evidential meaning, adhering to a narrow definition of evidentiality they argue that these should not be equated with morphological or syntactic evidentials. This distinction is further clarified and systematized by Aikhenvald (2003; 2004). Assuming a narrow interpretation of evidentiality, she claims that there is a distinction between expressions of knowledge source and evidentials, insofar the latter are only grammatical:

> Every language has a variety of ways for expressing how one knows what one is talking about. […] Information source, or the source of knowledge, can be expressed with multiple means. Evidentiality involves expressing it through grammar. (Aikhenvald, 2023:1)

To clearly mark such distinction, Aikhenvald (2004:105) introduces the term *evidential strategies* to describe "categories and forms which acquire secondary meanings somehow related to information source".[42] By distinguishing lexical elements that convey evidential meaning only secondarily from "true" grammatical evidentials, she effectively excludes lexical means from being classified as evidential markers.

[42] The term *secondary meaning* can be seen as an echo of Anderson's observation in (c). Their ideas are quite similar; Aikhenvald formally distinguish the two categories by introducing the notion of evidential strategies, which parallel those forms that for Anderson "seem evidential but are not". Aikhenvald, however, criticized point (d) of Anderson's definition, observing that "[w]hile points (a)‑(c) are basically sound, point (d) − which concerns the surface realization of the category – should not be among its definitional properties: for one thing, this criterion would not work for systems in which the distinction between inflectional and derivational categories is not clear-cut" (Aikhenvald 2003: 24).

This strict view is rejected by other linguists, who assume a broader interpretation of evidentiality. A distinction, however, can be traced also among these *broad* views, as suggested by Boye and Harder (2009).

There are, on the one hand, scholars that consider evidentiality as a semantic phenomenon. Among these, Chafe (1986:262, emphasis added) include within the category of evidentials "a range of epistemological considerations that are *linguistically coded*". Mayer (1990:103, emphasis added) defines evidentials as "*items* that have to do with the way information is graded in respect of *certainty and source*", while Crystal (1991:127, emphasis added) gives the following definition of evidentiality:

> A term used in *SEMANTICS* for a type of *EPISTEMIC MODALITY* where PROPOSITIONS are asserted that are open to challenge by the hearer, and require justification. Evidential constructions express a speaker's *strength of commitment* to a proposition in terms of the available evidence (rather than in terms of possibility or necessity).

It is noteworthy that the two latter definitions incorporate the dimension of *epistemic modality* – that is, the degree of certainty – within the characterization of evidentiality. This point, which is still debated, will be addressed in §3.1.2.2.

On the other hand, evidentiality has been conceptualized by some scholars as a *pragmatic* / *functional* / *conceptual* phenomenon (Ifantidou, 2001; Boye and Harder, 2009; Squartini, 2008:925; Wiemer, 2010:60; Lampert and Lampert, 2010:319, Boye, 2012, Mushin, 2013, Marín-Arrese 2017:1971; Miecznikowski, 2020, 2022). Boye and Harder, who define evidentiality as a "cognitive or functional *substance* phenomenon" (2009:14), argue that this perspective is *broader* "than both of the positions mentioned above in so far as the communication of evidential meaning by means of lexical and grammatical elements may be seen as subcases of the communication of evidentiality in general" (2009:13). Within this pragmatic-functional framework, Cornillie (2009:45) contrasts the strictly grammatical view:

> Aikhenvald (2004) makes a strong case for evidentiality as a purely grammatical category. Yet, the functional domain of evidentiality is present in most languages, and hence may be considered a language universal. Evidentiality is relevant to both languages with an obligatory grammatical

> evidential system and languages that have evidentiality as an optional linguistic category.

He defines evidentiality as "the *functional* category that refers to the mode of access to the knowledge presented in a clause" (Cornillie, 2017:163, emphasis added) while also emphasizing its role as "the functional category that refers to the perceptual and/or epistemological *basis for making a speech act*" (Cornillie, 2009:45, emphasis added). In a similar vein, Sbisà (2014:464, emphasis added) describes evidentiality as "expressing the speaker's *grounds for making an assertive speech act*". As Miecznikowski (2022:67, my translation) puts it, evidentiality

> is part of an everyday epistemology according to which (a) one of the preparatory conditions of assertive acts is that the speaker possesses a competence (Sbisà 1989) that allows him/her to justify p […] and (b) this competence results from an experience of acquiring p by L in the past or in the present, the *source* of p, which is sufficiently reliable to confer on p the normative status of *knowledge*.

Sbisà (2014) also notes that different languages may employ diverse mechanisms to mark evidential distinctions, with some relying on morphological systems and others resorting to lexical and textual strategies:

> […] not all languages use the same means to mark evidential distinctions: while some make them by means of morphology, others (among which such Western European languages as Italian and English) do so by resort to the lexicon and to textual strategies. […] So, while it is reasonable to assume that in any language evidentiality can be expressed some way, it is sometimes difficult to find it in a "pure" form, not co-occurring with such other linguistic or discursive phenomena as epistemic modalisation, mitigation or boosting of the speaker's competence, expression of the degree of commitment undertaken by the speaker. (Sbisà, 2014:464)

In this perspective, evidentiality can be understood as a pragmatic-functional category that gets manifest in discourse through both grammatical forms and what Aikhenvald terms evidential strategies, including lexical and textual means (Miecznikowski, 2020:45).

3.1.2. Delimiting the scope of evidentiality

In defining evidentiality, a pivotal – and often problematic – question concerns the *delimitation of its boundaries* as a linguistic category, which is crucial for understanding its precise function within language. This delimitation not only requires a careful examination of the structural and functional features of evidentiality itself but also necessitates a thorough investigation of how it relates to other closely associated linguistic concepts. The most complex and widely debated relationships in the literature is that between evidentiality and *epistemic modality*. Epistemic modality refers to the expression of a speaker's degree of certainty or belief regarding the truth of a proposition, and the distinction between evidentiality and epistemic modality is far from straightforward. As Musi (2016:4) puts it, the closeness between the categories of modality, perception and evidentiality "is intuitive: the conceptual activity of thinking that things might be otherwise (modality) implies having some reasons to believe so (evidentiality), while perception is our first means of knowledge". Given the complexity and significance of this point, a more detailed discussion will be provided in §3.1.2.2.

3.1.2.1. Narrow and broad views of evidentiality

Chafe and Nichols (1986) introduce a key distinction in the conceptualization of evidentiality, suggesting that this notional category can be understood either in a *narrow sense*, as solely indicating the source of information, or in a *broad sense*, integrating various aspects related to the epistemic dimension.

According to the narrow view, evidentiality is concerned exclusively with the "expression of 'evidence' per se" (Chafe, 1986: 262), meaning that it strictly denotes the source or mode of access to information. Robin (2024) includes Anderson (1986) and Aikhenvald within the scholars adopting this narrow view. Anderson (1986:273) defines evidentiality as the expression of "the kinds of evidence a person has for making factual claims". While this definition clearly aligns with a restricted view of evidentiality, Anderson also acknowledges a close relationship between evidentiality and modality, stating that "[t]hese correlations do not necessarily imply that meanings in one column can change directly into correlated meanings in another column, though that is sometimes true" (Anderson, 1986: 311). Anderson concedes that although evidentiality has the function of indicating the knowledge source, it is also closely interconnected with other linguistic categories – particularly epistemic modality – to the extent that meanings may

shift across categories, allowing certain forms to convey meanings beyond their primary evidential function.

Aikhenvald, on the other hand, defines evidentiality as the "grammaticalized marking of information source" (Aikhenvald, 2023:1), thereby excluding other epistemic dimensions from its core definition. Indeed, she states that "[e]videntiality is a category in its own right" (Aikhenvald 2004:7). However, more recently (Aikhenvald, 2023) she acknowledges that evidentials may carry additional semantic implications:

> Evidentials may be semantically complex. They may reflect attitude to knowledge – whether the speaker is sure about what they know, or have doubts about this. Attitude to knowledge – and its evaluation as probable, possible, or certain – are typically expressed through epistemic modality […]. Evidentials may have meanings related to mirativity – or expectation of knowledge, covering speaker's surprise and unprepared mind […] And they may also reflect access to information by the speaker and the addressee and information sharing between them. In this way, an evidential will overlap with the domain of egophoricity, or privileged access to information source […]. (Aikhenvald, 2023:2)

Thus, while Aikhenvald firmly distinguishes evidentiality as a grammatical category separate from epistemic modality and mirativity, she acknowledges that evidentials can convey meanings that intersect with these other epistemic dimensions. In other words, evidentials may not operate in isolation but can imply broader epistemic nuances, reinforcing the idea that the boundaries between evidentiality, epistemic modality, and other related categories are fluid rather than rigidly defined. Chafe, in contrast, adopts a *broad* conceptualization of evidentiality, stating that "everything dealt with under this broad interpretation of evidentiality involves attitudes toward knowledge" (Chafe, 1986:262). Under this perspective, evidentiality encompasses not only the source of information but also various epistemic dimensions, including different *attitudes toward knowledge*, such as the assessment of reliability and the degree of certainty associated with a given piece of information. The model in Fig. 8 visually represents Chafe's conception of the evidentiality domain. The horizontal axis corresponds to the dimension of knowledge acquisition, specifying different *modes of knowing* and their associated *sources of knowledge*. In contrast, the vertical axis represents the *reliability* of knowledge, forming a continuum that ranges from highly reliable to highly unreliable information. This two-

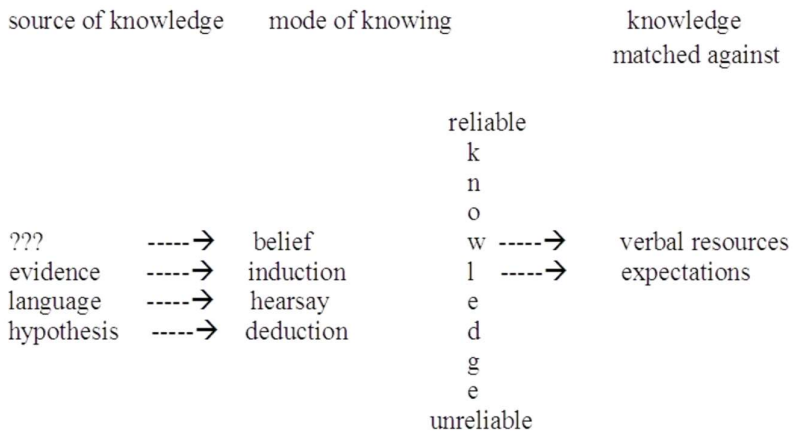


Figure 8. Chafe's model of the evidentiality domain (Chafe, 1986:263)

dimensional framework highlights the interconnectedness of knowledge source and epistemic evaluation, illustrating how evidentiality – when interpreted broadly – extends beyond mere information source marking to include a wider array of cognitive and epistemic judgments.

Other scholars, including the aforementioned Mayer (1986) and Crystal (1991) (see §3.1.1), adopt an even broader conceptualization of evidentiality, treating it as a domain that encompasses multiple interrelated notions. As noted earlier, their definitions explicitly integrate the degree of certainty within the scope of evidentiality. In a similar vein, Matlock (1989:215, emphasis added) recognizes that "[e]videntials, linguistic units *comprising part of epistemic modality*, code a speaker's source of information, and *some degree of certainty about that information*". This perspective suggests that evidential markers not only indicate the source of knowledge but also convey epistemic modal meanings.

Mithun (1986:89) further expands on this view, defining evidential markers as linguistic elements that "qualify the reliability of the information communicated in four primary ways. They specify the source of evidence on which statements are based, their degree of precision, their probability, and expectations concerning their probability". According to Mithun, evidentials serve a broader function beyond simply identifying information sources; their primary role is to indicate the *reliability of information*. The specification of the source, therefore, is only one of several interrelated aspects that contribute to this function, alongside markers of probability and expectations regarding probability. By incorporating multiple dimensions – not solely those related to epistemic

modality – Mithun conceptualizes evidentiality as a broad category in which all these elements collectively contribute to signaling the *degree of reliability* in communication. This approach establishes evidentiality as an overarching linguistic domain, encompassing both evidential and epistemic features in an integrated framework.

The above discussion shows that the primary linguistic category with which evidentiality interacts is epistemic modality. The next paragraph examines and discusses the various perspectives on the relationship between these two concepts.

3.1.2.2. Evidentiality and epistemic modality

Before examining the complex relation between evidentiality and epistemic modality, as well as the diverse theoretical perspectives found in the literature, let us first clarify the concept of epistemic modality as a subdomain of modality.

Modality, before being linguistic category, is fundamentally a philosophical and logical concept. Rocci (2017:3) defines modality as "the semantic category associated with the basic human cognitive ability of thinking that *things might be otherwise*, that is thinking of *alternatives*: situations other than what is the case". This conceptualization highlights the fundamental role of modality in human cognition, allowing speakers to express hypothetical, possible, or necessary states of affairs. From a linguistic perspective, Palmer characterizes modality as follows:

> […] a category that is closely associated with tense and aspect in that all three categories are categories of the clause and are generally, but not always, marked within the verbal complex. In notional terms all the three are, in some way, concerned with the event or situation that is reported by the utterance […]. […] Modality is concerned with the status of the proposition that describes the event. (Palmer, 2001:1)

The German linguist Angelika Kratzer (1977; 1981; 1991) proposes the *Theory of Relative Modality*, in which modals are conceptualized as relational predicates with the form M (B, p) that take at least two arguments: the propositional content under their scope – the *prejacent* proposition (p) – and a set of contextually given propositions, e.g. facts,

norms, goals, evidence) that a modal expression quantifies over, determining its "flavour" and truth conditions, called the *conversational background* (B).[43]

Within the broader category of modality, *epistemic modality* refers specifically to propositions that are true only *in some possible worlds* (Musi, 2015:82).

> Epistemic modality is defined here as (the linguistic expression of) evaluation of the chances that a certain hypothetical state of affairs under consideration (or some aspect of it) will occur, is occurring or has occurred in a possible world. (Nuyts, 2001:21).

As such, epistemic modality is opposed to *deontic modality*, which refers to propositions that are true in every world (Musi, 2015:82).

Pietrandrea (2005:7) defines epistemic modality as "the category describing a speaker's opinion towards his propositional content", while deontic modality concerns "the necessity or possibility of acts performed by morally responsible agents" (Lyons, 1977:823).

Pietrandrea (2005) emphasizes that

> The category of modality, in the general sense of the *speaker's attitude towards what he says*, is one of those categories that 'establish a relationship between the speaker and his enunciation'. (Pietrandrea, 2005:6; emphasis added)

This characterization underscores that modality, broadly speaking, expresses a relation between the speaker and their utterance. As Lyons (1977) highlights, this is true also for the subcategory of epistemic modality:

> Any utterance in which the speaker explicitly *qualifies his commitment to the truth of the proposition* expressed by the sentence he utters, whether this qualification is made explicit in the verbal component, […] or in the prosodic or paralinguistic component, […] is an epistemically modal, or modalized, utterance. (Lyons 1977:797, emphasis added)

[43] The Relative Modality Theory is not specifically relevant for the discussion of the relationship between modality and evidentiality but will be taken into account in §3.5.2.1 in discussing Rocci's (2008; 2009; 2017) argumentative analysis of (epistemic) modals.

In this sense, epistemic modality pertains to the degree of *commitment* the speaker expresses toward the truth of a proposition. It serves as a linguistic means of conveying certainty, probability, or doubt. As Palmer (2001:8) puts it, "with epistemic modality, speakers express their judgments about the factual status of the proposition". This crucial aspect of epistemic modality makes it closely related to evidentiality, as both categories engage with how speakers present knowledge within their discourses.

The relation between the two categories of evidentiality and epistemic modality is a long-standing issue; as Plungian (2010:44) puts it, "the interrelation between evidentiality and modality is, in all likelihood, one of the most complex of all theoretical difficulties related to the description of the category of evidentiality". This is due, on the one hand, to the conceptual proximity of knowledge source and certainty degree: "it is quite clear that one's source of information for a proposition influences one's judgment of its truth" (Faller, 2002:9). On the other, as observed by Dendale and Tasmowski (2001:340, emphasis added), "[f]rom the earliest discussions onwards, references to sources of information have been linked closely to attitudes about the epistemic status of information, *because the linguistic markers encoding these two semantic domains are often the sam*e".

As previously noted, scholars hold differing interpretations regarding the relationship between evidentiality and epistemic modality. Dendale and Tasmowski (2001) categorize these interpretations into three main positions, based on the nature of the relationship identified:

> Three relations between the notions of evidentiality and modality can be found in modern studies: *disjunction* (where they are conceptually distinguished from each other), *inclusion* (where one is regarded as falling within the semantic scope of the other), and *overlap* (where they partly intersect). (Dendale and Tasmowski, 2001:341-342)[44]

[44] Pietrandrea (2005) and Musi (2015) propose a classification similar to the one proposed by Dendale and Tasmowski (2001), although Musi posits a fourth category that the latter authors subsume under a broader "disjunctive" category. This class includes the works that assume a definition of evidentiality "as a distinct modal notion, yet one that is closely related to epistemic modality" (Musi, 2015:84). Kronning (2003) proposes six categories, four of which can be grouped so that they correspond to the three identified by Dendale and Tasmowski. He introduces two additional categories including the positions that do not envisage any relation between

Scholars who adopt the first position – *disjunction* – argue that evidentiality and epistemic modality are conceptually distinct (e.g., Jakobson, 1957; Anderson, 1986; de Haan, 1999[45]; Lazard, 2001; Nuyts, 2001; Palmer, 2001; Aikhenvald, 2003, 2004, 2014; Kronning, 2003; Cornillie, 2009; Wiemer, 2018).[46] As Nuyts suggests, evidentiality "does not involve any explicit evaluation in terms of the state of affairs being true or not true (Nuyts, 2001:27). However, even those who assert a clear separation between the two categories acknowledge the possibility of certain relations between them. For instance, Aikhenvald (2023:2), as discussed earlier (see §3.1.2.1), suggests that evidential forms "may reflect attitude to knowledge". Aikhenvald (2004) and Wiemer (2018) observe, for example, that specific markers of direct evidentiality can be convey a high degree of certainty. In this regard, Faller (2002:98) argues that an evidential marker may implicate an epistemic modal value, but there is no direct, one-to-one correspondence between an evidential type and a specific degree of certainty. She maintains that "a categorical distinction should be made between evidentiality and modality" although "that these two categories can overlap" and stresses that it is crucial to distinguish carefully whether a particular linguistic element *encodes* or *implicates* an evidential or modal value. Similarly, Plungian (2001) observes that

> [w]hile an evidential supplement can always be seen in an epistemic marker, the opposite does not always hold: not all evidential markers are modal

evidentiality and epistemic modality, as the "epistemic space" is seen as conciding either with the domain of epistemic modality or with that of evidentiality (Kronning, 2003:135):

1) L'espace épistémique relève in toto de la modalité (*absence de relation*)
2) L'espace épistémique relève in toto de l'évidentialité (*absence de relation*)
3) La modalité et l'évidentialité scindent l'espace épistémique en deux sous-espaces disjoints (*disjonction*)
4) Le sous-espace de l'évidentialité est inclus dans l'espace de la modalité épistémique (qui coïncide avec l'espace épistémique) (*inclusion*)
5) Le sous-espace de la modalité épistémique est inclus dans l'espace de l'évidentialité (qui coïncide avec l'espace épistémique) (*inclusion*)
6) Les espaces de la modalité épistémique et de l'évidentialité coïncident partiellement (*chevauchement*)

[45] Before defending this disjunctive view, however, de Haan had a different position(see de Haan, 1994), interpreting the relation evidentiality-epistemic modality in terms of *inclusion*. He claimed that "evidentials are part of the epistemic modality category because they reflect the speaker's knowledge of his utterance" (de Haan, 1994:6).

[46] This view aligns with a *narrow* interpretation of evidentiality.

> in that they do not all necessarily imply an epistemic judgment. More generally, one can say that the reliability of information usually depends on how it was obtained: visual information is thought to be most reliable, whereas mediated information is the least reliable. This cultural stereotype may be grammaticalized (as is the case in Balkan systems): the less direct the information, the less reliable it is likely to be. These types of systems may be called 'modalized evidential systems'. (Plungian, 2001:354)

Faller states that a linguistic expression "[o]nly when it encodes an evidential value, can it be called an evidential, and only when it encodes a modal value can it be called a modal" (Faller, 2002:98). From this perspective, evidential markers are understood to have the potential to convey an epistemic modality connotation, and this connection remains at a pragmatic level rather than being inherently included in the definition of evidentiality.

Cornillie, who argues for a clear separation of the two categories (Cornillie, 2009:59) explains the confusion made between the two on the basis of the notion of *reliability*:

> […] in order to account for the impression that qualifications are combined, I turned to the notion of reliability. It has been suggested that the shared or non-shared status of the evidence, which differs from the modes of knowing, can be more or less reliable. Thus, the appreciation of the status of the evidence may vary, but does not inherently involve an epistemic evaluation of likelihood. The conceptual confusion between evidentiality and epistemic modality may be attributed to this subdimension. (Cornillie, 2009:59)

A variation on the disjunctive view is found in Palmer (2001), who considers epistemic modality and evidentiality to be distinct categories in themselves but situates both within the broader framework of *propositional modality*. Similarly, as noted by Musi (2015:86), Hengeveld (1988) had previously suggested that both epistemic modality and evidentiality should be subsumed under the more general category of *epistemological modality*.

The second interpretation mentioned earlier conceptualizes the relationship between evidentiality and epistemic modality in terms of *inclusion*. As Dendale and Tasmowski (2001:342) observe, "[m]ore often, however, the relation between evidentiality and modality in the literature is one of 'inclusion', with one of the two concepts being regarded as falling within the scope of the other". Within this perspective, either evidentiality is considered a subcategory of epistemic modality, or, conversely, epistemic modality is

subsumed within evidentiality, which is thereby conceived in broader terms.[47] For instance, Chafe (1986), as discussed earlier, adopts a broad definition of evidentiality, which covers different *attitudes to knowledge*, including epistemic modality as well. A similar conceptualization is found in Matlock (1989:215, emphasis added), who defines evidentials as "linguistic units *comprising part of epistemic modality*, code a speaker's source of information, and some degree of certainty about that information." Conversely, Palmer (1986) extends the notion of epistemic modality so that it includes evidentials: "the term 'epistemic' should apply not simply to modal systems that basically involve the notions of possibility and necessity, but to any modal system that indicates the degree of commitment by the speaker to what he says. In particular, it should include evidentials such as 'hearsay' or 'report' (the Quotative) or the evidence of the senses" (Palmer, 1986:51).[48]

Indeed, as Dendale and Tasmowski (2001:342) further note, "[m]ost often, the 'included' notion is *evidentiality*, because marking the source of information can be imagined as an indirect means of marking an epistemic attitude towards the information, or […] because evidentiality can be of use in defining epistemic modality". Several scholars adopt this perspective, treating evidentiality as a sub-category of epistemic modality (e.g., Givón, 1982; Bybee, 1985; Hardman, 1986; Mithun, 1986).

Willett's (1988) interpretation has been the subject of conflicting assessments among scholars. While some classify him as advocating an inclusive position – viewing evidentiality as part of the epistemic modal domain[49] (e.g., de Haan, 1999; Dendale and Tasmowski, 2001) – others place him among those who argue for a strict disjunction between the two categories (e.g., Pietrandrea, 2005; Diewald and Smirnova, 2010; Robin,

[47] As Faller (2002:88) observes, "Now, when Dendale and Tasmowski (2001) talk about "inclusion" as one of the possibilities in which modality and evidentiality can be related, what they mean is something along the lines of (67): narrow evidentials are included in the set of broad modals, or narrow modals are included in the set of broad evidentials." This suggests that a relationship of inclusion between the two categories is only possible when at least one of them – the overarching one – is defined broadly. Conversely, when both evidentiality and modality are construed in narrow terms, as is the case for Faller, an inclusion relationship becomes untenable.

[48] In later works (Palmer, 2001), as discussed above, Palmer retracts this idea and proposes to see the two categories as distinct and equally subsumed within a broader conceptual category.

[49] On the basis of assertions like "There is little doubt that evidentiality as a semantic domain is primarily modal" (Willett, 1988: 52) and "evidential distinctions are part of the marking of epistemic modality" (Willett, 1988: 52); see Dendale and Tasmowski (2001:342).

2024) on the basis of his "narrow and non-modal definition of evidentiality" (Musi, 2015:85).

Lastly, van der Auwera and Plungian (1998) suggest that evidentiality and epistemic modality partially *overlap*. They include *inferential evidentials*, a subtype of evidentials, within their map of epistemic modalities, and particularly they equate inferentials to epistemic necessity, as it concerns "the certainty of a judgement relative to other judgements" (van der Auwera and Plungian, 1998:86). In this sense, the category of inference represents the overlapping area between two categories which are, otherwise, distinct. A similar interpretation can also be found in Faller (2002):

> I argue that evidentiality and epistemic modality overlap in the concept INFERENCE. On the one hand, inference is a way of "acquiring" information through reasoning. On the other hand, inference expresses the speaker's judgment that the proposition expressed is necessarily true. It is not possible to separate one from the other, and I therefore conclude that inference is a subtype of both evidentiality and epistemic modality. (Faller, 2002:10)

In her view, "[o]verlap means that it is impossible to use an Inferential without simultaneously indicating that one judges the embedded proposition to be a necessity and that one is making an inference" (Faller, 2002:261).

3.1.2.3. The notion of *epistential*

Faller (2002) challenges both the broad definition of evidentiality and the inclusion view, arguing that conflating the two concepts can end up in obscuring their fundamental distinctions. She emphasizes the conceptual difference between source of information and judgment of truth, cautioning that a broad terminology might not only blur this distinction but also mask potential syntactic and morphological differences between the two categories:

> First, as already pointed out, there is a fairly clear conceptual difference between source of information and judgment of truth. By using the broad terminology, we run the risk of obscuring this conceptual difference as well as potential linguistic differences. By the latter I mean that it is conceivable that the syntactic/morphological behavior of an element is restricted by its semantic function (or vice versa). Secondly, not all grammatical markers of evidentiality and modality are multi-functional. There are languages with

> markers which only indicate the speaker's source of information, and there are languages with markers which only indicate the speaker's judgment regarding the truth of the proposition expressed. Furthermore, there are languages with ambiguous markers, the meanings of which are clearly separable. (Faller, 2002:83)

Fundamentally, she argues that widening the definitions of evidentiality or epistemic modality to the extent that one notion encompasses the other is not only unnecessary but also potentially misleading, as it could result in analytical confusion. Although evidential and epistemic modal values may, in some cases, be difficult to disentangle, she maintains that they are distinguishable in principles:

> Thus, even though Palmer (1986), Chafe (1986), and Willett (1988) are correct in observing that there are elements for which it is hard to tease the two functions apart, it is an equally correct observation that there are elements which are clearly evidential in the narrow sense, those that are clearly modal in the narrow sense, and those which are ambiguous, but for which it is nevertheless possible to separate the two functions. (Faller, 2002:87)

Through her analysis of ambiguous markers, Faller aims at showing that it is possible to distinguish evidential and epistemic modal functions even in cases where their overlap appears substantial[50]. This, she argues, further undermines the rationale for treating one category as a subset of the other.

Additionally, she highlights a terminological issue with adopting broad definitions: doing so ultimately forces the inclusion of the "narrow" categories within a larger umbrella term, rather than resolving the conceptual ambiguity:

> So, if we adopt either one of the wide definitions of modality or evidentiality, what we will in fact end up with is a large set of elements called modals or evidentials, with clearly distinguishable subsets called narrow modals and narrow evidentials. (Faller, 2002:87)

Recognizing that certain linguistic elements simultaneously encode both evidentiality and epistemic modality, Faller introduces the term *epistential* to refer to "an element that expresses evidentiality and epistemic modality simultaneously" (Faller, 2002:87). This

[50] An exception seems to be that of the class of *inference*, which, as discussed above, Faller analyzes as bearing simultaneously an evidential and an epistemic modal meaning.

acknowledgment allows for an approach that accounts for cases of overlap without collapsing the distinction between the two categories.

In this study, I adopt the term *epistential* but modify its application slightly to better suit the framework of my analysis (see §§3.1.2.3 and 6.2.1).

3.1.2.4. The category of *epistemicity*

Boye (2010; 2012b) develops a *semantic map* based on the "Criterion of semantic-map continuity"[51] (Boye, 2010:4), to delineate the boundaries of the semantic categories of evidentiality and epistemic modality and to clarify their interrelation. In his view, evidentiality and epistemic modality constitute two *semantic regions* each characterized by *semantic continuity*. Because of this continuity, Boye argues that these categories are independent of one another, thereby excluding any relationship of *inclusion* or *overlap*. Boye explicitly rejects the claim made by van der Auwera and Plungian (1998) that evidentiality and epistemic modality overlap. He contends that their proposed overlap is incompatible with the semantic map of epistemic expressions, which provides clear empirical distinctions between the two categories:

> The reason for rejecting van der Auwera and Plungian's claim is that their idea of an overlap between Evidentiality and Epistemic Modality is incompatible with the semantic map of epistemic expressions. […] in the semantic map of epistemic expressions the two regions are clearly distinct, and the distinction made between them is based on plenty of linguistic evidence. Expressions are found that indicate degree of certainty but not source of information, and expressions are found that indicate source of information but not degree of certainty. (Boye, 2010:11)

Boye maintains that evidentiality and epistemic modality are separate categories, but both situated within a broader, overarching category of *epistemic expressions*, defined as follows:

[51] "Criterion of semantic-map continuity for status as and membership of a cross-linguistic category. The meanings comprised by a cross-linguistic category together make up a continuous region of a semantic map." (Boye, 2010:4)

> Epistemic expressions are taken to comprise linguistic items and constructions (grammatical as well as lexical) that express either source of information or degree of (un)certainty, or both. (Boye, 2010:6).

Within this framework, Boye maps the semantic domain of *epistemicity* (Fig. 9), which encompasses both evidentiality and epistemic modality and illustrates the relations both within and between these categories. He clarifies that

> the map covers only epistemic notions. In addition to their epistemic meanings, epistemic expressions may have various kinds of related non-epistemic meanings. As discussed earlier, for instance, there is [...] a link between indirect justification and mirativity.

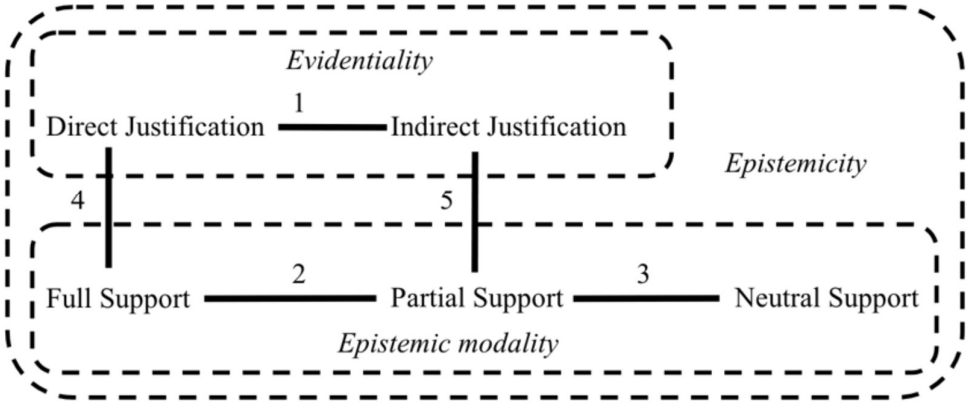


Figure 9. The categories of epistemicity, evidentiality and epistemic modality projected onto the semantic map of epistemic expressions (Boye, 2012b:159).

Thus, Boye explicitly excludes *mirativity* – which, as will be discussed more in detail in §3.1.2.4, concerns the unexpectedness of information – from the domain of epistemicity, arguing that it has a different status than evidentiality and epistemic modality.

He further refines the epistemic domain by identifying *direct justification* and *indirect justification* as the core components of evidentiality. As he notes: "[t]he distinction is taken to correspond to Willett's (1988:57) distinction between 'direct evidence' and 'indirect evidence', and roughly to Aikhenvald's (2004:65) distinction between 'direct' or 'firsthand' evidence on the one hand and 'non-firsthand' evidence on the other." This distinction mirrors the fundamental binary one made in evidential taxonomies, which

separate *direct* and *indirect* evidentiality.[52] Boye (2012b:131) also acknowledges that "these categories are quite general, and several subdivisions can be made". Within the domain of epistemic modality, on the other hand, Boye distinguishes between *full support*, *partial support*, and *neutral support.*

The relationships among different epistemic meanings are represented in the semantic map through *connecting lines*, which indicate that specific linguistic expressions may have multiple functions (*polyfunctionality*) or may shift diachronically between epistemic and evidential meanings. Boye (2010; 2012b) maintains that evidentiality and epistemic modality are mutually exclusive categories. However, following Aikhenvald, he acknowledges that evidential markers can pragmatically acquire epistemic modal connotations:

> "[e]vidential markers may indicate a speaker's attitude towards the validity of certain information but do not have to" (Aikhenvald, 2003:13). In other words, evidential expressions may acquire epistemic modal extensions, but do not have to. (Boye, 2012b:136).

The semantic map accounts for such pragmatic extensions by incorporating connecting lines that represent these contextual shifts in meaning:

> Every connecting line found in the semantic map of epistemic expressions has been established on the ground that a number of language-specific expressions are polyfunctional with respect to, or move diachronically between, the meanings connected by the line. (Boye, 2010:8).

This means that while evidential and epistemic modal meanings remain distinct, certain markers may acquire one value or the other depending on context, thereby shifting between the different meanings and the different categories. Boye's model thus provides an approach to understanding the relationship between evidentiality and epistemic modality, representing them as two sub-distinctions within the semantic space of epistemicity.

[52] I will discuss this point more in detail in §3.3. For the moment, we can anticipate that, as Boye himself states, this binary distinction is in Willett's taxonomy, as well as in Aikhenvald's, but was already envisioned in Jacobson (1957) and in Barnes' taxonomy (1984), which is the first complete description of an evidential system (Robin, 2024:25), that distinguishes two main categories on the basis of the *directness* (+/-).

3.1.2.5. Evidentiality and the others: mirativity, egophoricity, engagement

Beyond its interaction with epistemic modality, evidentiality also intersects with other linguistic categories and phenomena, including *mirativity*, *egophoricity* and *engagement* – as well as with the category of *intersubjectivity*.

Mirativity is defined as a grammatical category that marks whether a proposition constitutes new or unexpected information for the speaker. As Bergqvist and Kittilä (2020:2) state, "[m]iratives signal new/non-assimilated knowledge and [have] often been said to convey the surprise of the speaker". The relationship between mirativity and evidentiality remains a point of debate. While some scholars, such as Guentchéva (1996), classify mirativity as a subcategory of evidentiality, others maintain that the two should be treated as distinct categories (e.g., De Lancey, 1997; 2001; 2012).

Egophoricity, by contrast, pertains to the epistemic authority of a speech act participant based on their involvement in the event being described. Bergqvist and Kittilä (2020:2) define egophoricity as a category that "signals the epistemic authority of a speaker or addressee (speech-act participant) subject to his/her involvement in a talked-about event". The relationship between egophoricity and evidentiality has also been the subject of scholarly discussion. Widmer (2020) notes that "[w]hile some scholars have analyzed egophoricity as a subcategory of the well-established grammatical category of evidentiality, […] others have maintained that egophoricity has a different functional motivation and should be considered as a grammatical category in its own right" (Widmer, 2020: 264). For instance, Plungian (2010) and San Roque and Loughnane (2012) describe egophoricity as "the strongest kind of access that speakers employ to justify a statement" (Bergqvist and Kittilä, 2020:4).[53] Widmer, however, challenges this perspective, arguing that evidentiality and egophoricity "are best conceived of as two independent grammatical categories but still interact with each other in various ways because they share a conceptually related functional motivation" (Widmer, 2020: 264).

Finally, the two closely related notions of *intersubjectivity* and *engagement* concern the "sharedness" of the information. *Intersubjectivity*, a notion introduced by John Lyons

[53] Plungian (2001; 2010), as will be discussed in §3.3.2, introduces *endophoric* and *participatory* markers to define "two types of markers of direct access" which describe when the process of knowledge acquisition is based "on the direct participation in it" (Plungian, 2010:34).

(1977) and subsequently reconceptualized by Jan Nuyts (2001; 2012; 2017), concerns "whether the evidence (and the conclusion drawn from it) is only available to the speaker or is rather more widely known (including to the hearer)" (Nuyts, 2001:399). This notion will be discussed more in detail in §3.4.1.4 in relation to knowledge management in interaction. *Engagement* refers to the contrast between a speaker's assertion about the addressee's knowledge of or attention to an event and whether this knowledge is perceived as shared or non-shared between them. Bergqvist and Kittilä (2020: 12) define engagement as a category that "consists of a contrast between the speaker's assertion about the addressee's knowledge of/attention to an event (*e*) as either *shared* or *non-shared* with the speaker".

3.1.2.6. The notion of (inter)subjectivity

The concept of subjectivity was first introduced by Lyons (1977), who situated it within the domain of epistemic (and deontic) modality, contrasting subjective and objective modality. As previously noted (see §3.1.2.2), for Lyons (Lyons 1977:797) "any utterance in which the speaker explicitly qualifies his commitment to the truth of the proposition expressed by the sentence he utters […] is an epistemically modal, or modalized, utterance." In his framework, *objective* epistemic modality denotes the expression of probability based on externally verifiable evidence or logical inference, suggesting a measurable likelihood of a proposition's truth. Conversely, *subjective* epistemic modality reflects the speaker's internal judgment or belief, grounded in intuition or personal reasoning rather than empirical data. To illustrate, Lyons discusses sentence in example (14)

(14) Alfred may be unmarried

This utterance, he notes, can be interpreted in two ways. On one hand, "the speaker may be understood as subjectively qualifying his commitment to the possibility of Alfred's being unmarried in terms of his own uncertainty" (Lyons 1977:797). Thus, it expresses the speaker's *personal uncertainty* about Alfred's marital status – demonstrating subjective epistemic modality. On the other hand, it might convey that the speaker believes there is a *statistically quantifiable likelihood* that Alfred is unmarried. For instance, if the speaker knows Alfred is part of a group of ninety individuals, thirty of whom are unmarried, the inference that Alfred has a one-in-three chance of being unmarried

constitutes an objective epistemic assessment based on statistical reasoning (*objective epistemic modality*).

Jan Nuyts (2001; 2012; 2017) reconsiders Lyons' conceptualization and argues "for an interpretation of the dimension of subjectivity as an evidential qualification which can (but need not) be expressed jointly with the epistemic one" (2001:284). He defines subjectivity as follows:

> The dimension of subjectivity […] can be defined in terms of a difference in the status of the evidence and the epistemic evaluation based on that evidence from the perspective of the (knowledge of the) interaction partners in that situation. (Nuyts, 2001:393)

Subjectivity thus does not concern the *quality of the evidence* but is rather defined "in terms of the question whether the evidence (and the conclusion drawn from it) is only available to the speaker or is rather more widely known (including to the hearer)" (Nuyts, 2001:399).

From this perspective, the key contrast is not between *subjective* and *objective*, but between *subjective* and *intersubjective* – two ends of a continuum that concerns the accessibility of the evidence. As Nuyts explains:

> […] one pole involves the speaker's indication that (s)he alone knows (or has access to) the evidence and draws conclusions from it; the other pole involves his/her indication that the evidence is known to (or accessible by) a larger group of people who share the same conclusion based on it. In the former case the speaker assumes strictly personal responsibility for the epistemic qualification, in the latter case (s)he assumes a shared responsibility among those who have access to the evidence and accept the conclusions from it (including him/herself). (Nuyts, 2001:393)

This reframing of subjectivity as a matter of evidential availability and shared epistemic responsibility offers a more interactionally grounded account of how speakers position themselves – and others – in relation to knowledge and its sources.

3.2. A definition of evidentiality for the study of evidentials in financial dialogue

In this section, I outline the conceptualization of evidentiality adopted in this study. I will treat evidentiality as a *functional* category (§3.2.1) that is distinct from epistemic

modality (§3.2.2). Furthermore, the analysis of evidentials in ECCs developed in this work draws on the notion of *evidential frames* introduced by Miecznikowski (2020). Section §3.2.3 presents this notion and highlights the main points of convergence with, and divergence from, the approach proposed here.

3.2.1. Adopting a functional view of evidentiality

I adopt a *functional* definition of evidentiality – rather than a strictly grammatical one – viewing it as a category that indicates the *mode of knowing* of a proposition, that is, "the speaker's grounds for making a speech act" (Faller, 2012:287). I adopt the term *mode of knowing* following Chafe (1986), who distinguishes it from *source of knowledge*. As I will elaborate in Chapter 6 (§6.2), I also make a clear distinction between the *mode* conveyed by an evidential and the *source* of knowledge, which is a separate element that may or may not be explicitly textually specified.

By adopting a functional perspective, I do not confine evidentiality to a grammatical category but instead consider lexical and textual evidential strategies. This is particularly relevant given that the present study examines data in English, language that does not have a dedicated grammatical system for evidential marking.

3.2.2. On the relation between evidentiality and epistemic modality

Regarding the relation between evidentiality and epistemic modality, as well as other related categories, I follow scholars who argue for a *disjunctive* approach, maintaining that these are fundamentally distinct notions. Evidentiality pertains to the *mode of knowing* – that is, how information is acquired – while epistemic modality concerns the speaker's *degree of certainty* and *epistemic commitment* to a proposition. As such, they represent separate semantic categories. However, despite this distinction, they are often interrelated and, in some cases, difficult to disentangle. I argue that while evidentiality and epistemic modality remain distinct, evidential markers can nonetheless pragmatically convey an epistemic judgment in terms of certainty, acquiring epistemic modal meaning in context. This is particularly evident in the case of *direct evidentials*, which encode firsthand perceptual sources and often imply a high degree of certainty (see §3.3). This connection arises due to what Plungian (2001:354) describes as a *cultural stereotype*:

> More generally, one can say that the reliability of information usually depends on how it was obtained: visual information is thought to be most

> reliable, whereas mediated information is the least reliable. This cultural stereotype may be grammaticalized [...]: the less direct the information, the less reliable it is likely to be.

However, this implication remains a *pragmatic effect* rather than a semantic meaning of evidentiality – an idea that aligns with Boye's (2012) conceptualization evidentiality and epistemic modality as separate but interconnected semantic categories.

On the other hand, epistemic modals always presuppose some evidential basis, yet this does not necessarily mean they indicate or even implicate evidential meaning. While some epistemic modal markers are also associated with evidential meanings – particularly in the case of *inferentials* – this is far from a universal pattern. More often than not, epistemic modals do not clearly specify the *mode of knowing* or the *source* of knowledge.

3.2.3. The notion of evidential frame

As will be discussed more in detail in Ch. 6, the annotation and analysis of evidentials carried out in this work leverages on the concept of *evidential frame*[54], proposed by Miecznikowski (2020).

Evidential frames are defined as connections "between to-be-asserted propositions and their information sources", and information source is defined as "an experience by the cognizer and speaker (S) that takes place before the speech event, or simultaneously, and results in the acquisition of a proposition p by S" (Miecznikowski, 2020:45).

I conceive evidential frames as semantic structures in which an evidential marker works as predicate taking three arguments: the *cognizer* (the knowing subject), the *scope* (the propositional content under the operator's scope, representing the fact or aspect of reality that is known), and the *source*. I thereby maintain the basic choice of using frame semantics to model the process evidentials refer to but depart from Miecznikowski's conceptualization in two respects. Firstly, in her account evidential the information source coincides with the entire process of knowledge acquisition by the speaker, while I refer the term *source* to the specific information based on which the cognizer accesses the content in the evidential's scope. This frame element corresponds to what Cornillie (2007:112) has termed "perceptual or epistemological basis" and singles out a prominent element of the process of knowledge acquisition.

[54] As I will discuss in §6.2.1, in the present study I actually expand from "evidential frames" to "epistential frames", as I include also expressions of epistemic modality.

A second significant departure from Miecznikowski's framework regards constraints on the cognizer's identity. In her work, a defining criterion of evidential frames is that the cognizer must coincide with the speaker or – in the case of intersubjective evidentiality – include the speaker (cf. also Battaglia and Miecznikowski, 2025b, §3.2.1) This conceptualization is in line with the literature on evidentiality, in which evidentiality is conceived as the mode of knowing of the speaker, and therefore the cognizing subject coincides with the speaker. In contrast, I include all expressions that denote an epistemic state attributed to a subject and specify a source of knowledge, whether the subject is the speaker, a group including the speaker, the addressee, or a third party. I broaden the notion of the cognizer, as the analytical focus of the present work goes beyond characterizing the speaker's own knowledge.

To summarize, in this study, evidentiality is defined as a functional category whose *primary function* is to indicate the *mode of knowing* – that is, *how someone knows something*. As a *secondary function*, intended in terms of pragmatic effects, evidentials may convey additional meanings, including degrees of certainty (epistemic modality), as well as *epistemic access*, *epistemic authority* and *rights*, and (*inter)subjectivity*. These related categories will be explored in greater detail in section §3.4.

3.3. Evidential taxonomies

Since the emergence of scholarly interest in evidentiality, researchers have proposed numerous taxonomies to categorize evidential markers across languages.

Despite these extensive efforts, as Robin (2024:44) aptly observes, no single classification system has achieved universal acceptance or applicability. A primary reason for this lies in the considerable cross-linguistic variation in how evidentiality is expressed. As highlighted by Aikhenvald (2004:23), languages vary not only in the complexity of their evidential systems, but also in the specific meanings they encode. While some languages utilize as few as two grammatical markers to indicate information source, others distinguish more than four. These structural disparities – despite certain recurring typological patterns – complicate attempts to formulate a universally valid taxonomy based on grammatically encoded meanings. Adding to this challenge is the fact that evidentiality itself constitutes a complex and not fully coherent category. As Nuyts (2017:58) points out, "the notion of evidentiality is not a coherent semantic category, not even if we confine it to the classical subcategories, let alone if we include the less classical

ones". Similarly, Bergqvist and Grzech (2023:10) observe that "evidentials are semantically complex beyond what existing taxonomies suggest." Encompassing a broad and often fluid range of meanings and functions, evidentiality resists clear-cut definitions (as detailed in the previous section) or categorical boundaries. This conceptual ambiguity continues to pose significant obstacles for scholars seeking to develop comprehensive and universally applicable models of evidential classification.

Before turning to a detailed presentation of the various taxonomies proposed in the literature in §3.3.2, it is important to first examine the key notions and theoretical approaches that underpin these classification systems (§3.3.1).

3.3.1. The governing notions

As Robin (2024) observes, each evidential taxonomy is structured around a main concept, which she refers to as the *governing notion*, using a term introduced by Squartini (2001). According to Robin, there are three "organizational approaches"; the first revolves around the notion of the *mode of access* or *knowing*, the second around the *source of knowledge*, and the third integrates both concepts.

Taxonomies based on the mode of knowing focus on *how* the cognizer (which coincides with the speaker) accessed the information. This type of classification prevails in the literature (Boas, 1911; Givón, 1982; Barnes, 1984; Anderson, 1986; Chafe, 1986; Willett, 1988; Dendale, 1991; Plungian, 2001; Aikhenvald, 2004, 2015; Wiemer, 2010; Cornillie et al., 2015; Miecznikowski et al., 2021, 2023). Typically, this approach establishes a primary distinction between *direct* and *indirect evidentiality*, which are further subdivided into three categories: (1) *perception*, referring to sensory evidence directly experienced by the speaker; (2) *reported* (also known as *reportative* or *hearsay*), encompassing information conveyed by others through various forms of reported speech; and (3) *inferential*, denoting knowledge obtained through reasoning. All major taxonomies I will discuss in the next section (§3.3.2) fall under this first category.

A taxonomy based on the *source of knowledge* is developed by William Frawley (1992).[55] This classification, which is less represented in the literature, emphasizes the person at the origin of knowledge, focusing on the *who* rather than the *how* of knowledge

55 It is important to note that Frawley's notion of source of knowledge differs from Chafe's (1986), in that the latter employs the term to denote the type of 'means' vehiculating the knowledge, rather than the person.

acquisition. Frawley conceptualizes the source of knowledge as an *epistemic deictic center*:

> The convergence of the expressed world and the reference world is assessed and substantiated from the viewpoint of the *epistemic center*, the source of knowledge or the principal deictic point. (Frawley, 1992:412)

This epistemic center can be either internal, represented by the "Self" (the speaker), or external, represented by the "Other" (someone other than the speaker). Frawley incorporates also the parameter of "directionality to the source" (Frawley, 1992:412), dividing evidentials into four directional categories: *From the Self*, *To the Self*, *From the Other*, and *To the Other* (see Fig. 10). In Frawley's view, this bidimensional framework enables to determine the deictic origin of knowledge.

Each type of source corresponds to a distinct relationship between the epistemic center and the information and is associated with specific evidential types. For example, the category *From the self* includes internally generated knowledge, such as inference, reflecting a kind of self-contained reasoning or understanding, whereas *To the Self* captures knowledge acquired through direct *sensory perception*, such as seeing, hearing, or feeling. *From the other* pertains to knowledge conveyed by others, such as reported speech or hearsay, while *To the other* involves knowledge directed outward.[56]

[56] The status of Frawley's category of "To the other" evidentials remains somewhat unclear in the literature. Frawley (1992) provides little explicit discussion or exemplification of this category, and concrete linguistic instances are difficult to identify.

Source of Knowledge		*Strength of Knowledge*
Self		
	From	Scaled Categories of Inference necessary > possible
	To	Scaled Categories of Sensation visual > auditory > other senses > feel
Other		
	From	Scaled Categories of External Info. quote > report > hearsay > other
	To	Scaled Categories of Participants other > all else

Figure 10. "Deictic Categorization and Scaling of Epistemic Modality" (Frawley, 1992:413)

Moreover, as illustrated in Fig. 10, each of these sources is associated to a *Strength of Knowledge*, which reflects the "relative distance between the source of knowledge (the reference world) and the object of knowledge (the converging expressed world)" (Frawley 1992:413). The closer the source is to the self, the stronger or more reliable the knowledge is presumed to be. This results in a continuum from 'direct' to 'indirect' evidentiality, where internal, sensory, or inferential knowledge is positioned as more direct and thus stronger, whereas externally sourced or reported knowledge is more indirect and therefore potentially weaker.

Finally, several scholars have argued for the usefulness of combining the two aforementioned models, suggesting that an integrative approach yields a more comprehensive understanding of evidentiality (Botne, 1997; Squartini, 2001, 2008; Wachtmeister Bermúdez, 2005). In particular, Wachtmeister Bermúdez (2005) assumes both notions of *mode of access* and of *source of knowledge* and incorporates a third notion, namely that of *access to information*. This third notion focuses on the availability of information sources and whether the knowledge is shared or privately held. These three concepts are integrated and jointly shape the internal organization of his classification of evidentials. Each of this notion constitute a continuum between two poles. The mode of access is seen as a scale between the poles *sensorial* and *cognitive*, whereas the *source of access* varies along a line between *external* and *personal*. Lastly, access can be *universal* when the information is considered to be publicly available or shared – the most

representative example being the category of *folklore* – or *private*, when the knowledge is accessible only to the speaker, cases typically classified as endophoric evidence.

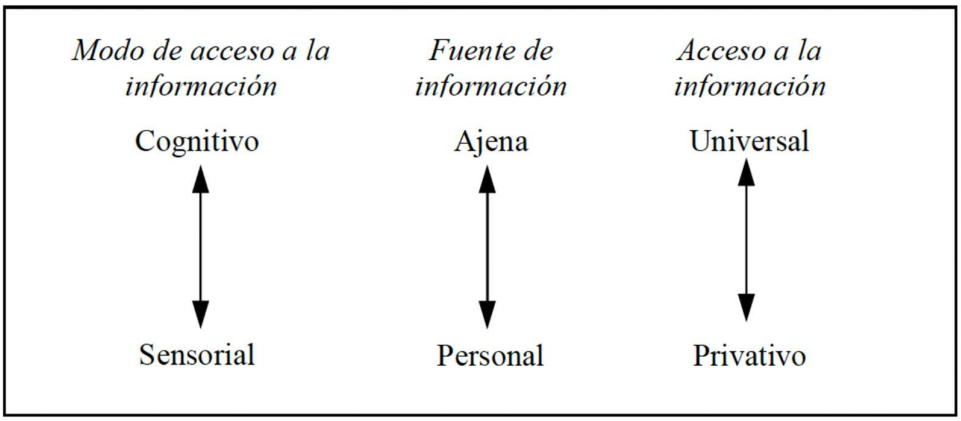


Figure 11. The "evidential domain" (Wachtmeister Bermúdez, 2005:17)

According to Wachtmeister Bermúdez, this revised model of evidentiality addresses limitations in traditional classifications by including folklore or popular knowledge as an evidential source. In his view, previous models revealed too restricted and rigid. His model, instead, aim at offering greater flexibility by introducing three scalar parameters, and adding the access to information it allows for a more fine-grained understanding of evidential categories, in particular encompassing shared or collective knowledge (Wachtmeister Bermúdez, 2005:18).

3.3.2. Main evidential taxonomies

The earliest attempts to classify evidentiality can be traced back to Sapir (1921), who proposed a tripartite distinction between knowledge acquired through *direct experience*, *hearsay*, and *inference*. Similarly, Jacobson (1957), introduced an early distinction between *direct* and *indirect* evidentiality.

Givón (1982) also contributed to the development of evidential classifications by examining evidential values in three languages – Kinyarwanda, Ute, and Sherpa. He appears to identify an opposition between direct evidence and indirect quotation, positioning evidential categories along a sensory scale: VISION > HEARING > OTHER SENSES > FEELING (Givón, 1982:44). Furthermore, Givón suggests that, in the systems he analyses, there is a correlation between evidentiality and degree of certainty. He argues that evidential markers are necessary only in contexts involving an intermediate level of

certainty: "evidentiality contrasts appear primarily in the middle – asserted/inductive/realis – portion of the epistemic scale, where truth is neither presupposed and thus beyond doubt, nor too hazy and dubitable to bother with" (Givón, 1982:26).[57]

Barnes (1984) builds a taxonomy of Tuyuca's evidential suffixes – considered the first complete description of an evidential system (Robin, 2024:25) – "in terms of binary features" (Barnes, 1984:267). A first distinction is made on the basis of the feature +/- *firsthand*; the subsequent divisions between +/- *direct*, +/- *visual* and +/- *past* allows to identification of five subcategories: (1) *Visual*, (2) *Nonvisual*, (3) *Apparent*, (4) *Second hand* and (5) *Assumed* (see Fig. 12).

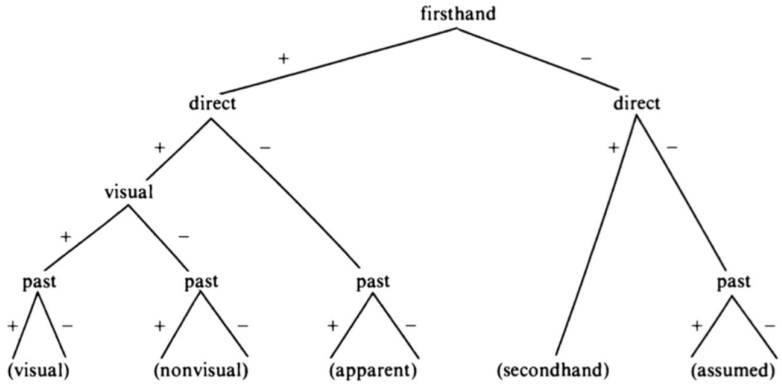


Figure 12. Barnes' taxonomy of Tuyuca's evidentials (Barnes, 1984:267)

As Musi (2015:64) points out, none of these early taxonomies is hierarchically structured, nor do they attempt to propose a schema of evidential values that is generalizable across languages. She notes that the first proposals of systematized and hierarchically structured classifications are those by Anderson, Willett and Frawley – the latter was discussed above (§3.3.1).

[57] However, Givón (recognizes that evidentials can be found also when the certainty degree is higher: "highest certainty – involves some categories of the *highest evidentiality*" (1982:42) which include categories as *deictically obvious*; *presupposed*; *given by revelation*; *apriori-synthetic*; *analytic*. In the cases of *lowest certainty* – when the speaker is in doubt – evidential characterization is *impossible*.

Before discussing Anderson's and Willett's taxonomies, I discuss here briefly the types of *modes of knowing* that Chafe (1986) identifies in his model of the evidential domain that was presented in §3.1.2.1 (for ease of reference, Chafe's scheme previously introduced in Fig. 8 is re-presented below in Fig. 13). He distinguishes four modes of knowing, *belief*, *induction*, *hearsay* and *deduction*, each based on a corresponding *source of knowledge*, and arranged on a scale in relation to their level of reliability.

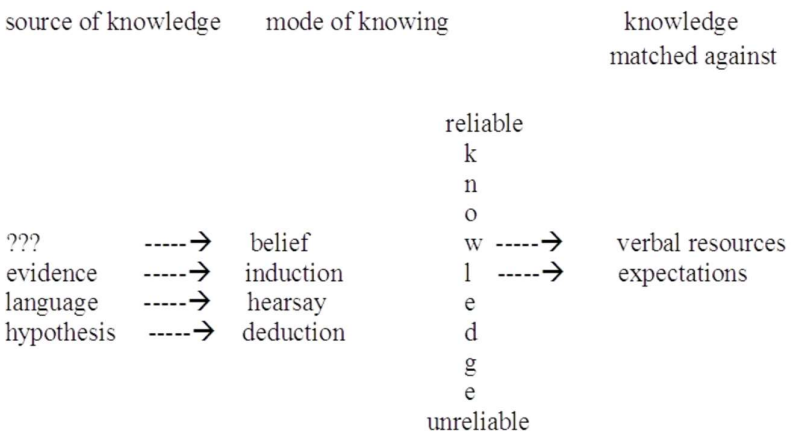


Figure 13. Chafe's model of the evidentiality domain (Chafe, 1986:263)

The first point to highlight is that Chafe does not propose a hierarchical taxonomy distinguishing between direct and indirect evidence, nor does he adopt the 'classical' tripartite division between direct, hearsay, and inference. Notably, he does not consider direct or perceptual evidence at all. Instead, he introduces a distinct and rather intriguing category: *belief*, for which no originating source is explicitly indicated. Chafe (1986:266) describes this category as follows:

> We can begin with belief, or opinion (a weaker form of it). Belief is a mode of 'knowing' in which concern for evidence is downgraded. People believe things because other people whose views they respect believe them too, or simply because, for whatever reason, they want to believe them. There may be evidence to support a belief, evidence which a believer may cite if pressed for it by a nonbeliever, but belief is always based on something other than evidence alone. Knowledge arrived at through belief is signaled in conversational English with expressions like *I think*, *I guess*, or *I suppose*.

Belief is thus framed as a type of knowledge, or, in Chafe's terms, a *mode of knowing*, which, paradoxically, is also characterized as the most reliable, despite the absence of a

clearly defined source. This category will be further discussed in §3.3.2.3 in relation to specific subtypes of inferentials proposed in the literature and in connection with the category of *subjective* evidentiality introduced in the present work. Finally, Chafe's distinction between *deduction* and *induction* is one that is taken up and further developed in later scholarship (see §3.3.2.3).

As previously noted (§3.1.2.1), Anderson conceptualizes evidentiality in a narrow sense and as strictly related with other categories. For this reason, he includes evidential values in a broader semantic map with multidirectional relation with other epistemic domains; thus, the different types of evidentials identified aren't organized hierarchically. These types, which were already mentioned in §3.1.1, are *direct evidence plus observation*, *evidence plus inference*, *inference*, *reasoned expectation from logic and other facts*. In turn, *direct evidence* is subsequently characterized on the basis of the involved senses – "whether the evidence is auditory, or visual, etc." (Anderson, 1986:274). Robin (2024:50) schematizes the evidential values found in Anderson's map as shown in Fig. 14.

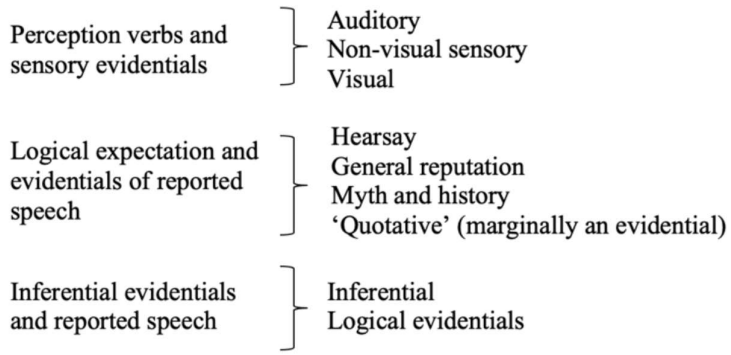


Figure 14. Schematization of Anderson's (1986) evidential categories (Robin, 2024:50)

Willett (1988) proposes a hierarchical taxonomy that he suggests being universal. The taxonomy assumes as governing notion that of *type of evidence* – which follows Chafe's (1986) *mode of knowing* – and, as above mentioned, identifies a binary distinction at a higher level (direct vs indirect evidentials) and a tripartite distinction at a lower level:

> […] languages tend to differentiate **three** general kinds of evidence within the direct/indirect distinction. In particular, two main types of **indirect** evidence are clearly seen: **evidence via verbal report** and **evidence upon which an inference is based.** I label these two types of indirect evidence

Reported and **Inferring** respectively; both contrast with direct evidence, which I label **Attested**. (Willett, 1988:57, original emphasis)

He schematizes this classification as shown in the diagram in Fig. 15.

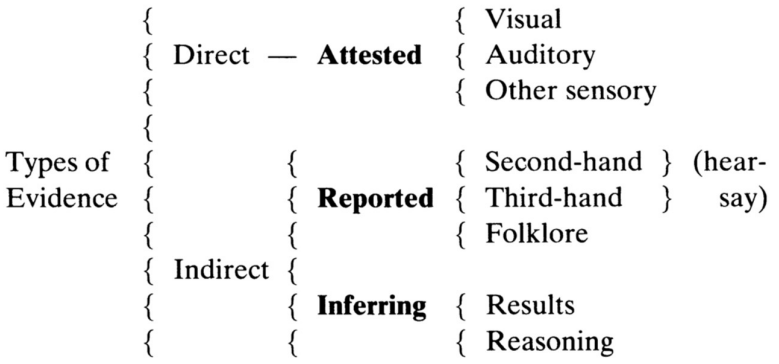


Figure 15. Willett's "Types of evidence" (Willett, 1988:57)

Similarly, Plungian (2001) proposes a "cross-linguistic classification of evidential values", with the goal of developing "a universal classification built over this space of variation which is flexible enough to integrate new data without a drastic reorganization of existent framework" (Plungian, 2001:349). The taxonomy he puts forward closely resembles those proposed by Barnes (1984) and Willett (1988). Like these earlier models, Plungian's classification distinguishes between direct and indirect evidentiality, with the former subdivided into *visual* and *non-visual* categories.

However, this taxonomy introduces several important differences from previous models. One notable distinction lies in the treatment of indirect evidence: Plungian includes only *inference* and *reasoning* as valid subcategories, explicitly excluding *reported* evidence, which he considers "highly problematic." In his view, hearsay can be interpreted as a particular type of inference:

> Strange as it may seem, singling out the quotative value is in fact highly problematic. Indeed, *it may equally well be treated as a kind of inferential value*, because other people's evidence is nothing more than a 'situation pointing towards P' – alongside with visible traces or other indirect manifestations of P. (Plungian, 2001:352, emphasis added)

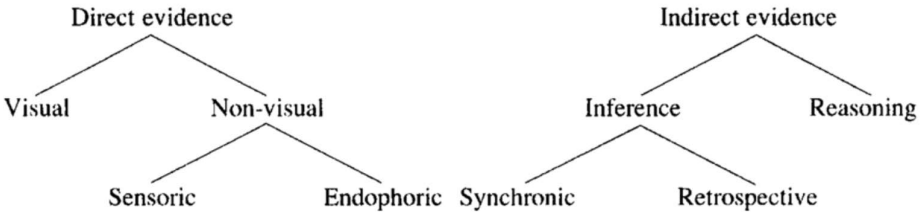


Figure 16. The classification of evidential values (Plungian, 2001:353)

Moreover, as Musi (2015) notes, Plungian also incorporates aspects of Frawley's model, and the internal structure of his taxonomy is partially governed by the notion of *source of knowledge*. The subcategories are differentiated based on the speaker's relation to the source of information. For example, the distinction between *sensoric* and *endophoric* types indicates whether the speaker perceives the information externally (through the senses) or is internally involved in the situation. Similarly, *synchronic inference* refers to cases where the speaker has direct, personal access to immediate evidence at the time of inference, while *retrospective inference* involves reasoning based on 'a posteriori' evidence, to which the speaker did not have personal access. This latter case includes *reported* evidence, which Plungian treats as a form of retrospective inference. Quotative expressions, in this view, serve as "a posteriori" evidence of a given proposition and thus "signal that the speaker is separated from the situation by the barrier of another observer" (Plungian, 2001:353). This definition clearly demonstrates how the *source* dimension, along with the parameter of *personal vs non-personal* access, is integrated into his classification system.

Plungian later elaborates a second taxonomy (Plungian, 2010) (in Fig. 17) which is based, instead, on Aikhenvald's classification (discussed below).

Direct/Personal [= Attested, Witnessed, Firsthand, Confirmative]
- Participatory/Endophoric; <Common knowledge>
- Visual (with subtypes)
- Non-visual [= Sensory]

Indirect/Personal
- Inferential (based on observed results)
- Presumptive (based on plausible reasoning); <Common knowledge>

Indirect/Non-personal [= Secondhand]
- Reported (with subtypes)

Figure 17. Updated classification of evidential values (Plungian, 2010:37)

As Musi points out, in this second version

> the integration of Willett's (1988) and Frawley's (1992) models is even clearer in that the three main classes of evidential values identified are the result of the intersection between the binary oppositions of access to information 'direct/indirect', which distinguishes sensory evidential values from inferences and presumptions as well as from reported, and 'personal/non-personal', which instead groups sensory values and inferences/presumptions and opposes them to reported. (2015:71, my translation)

Moreover, in this new classification Plungian introduces the *common knowledge* category, which he indicates can be represented by both markers of *endophoric* direct evidentiality as well as by *presumptive* evidentials ("based on plausible reasoning", see Fig. 17).

In this revised classification, Plungian also distinguishes *endophoric* markers from *participatory* markers. While the former "are used when speakers have to describe their own mental, emotional or physiological state" – situations which "cannot be perceived through any of the five "external" senses, but may be accessed only on the basis of 'internal' sensations, which shows that it seems to be a special type of direct access" – the latter "are used in those cases in which the speakers themselves arc participants of the situation which they speak about: they do not know about a situation because they observed it or perceived it in any way, but because they were directly involved in it" (Plungian, 2010:34). These two types designate two different types of knowledge acquisition modes, most importantly because of the intrinsic difference of the "types" of

knowledge (internal sensations or states vs external events or situation) but are quite similar inasmuch they indicate personal participation as the mode of access:

> The participatory value is close to the endophoric one, but, as far as one can conclude from existing descriptions, it is much more likely to occur with predicates denoting activities and less so with predicates referring to internal states of the subject. Moreover, these two types of markers of direct access can be regarded as the realization of one and the same strategy of obtaining information about a situation, namely one that is not based on an observation of this situation, but on the direct participation in it. (Plungian, 2010:34)

This evidential value is also included in Seppo Kittilä's classification of evidentiality types, where is referred to as *ego-evidence*:

> […] ego-evidence refers to the speaker's own (usually volitional) participation in the event denoted (the evidence type has also been labeled as participatory evidence or egophoricity in later studies). (Kittilä, 2019:3).

Alexandra Aikhenvald, on the basis of an extensive comparison of numerous languages, classifies evidential values building what can be considered "the most realistic from the typological point of view" (Musi, 2015:68). Aikhenvald identifies six "recurrent evidential parameters":

> I. VISUAL: covers information acquired through seeing.
>
> II. NON-VISUAL SENSORY: covers information acquired through hearing, and is typically extended to smell and taste, and sometimes also to touch.
>
> III. INFERENCE: based on visible or tangible evidence, or result.
>
> IV. ASSUMPTION: based on evidence other than visible results: this may include logical reasoning, assumption, or simply general knowledge.
>
> V. HEARSAY: for reported information with no reference to those it was reported by.
>
> VI. QUOTATIVE: for reported information with an overt reference to the quoted source. (Aikhenvald, 2004:65)

As noticed by Robin (2024:53), these types can be traced back to the three macro-categories already discussed: I-II can be seen as two subtypes of *direct / sensory*, III-IV are types of *inferential* evidence and V-VI of *reported* evidence. Aikhenvald distinguishes,

interestingly, two subcategories of reportatives abandoning however Willett's (1988) tripartition (viz *second hand*, *third hand*, *folklore*) which is perhaps not typologically relevant. The distinction is more systematic, based on the type of reference: in *hearsays*, the source is not specified (maybe because unknown, or irrelevant – in this resembles *folklore*) while in *quotatives* the source is overtly referred to.

Aikhenvald (2004) then classifies the languages on the basis of the number of evidential choices – grouped into systems numbered A, B, C etc. – and details which 'parameters' are expressed in each group of languages (see the table in Fig. 18).

<table>
<tr><th></th><th></th><th>I. Visual</th><th>II. Sensory</th><th>III. Inference</th><th>IV. Assumption</th><th>V. Hearsay</th><th>VI. Quotative</th></tr>
<tr><td rowspan="4">2 choices</td><td>A1</td><td colspan="2">firsthand</td><td colspan="3">non-firsthand</td></tr>
<tr><td>A1</td><td>firsthand</td><td colspan="4">non-firsthand</td></tr>
<tr><td>A1</td><td colspan="2">firsthand</td><td colspan="2">non-firsthand</td><td colspan="2">different system or <no term></td></tr>
<tr><td>A4</td><td><no term></td><td>non-visual</td><td colspan="2"><no term></td><td colspan="2">reported</td></tr>
<tr><td rowspan="5">3 choices</td><td>B1</td><td colspan="2">direct</td><td colspan="2">inferred</td><td colspan="2">reported</td></tr>
<tr><td>B2</td><td>visual</td><td>non-visual</td><td colspan="2">inferred</td><td colspan="2"><no term></td></tr>
<tr><td>B2</td><td>visual</td><td>non-visual</td><td colspan="4">inferred</td></tr>
<tr><td>B3</td><td>visual</td><td>non-visual</td><td colspan="2"><no term></td><td colspan="2">reported</td></tr>
<tr><td>B4</td><td><no term></td><td>non-visual</td><td colspan="2">inferred</td><td colspan="2">reported</td></tr>
<tr><td rowspan="3">4 choices</td><td>C1</td><td>visual</td><td>non-visual</td><td colspan="2">inferred</td><td colspan="2">reported</td></tr>
<tr><td>C2</td><td colspan="2">direct</td><td>inferred</td><td>assumed</td><td colspan="2">reported</td></tr>
<tr><td>C3</td><td colspan="2">direct</td><td colspan="2">inferred</td><td>reported</td><td>quotative</td></tr>
<tr><td>5 choices</td><td>D1</td><td>visual</td><td>non-visual</td><td>inferred</td><td>assumed</td><td colspan="2">reported</td></tr>
</table>

Figure 18. "Semantic parameters in evidentiality systems" (Aikhenvald, 2004:65)

The various taxonomies examined in this section are primarily grounded in definitions of evidentiality as a grammatical category and draw on interlinguistic and typological approaches. Most of these classifications are organized around the concept of *mode of access*, although some, such as Plungian's, also incorporate the notion of *source of knowledge* as a central organizing principle. Notably, a tripartite division – comprising *direct*, *reported*, and *inferential* evidence – emerges consistently across the different frameworks, with variation occurring primarily at the level of subcategorization.

In the following section, I will examine in greater detail both the principal evidential categories, presenting the diverse definitions and perspectives found in the literature, and selected subcategories that are particularly relevant or conceptually significant. This

characterization will serve as a foundation for introducing the taxonomy developed and adopted in the present study, which will be illustrated in Ch. 6.

3.3.2.1. Reported evidentials

Reported evidential markers – also referred to as *reportative*, *hearsay* or *reportive* – serve primarily to indicate that the information has been obtained from a third party's discourse.

In this sense, reported evidentiality is close to *reported speech*. However, the boundaries between these two domains are a bit fuzzy (see the discussion in Miecznikowski and Battaglia, 2025a). Robin (2024) identifies four main positions on the relation between reported evidentiality and reported speech. Firstly, some scholars clearly distinguish the two categories (Guentchéva, 1994; Kronning, 2002; Bednarek, 2006; Wiemer, 2010; Boye, 2010c, 2012; Chojnicka, 2012; Authier-Revuz, 2020; Dendale, 2022). For them, reported speech is not a form of reported evidentiality inasmuch it represents the "*object of saying*" (Robin, 2024:55) and not merely the source of a proposition. Going back to Anderson's (1986) characterization of evidentiality, reported speech in this view is not considered evidential as it is "the main predication of the clause" (see §3.1.1).

A second, completely opposite position is represented by those scholars who include *in toto* reported speech within reported evidentiality (Li, 1986; Hassler, 2002; Cruschina and Remberger, 2008; Ebrahimi Dehkordi and Allami, 2012; Reber, 2021). According to this view, as reported speech indicates that the information in the reported proposition is known because of the verbal transmission of someone else, it can be considered in all respects a type of reported evidentiality.

Berglind Söderqvist (2017) propose instead to include within reported evidentiality only *indirect* reported speech and exclude *direct* reported speech. Similarly, Mélac (2014) distinguished a *discourse narration* from *hearsay evidentiality*, seeing them as two opposed poles of a *continuum*, noting that in certain cases direct speech indicators can have an evidential function.

Finally, Mushin (2000; 2001) distinguishes *narrative* and *evidential* direct speech. In the first,

> [t]he reported speaker is a character in the story, the words that they speak are deictically centered within the story, and the speech act itself is an event in

> the story world. In contrast, the direct speech passages in (19) and (20) do not represent individual events in the story, but rather the prior act of narration itself. The reported speaker is not a character in the story but rather the person who told the story. These are therefore examples of *evidential* direct speech that explicitly ground the narrative as a product of someone else's utterance. (Mushin, 2000:951)

She thus recognizes that, in some specific contexts of use, reported speech can be considered as an evidential.

Robin (2024:56) follows "those authors who consider that any form of reported speech – when the content of the reported utterance is a proposition […] – is included in the evidential domain". On the same vein, I do consider reported speech as a particular case of reported evidentiality, as I will discuss more in detail in Ch. 5.

Different works (Faller, 2012; Déchaine et al., 2017; Cornillie, 2018) highlighted that reported evidentials do not (necessarily) bear speaker's commitment, in that they sometimes only *present* a proposition without asserting it; Faller (2012:295) argues that reportative evidentials only *put forward* (Faller, 2012:295) propositions into the discourse.

3.3.2.1.1. Self-reporting

Some scholars include, within the domain of reported evidentiality, cases in which the speaker themselves is the source of the reported information. (14) is an example of self-reporting drawn from the corpus analysed in this work.

(15) *As I said*, we also have an accompanying host campaign (ABNB_Q1_21)

Evidently, in this case the evidential expression is used to attribute knowledge to the *interlocutors* – or at least to indicate that the knowledge is accessible to them – and not to index the speaker's source for *p*.

Although, as Robin (2024) observes, it is not widespread in the literature, I claim that these cases of *self-reporting* ("*reprise autophonique*", Robin, 2024) can be considered a full-fledged type of reported evidentiality. This particular subtype will be discussed more in detail in Chapters 6 and 7.

3.3.2.1.2. Folklore

As was discussed in the preceding section, certain authors have identified subtypes of reported evidentiality. For instance, Willett (1988) distinguishes between *second-hand*, *third-hand* and *folklore*, and considers the first two to be part of the category of *hearsay*. In contrast, Aikhenvald (as previously mentioned) eschews this distinction in favour of a more systematic approach, distinguishing between *hearsay* and *quotatives* based on the presence or absence of an overt reference to the source.[58]

Beside Willett, who defined *folklore* as "oral literature" – so that evidence from folklore means that "the speaker claims that the situation described is part of established oral history" (Willett, 1988:96) – this category did not receive much attention in the literature. Wachtmeister Bermúdez (2005) indicates folklore as the most representative example of *universal* access to information. Recently, this category has been discussed by Seppo Kittilä (2019; 2020), who identifies folklore as a distinct evidential category, paradigmatically opposed to other evidential types. He defines folklore as follows:

> 1. Folklore presents the (oral or written) heritage of one's own culture including myths, traditional stories, history etc., which has been passed on from generation to generation.
>
> 2. The speaker has not been involved in the events depicted in any way, and they consequently do not have any personal evidence (of any kind) for the information they are referring to.
>
> 3. Folklore resembles reported evidence, but in contrast to typical reported evidence, the original source of information is completely unknown.
>
> 4. Due to the origin and nature of folklore, the speaker has no evidence for or against its truth value. However, due to its importance for one's own culture, the speaker may believe folklore to be true and have subjective certainty of its truth value. (Kittilä, 2020:699)

As Kittilä (2020) observes, folklore resembles reported evidence; assuming the criteria proposed by Plungian (2010), both can be characterized as indirect and impersonal. However, there are some fundamental differences. First, as already highlighted in the

[58] Plungian (2010:37) in his revised classification of evidential values accounts for "subtypes" of reported evidentiality, without however clarifying what these subtypes are.

above quoted definition, while for reported evidence it is possible to indicate the source – although the speaker can choose to omit it – in the case of folklore it is impossible:

> folklore differs from typical reported evidence in that the speaker usually knows their source for hearsay, and it is always known in the case of quotation, but the speaker cannot name the original source nor have they learnt the given piece of information from its original source for folklore. (Kittilä, 2020:700)

Although there is no reference to a specific source, Kittilä (2020:700) notes that folklore can generally be considered as "highly reliable evidence", this reliability stemming from "from the nature of the information itself, not from its source; folklore is reliable evidence due to its relevance for us as representative of our own culture". This aspect constitutes another fundamental difference with reported evidence – whose reliability is in turn evaluated based on *who* is the source – and is related to a further characterizing dimension: Folklore-based information, according to Kittilä (2020:701), can be characterized as *internalized*, which "means that folklore has become the speaker's internal information", features that does not apply to reported speech. In this concern, folklore resembles what Kittilä defines *general knowledge*.

Kittilä (2019: 122) defines general knowledge as "pieces of information that have become the speaker's internal information, which renders the given information certain and makes external evidence unnecessary". He identifies two subtypes of general knowledge: the first includes "generally known truths, such as scientific, historical and geographical facts", the second encompasses "states-of-affairs that have become parts of our established world view based on our personal experiences of the world" (Kittilä, 2019: 122). Folklore can be however seen as a third type of general knowledge; although it is similar to the first type – scientific or generally known facts – it has a different status inasmuch it has a "story-like nature" and because "it is basically impossible to have any (dis)confirming evidence for it, which is in principle always available for the second type of general knowledge, and for a part of the first type" (Kittilä, 2019: 1284). Moreover, folklore is coded differently in language: while for general knowledge speakers often employ markers of direct evidentiality, folklore is usually signalled by indirect evidentials (Kittilä, 2019).

Miecznikowski (2022), in a study on evidential values in scientific discourse, observes that within the most employed types of sources in the corpus analysed there is what she defines *stable knowledge* ("*connaissance stable*"). This category is understood as follows:

> [T]he evidential category of stable knowledge includes some references to the speaker's individual knowledge, but above all references to collective knowledge, stabilised by agreements reached by the scientific community in the past. In the latter case, this is a specific variant of *Folklore*, which for Willett (1988) is one of the forms of *hearsay*, but which here does not exclude the fact that the speaker, as a member of the community, has participated personally in the acquisition of knowledge, notably through direct experience or through experimental-inferential scientific procedures. (Miecznikowski, 2022, my translation)

This category, in a sense, encompasses both Kittilä's categories of *folklore* and *general knowledge*, and it allows for the inclusion of information that forms part of folklore or general knowledge but to whose acquisition the speaker was actually present – something that, in the case of folklore, is not assumed in either Kittilä's or Willett's classifications.

The differing conceptualizations proposed by these scholars suggest that this category is more complex than it might initially appear. Nevertheless, it constitutes a distinct evidential category in its own right – one that can be particularly significant in focused fields and domain-specific contexts where interlocutors share a highly specialized body of knowledge, such as in scientific discourse as illustrated by Miecznikowski (2022).

The categories of *folklore*, *general knowledge*, and *stable knowledge* provide the foundation for the definition of a specific evidential category adopted in this study, namely *common knowledge* (see Ch. 6 §6.2.2.4).

3.3.2.2. Inferential evidence and its subtypes

As discussed above, inferential evidentials in the literature are defined as a subtype of indirect evidentiality indicating that the speaker's knowledge is derived from a reasoning process.

However, as Dendale and Miecznikowski (2023:18) emphasize, not every inference qualifies as evidential. According to their analysis (2023:19), two main "strategies" have been adopted in the literature to define and further differentiate subtypes of evidential inference. The first strategy focuses on the *type of premises* upon which the inference is based (Willett, 1988; Aikhenvald, 2004; Squartini, 2008; Cornillie, 2009; Plungian, 2010; Diewald and Smirnova, 2010; Marín-Arrese, 2015; 2017; Leclercq and Mélac, 2021), while the second is centred on the *type of inferential operation* performed (Desclés and

Guentchéva, 2001; 2013; 2018; Chafe, 1986; Dendale, 1991; Dendale and De Mulder, 1996; Simon-Vanderbergen and Aijmer, 2009).

With regard to the first axis, inferences are typically divided between those based on *perceivable*, *external* cues and those based on *non-perceivable* or *internal* cues. For instance, Barnes (1984) distinguishes between *apparent* and *assumed*, while Willett (1988) differentiates *results-based inferences* from *reasoning-based inferences*. Squartini (2008) and Cornillie (2009) adopt the labels *circumstantial inferences* and *generic inferences* for these two types, respectively. Squartini (2008) introduces also the category of *conjectures* – which, as will be discussed shortly, are inferences lacking any evidence – and conceptualizes the three types of inferential evidentials as positioned along a continuum: *circumstantial inferences — generic inferences — conjectures*. He argues that all three are "based on the same mode of knowing", insofar as they are "products of the speaker's reasoning process and therefore inferential processes", yet they can be distinguished "along a parameter that is connected to the balance between the speaker's involvement as opposed to the import of external evidence" (Squartini, 2008:925).

Other authors, such as Schlichter (1986), Aikhenvald (2004) and Plungian (2001; 2010), also base their distinctions on the nature of the premises but tend to reserve the label *inference* for those derived from sensorial (i.e., perceptual) evidence. For instance, Schlichter (1986), in her analysis of the evidential system in Wintu, distinguishes *inferentials* from what she terms *expectational* evidence, cases based on the speaker's experience with similar situations, patterns, or recurring circumstances in human life (1986:52).[59] Similarly, Aikhenvald (2004:65) separates pure *inferences*, which are "based on visible or tangible evidence, or result", from *assumptions*, which are instead "based on evidence other than visible results: this may include logical reasoning, assumption, or simply general knowledge") (see §3.3.2). Plungian (2010), for his part, refers to this latter type of reasoning as *presumptive*.

Alongside these two widely categories of inferentials, a third has been proposed to capture cognitive inferential processes that do not rely on either observable evidence or shared world knowledge. These processes, referred to as *conjectures* by Squartini (2008) and Cornillie (2009), represent a type of reasoning entirely detached from external or

[59] Musi (2015) notes that the distinction between the two categories proposed by Schlichter closely resembles Willett's (1988) subdivision.

inferential grounding. What distinguishes conjectures is the complete absence of supporting evidence or grounding: they are based solely on the speaker's internal cognitive operations. As Squartini (2008:924) notes, they involve a mode of reasoning where "any evidence, both external and based on general world knowledge, is lacking", making the conclusions inaccessible to others.

The category of conjecture is conceptually close to that of *intuition*, which also figures in the literature as a unique evidential category. Willett (1988) includes intuition among the bases for "inferences from reasoning", defining them as inferences drawn "on the basis of *intuition*, logic, a dream, previous experience, or some other mental construct (Willett, 1988:96, emphasis added). Dendale (1991) argues for treating intuition as a *reflexive operation*, distinct from both perception and inference. In his analysis of the verb *sentir*, he highlights uses where it conveys intuitive cognition rather than sensory input – cases that reflect internal mental processes rather than inferential logic (Dendale, 1991:66). Similarly, Usenkova (2015:183) characterizes intuition as a kind of non-visual *interoceptive* perception, whereby knowledge is acquired "through internal organs, 'gut' feelings, intuition". Building on these insights, Dendale and Schuring (2023) argue that intuition deserves to be recognized as a distinct evidential subcategory, separate from perception, inference, and report. Examining French constructions like *quelque chose me dit que* and related expressions, they demonstrate how such phrases function as evidential markers specifically encoding intuition. Their analysis posits that intuition differs from perception in that it yields *propositional content* whereas perception typically involves *non-propositional* '*percepts*' – "a mental image which has not yet a propositional form as it has not yet been verbalized" (Dendale and Schuring, 2023:268-269, my translation). Furthermore, intuition diverges from inference in being *non-rational*, *non-explainable* and *non-justifiable*. It offers *immediate* access to knowledge, whereas inference is rational, explainable, and evidence-based (Dendale and Schuring, 2023:269-270).

Whether viewed as a subtype of inference or as a distinct evidential category, these cognitive processes – defined by their lack of external support – bear strong resemblance to the category of *belief* as described by Chafe (1986). As Squartini (2008) underscores, conjectures and intuitions reflect "the speaker's most subjective reasoning" and are, by their nature, inaccessible to others. In this sense, they resonate with the concept of *subjectivity* as theorized by Jan Nuyts (2001) (see §3.4.1.4).

On the other hand, inferentials can be classified according to the type of inferential operation. In this case, the subcategories align with the categories of *induction*, *deduction*, or *abduction*.

As seen above (§3.3.2), Chafe (1986) identifies *induction* and *deduction* as two distinct *modes of knowing*.[60] The former refers to a type of reasoning grounded in *evidence* – which may be either direct or indirect, and may be linguistically signaled or left implicit – while the latter is based on a *hypothesis* and "involves an intuitive leap to a hypothesis from which conclusions about evidence can be deduced" (Chafe, 1986:269). Interestingly, although these categories are presented as distinct types of reasoning, their core difference ultimately lies – once again – in the nature of the evidence that serves as the premise for the reasoning. As noted by Simon-Vanderbergen and Aijmer (2009:26), Palmer (1986) refers to what Chafe calls 'induction' as *deduction*, which designates inferences drawn from known facts. While for Chafe (1986:266) *must* represents the most common marker for induction, for Palmer (1986) its main feature is exactly that of representing a deductive inference.

Both of them ignore the category of *abduction*. This notion was introduced by the philosopher Charles Peirce to define a weak reasoning process, distinguished from induction and deduction:

> Abduction is the process of forming an explanatory hypothesis. It is the only logical operation which introduces any new idea; for induction does nothing but determine a value, and deduction merely evolves the necessary consequences of a pure hypothesis. Deduction proves that something *must* be; Induction shows that something *actually is* operative; Abduction merely suggests that something *may* be. (CP 5.171) [61]

[60] Chafe does not explicitly consider induction and deduction as subcategories of inferentials. However, they are both conceived as types of reasoning or inference.

[61] The numbers refer to the volume and the paragraph (v.pp) in Peirce's *Collected Papers* (CP), edited between 1931 and 1958.

An abductive inference is thus a "*hypothetic inference*"[62] and indicates a "reasoning from consequent to antecedent" (CP, 5.276) which attempts at providing an (hypothetical) explanation to a "surprising fact":

> The surprising fact, C, is observed;
> But if A were true, C would be a matter of course,
> Hence, there is reason to suspect that A is true. (CP, 5.189)

All of these three logical categories are based on *rules* or *laws*, *results* and *cases*; however, while deduction "applies a law to a case and predicts the results" and induction "proceeds from observed cases and results to establish a rule", abduction "proceeds from an observed result, invokes a law, and infers that something may be the case" (Andersen 1973:775). Deduction allows to reach a conclusion that is necessarily true if the premises are true, while induction concludes a probable conclusion; conclusions from an abductive reasoning, on the contrary, is only plausible. However, as Peirce highlighted (see *supra*; CP 5.171), abduction is the only reasoning process that allows to gain novel knowledge.

Jean-Pierre Desclés and Zlatka Guentchéva in their works (Guentchéva, 1994; 2004; Desclés, 2018; Desclés and Guentchéva, 2001; 2013; 2018) draw on the Peircean notion of abduction and argue that inferential evidentiality (which they refer to as "inferential *mediativity*"[63]) are "fundamentally abductive in nature" (Dendale and Miecznikowski, 2023:62). More precisely, in their view an inferential marker can be considered evidential only if the inferred conclusion drawn from an observed result and a general rule is presented as plausible, thus following a causal direction "from effect to cause". In contrast, when the inference leads to a probable conclusion based on a causal direction "from cause to effect" (deduction), the inferential marker is instead seen as pertaining exclusively to epistemic modality (Desclés, 2018:394–397). Dendale and Miecznikowski (2023:21) point out that this interpretation corresponds to what they refer to as Desclés and Guentchéva's "narrow claim", which is afterwards expanded:

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[62] Interestingly, according to Simon-Vanderbergen and Aijmer (2009:26), what Chafe calls induction – which is a hypothesis-based inference – actually correspond to the category of abduction, insofar it is a weak hypothetical reasoning.

[63] Desclés and Guentchéva use the French term '*médiativité*' (*mediativity*) instead of '*évidentialité*'. A detailed discussion on the notional differences between evidentiality and mediativity is presented in Dendale and Miecznikowski (2023).

> In the narrow version, only markers of inferential evidentiality/mediativity are linked to the Peircean notion of abduction. In the broad version, all types of mediativity/evidentiality are considered abductive. Abduction then becomes definitional of mediativity as such.

One last position worth mentioning is that drawn by Dendale (1991), who distinguishes six subtypes of inferential operations: alongside with *deduction* and *induction*, he introduces *calculation* (‘*Calcul*’), *estimation* (‘*Estimation*), *assumption* (‘*Supposition*’), and *non-specified evidence* (*Inférence de type non spécifié*) (Dendale, 1991:64).

3.3.2.3. Extended meanings of perception verbs

Verbs of perception are one of the lexical classes most commonly recruited to form evidential constructions, and in particular direct evidentials. As I will show, perception verbs are recurrent in the data and raise specific problems of interpretation. These verbs have some semantic peculiarities that is relevant to mention as affect the analysis of direct evidentials.

Several studies have observed the polysemic nature of perception verbs, showing that it is a cross-linguistic phenomenon (e.g. Kirsner and Thompson, 1976; Viberg, 1983; Sweetser, 1990; Freeman Baker, 1999; Ibarretxe-Antuñano, 1999, 2008; Voinov, 2013; San Roque et al., 2015; 2019; Szczyrbak, 2019; Miecznikowski, 2022b). As San Roque et al. (2019:375) underline, “[b]asic perception verbs often have additional meanings that do not refer to literal sensory experience”, and often such additional meanings are related to the domain of *cognition*. Sweetser (1990) describes this kind of semantic extension as a metaphorical mapping from the physical-perceptual domain to the domain of mental processes (“Mind as Body” metaphor). In a similar vein, Ibarretxe-Antuñano (2008) underscores that “Understanding is perception” is a cross-linguistically shared principle. Expressions of perception, including mostly sight but also hearing and other senses, are commonly employed in an extended way to convey meanings related to knowledge and understanding. This widespread connection between perceptual and cognitive meanings is possibly due to a “common, embodied experience of transforming sensory stimuli into mental objects” (San Roque et al., 2019:398).

Although there is cultural variation as to the specific sensory modality involved, the category most strongly associated with cognition is that of *sight*. The link between the two domains has long been recognized and discussed in several works (*inter alia*, Sweetser,

1990). Visual predicates often refer to mental states and cognitive processes and can assume an inferential evidential meaning, when they are used to indicate a reasoning process or its result. "To see" comes to mean "to understand", "to find out" or "to interpret", "to imagine a situation" or even "to get to know"[64] (Freeman Becker, 1999). Perception verbs, and sight expressions in particular, can thus be used to indicate a cognitive process and with an inferential evidential meaning.

However, this kind of verbs and expressions can assume other kinds of meaning extension, both metaphoric and metonymic. For instance, as I will discuss more in detail in Chapter 5 and 6, in ECCs the information discussed – such as numerical data, indices, or changes like growth and loss – is usually abstract, given the inherently non-material nature of financial markets, and such abstract, a priori non perceivable, information is often found in the scope of perception verbs, especially visual ones. Only in some cases this apparent mismatch can be solved by interpreting the visual verb as an inferential evidential. In other cases, it emerges that they are used with a non-literal meaning, encoding an empirical process of knowledge acquisition in which sight plays a role in various ways.

3.3.3. Knowledge management in interaction

Research on the role of evidentials in interaction aligns with, and further develops, the frameworks established in works that focus more broadly on knowledge management in conversation. Within this research strand, one of the foundational works is the collective volume *The Morality of Knowledge in Conversation* edited by Stivers, Mondada, and Steensig (2011), which investigates how participants in conversation negotiate knowledge rights and responsibilities. Additionally, John Heritage's seminal works (2012a; 2012b) contribute significantly to this area by elaborating on the concepts of *epistemic stance* and *epistemic status*, drawing on Kamio's *territory of knowledge* theory.

In the next sections, I will outline the key theoretical concepts relevant to the interactional analysis of knowledge management. I will start with Kamio's (1994; 1995; 1997) *theory of territory of knowledge* and its subsequent development by Heritage (2012a, 2012b), clarifying his concepts of *epistemic stance* and *epistemic status*. I will

[64] Amon many other examples, we might consider the ancient Greek verb *οἶδα*, the perfect tense of *ὁράω* ("to see"), which, although its primary meaning is "I have seen" or "I saw," was mainly used with the meaning "I know" – that is, *I know because I have seen*.

then introduce Stivers, Mondada, and Steensig's (2011) framework on the *dimensions of knowledge in conversation* and the three notions of *epistemic access*, *epistemic primacy* – and the connected notion of *epistemic authority* – and *epistemic responsibility.* Additionally, I will explore the concept *(inter)subjectivity* before examining how evidentials serve as *epistemic stance resources*. The focus will be on how evidential markers display these dimensions in dialogue, and the various pragmatic effects they can produce in discourse.

3.3.3.1. Territories of knowledge[65]

The notion of *territories of knowledge* – also referred to as *epistemic domains* (Stivers and Rossano, 2010) – was introduced by Kamio (1994; 1995; 1997) to illustrate knowledge division among interactants' and their relative access to it. The core idea is that pieces of information can fall within one's *territory* – "[t]he notion of 'territory' being discussed here might seem very similar to the common sense notion of territory" (Kamio, 1997:6) – meaning that it pertains to their domain of expertise or experience. In his view, information can be located on subjects' *psychological scales* "which measure the distance between the speaker/hearer and a given piece of information" (Kamio, 1997:17). Thus, every piece of information can be more or less *close* to the subject, as illustrated in the diagram in Fig. 19.

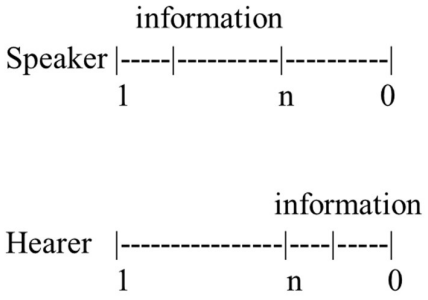


Figure 19. "Speaker and hearer psychological scales and information closeness" (Kamio, 1997:17)

Kamio defines two conceptual categories: the speaker's and the hearer's *territory of information*. A piece of information belongs to the speaker's territory if it is epistemically *closer* to them than to the hearer, and vice versa:

[65] For a discussion of this notion, see also Geddo (2025:74-86).

> Let us assume a conceptual category, 'the speaker's territory of information', and that information which is 'close' to the speaker falls into his/her territory of information. We also assume that 'the hearer's territory of information' contains information which is close to him/her. Then, the first generalization mentioned above would be stated as: when a given piece of information falls into the speaker's territory but not the hearer's, the speaker uses the direct form; when a given piece of information falls into the hearer's territory but not the speaker's, the speaker uses the non-direct form. (Kamio, 1997:6)

> There are two conceptual categories called the speaker's and the hearer's *territory of information*. A given piece of information that is closer to the speaker than n belongs to the speaker's territory of information, and that which is closer to the hearer than n belongs to the hearer's territory of information, where n is a specified value between 1 and 0 and designates the outer boundary of both territories. (Kamio, 1997:17)

This concept builds on earlier distinctions, such as Labov and Fanshel's (1977) *A-events* and *B-events* – where A-events are known to A but not B, and vice versa B-events are known to B and not to A[66] – as well as Pomerantz's (1980) *Type 1 and Type 2 knowables*. "Type 1 knowables are those that subject-actors as subject-actors have rights and obligations to know" whereas "Type 2 knowables are those that subject actors are assumed to have access to by virtue of the knowings being occasioned" (Pomerantz, 1980:187).[67]

Kamio expands and systematizes these ideas, as noted by Heritage (2012a, 2012b). He also defines the conditions determining whether a piece of information belongs to the speaker's or hearer's epistemic territory (Kamio, 1997:17-18):

> (a) information obtained through the speaker's/hearer's internal direct experience

> (b) information embodying detailed knowledge which falls into the range of the speaker's/hearer's professional or other expertise

[66]Their classification includes, alongside with A- and B-events, also *AB-events* (Known to both A and B), *0-events* (Known to everyone present) and *D-events* (known to be disputable) (Labov and Fanshel, 1977:100).

[67] These notions will be central in the discussion of the category of *epistemic responsibility* (see §3.4.1.3.3).

(c) information obtained through the speaker's/hearer's external direct experience including information verbally conveyed to the speaker/hearer by others which he/she considers reliable

(d) information about persons, objects, events and facts close to the speaker/hearer including such information about the speaker/hearer him/herself[68]

Information satisfying conditions (a), (b) and (d) aligns with Pomerantz's Type 1 knowables, as it is inherently close to the subject (speaker/hearer), who thus has epistemic right and responsibility (they are assumed to know). Meanwhile, information fulfilling condition (c) partially correspond to Type 2 knowables, though Kamio's definition extends to firsthand but external experiences, while Pomerantz's category includes only information obtained through an external source (Pomerantz, 1980:187-188). An internal experience, such as a thought, an impression or a feeling fulfils condition (a) and is a Type 1 knowable; the knowledge of an event by the means of the subject's observation or participation in it, it is again a Type 1 knowable but fulfils condition (c), while an information acquired through the reporting of someone else is a Type 2 knowable and fulfils condition (c).

Kamio (1997) also introduces two *meta-conditions*

(e) Information meeting conditions (b), (c), and (d) is considered less close to the speaker/hearer if he/she does not have an adequate basis for asserting it (This condition is inapplicable when the second half of (c) applies)

(f) Information whose accessibility to the speaker/hearer is low is considered less close to him/her[69]

Meta-condition (e) specifies that for information fulfilling conditions (b), (c), and (d), reliable evidence – *an adequate basis* – is required to assert it. However, information that meets condition (a) is not subject to this restriction because an internal feeling, by its very nature, is neither disputable nor justifiable. We do not have external *evidence* for our internal experiences beyond the experience itself; at most, we may provide an explanation.

Kamio clarifies that the notion of *territory of knowledge* is not absolute but rather relative and gradable. A piece of information does not fall exclusively or entirely within

[68] The original numeration is (25) a; b; c; d.

[69] The original numeration is (34) a and (34) b.

one person's territory of information; instead, it may belong to a subject's territory to varying degrees and can simultaneously be part of multiple individuals' territories to different extents.

> In general, however, the notion has a relative and gradable character so that cases like the following occur. If a given piece of information takes the value (n <) m on the speaker's scale while it takes the value m' (< n) on the hearer's scale (as in the above diagram), then that information falls within the speaker's territory to some degree and not the hearer's since n is the threshold value for information to fall into the speaker's/hearer's territory. On the other hand, if n < m < m' holds in this situation, then that information falls within both territories but more within the hearer's territory than within the speaker's territory. (Kamio, 1997:17)

Additionally, Kamio emphasizes that "the set of information which falls into one's territory of information is a subset of information known to him/her" (Kamio, 1997:16). In his framework, *knowing* something simply means possessing it in one's general storage of information, but not all known information qualifies as part of one's *territory of knowledge*. Instead, this territory is defined by the specific conditions (a)-(d) outlined earlier.).

3.3.3.2. Epistemic status and epistemic stance

Building on the theories of Kamio (1994, 1997) and Pomerantz (1980), John Heritage (2012a, 2012b) develops the concepts of *epistemic stance* and *epistemic status* to analyse epistemic asymmetries in interaction. These notions help illuminate how conversational participants navigate knowledge distribution, which in turn informs the analysis of various conversational phenomena.[70] More broadly, Heritage (2012) argues that communication and interaction are driven by an "epistemic engine", highlighting the fundamental role of knowledge management in discourse.

[70] For instance, in (Heritage, 2012a:30) he "considers the role of relative epistemic stance and status as warrants for the production of talk and as forces in the process of sequence production and decay", while in (Heritage, 2012b:1) analyses requests for information – taking different syntactic forms – and shows that "the epistemic status of a speaker consistently takes precedence over a turn's morpho-syntactically displayed epistemic stance in the constitution of the action a turn is implementing", also highlighting that "consideration of the (relative) epistemic statuses of the speaker and hearer are a fundamental and unavoidable element in the construction of social action".

Heritage (2012a; 2012b) posits that interactants have *relative* and *stratified access* to different territories or domains of information, "such that they occupy different positions on an epistemic gradient (more knowledgeable [K+] or less knowledgeable [K−]), which itself may vary in slope from shallow to deep" (Heritage, 2012b:4). This differentiation in access to information defines *epistemic status*, which refers to a participant's relative epistemic position concerning a specific domain of knowledge in relation to their interlocutor. Epistemic status is inherently relational and dynamic – it fluctuates across different domains and can shift over time based on interactional contributions:

> Epistemic status is thus an inherently relative and relational concept concerning the relative access to some domain of two (or more) persons at some point in time. The epistemic status of each person, relative to others, will of course tend to vary from domain to domain, as well as over time, and can be altered from moment to moment as a result of specific interactional contributions. (Heritage, 2012b:4)

Crucially, Heritage distinguishes epistemic status from *epistemic stance*, which in turn "concerns how speakers position themselves in terms of epistemic status in and through the design of turns at talk" (Heritage, 2012a:33). In sum, speakers occupy different positions on an epistemic gradient (K+/-) in relation to each other, meaning that one is more or less knowledgeable than the other concerning a specific event or object; this epistemic position (epistemic status) can vary but is relatively stable, while the epistemic stance, which is the *presentation* of oneself as more or less knowledgeable within the discourse, is inherently mutable.

> If epistemic status vis-à-vis an epistemic domain is conceived as a somewhat enduring feature of social relationships, epistemic stance by contrast concerns the moment-by-moment expression of these relationships, as managed through the design of turns at talk. (Heritage, 2012b:6)

A speaker's epistemic status – whether K+ or K- – is manifested in interaction through various *epistemic stance expressions* or *resources* (Mushin, 2001, 2013; Boye, 2012; Marin Arrese, 2015; Carretero et al., 2022) [71] or *conversational actions* (Heritage, 2012a, 2012b; Sidnell, 2012). For instance, the act of *asking a question* typically positions the

[71] Evidentials and epistemic modals can serve this function, as will be discussed more in detail in §4.2

speaker as epistemically subordinate (K−), while designating the recipient as more knowledgeable (K+) (Heritage, 2012a:34).

Heritage argues that, although generally epistemic stance and status align (Heritage, 2012a:33; Heritage, 2013:378), they can also diverge. In particular, Heritage notes that "epistemic status can be dissembled by persons who deploy epistemic stance to appear more, or less, knowledgeable than they really are" (Heritage, 2012a:33), meaning individuals may deliberately adopt an epistemic stance that does not reflect their actual knowledge. In other words, speakers may position themselves as more or less knowledgeable than they truly are for strategic purposes. This ability to *discursively manipulate epistemic stance* plays a crucial role in interaction, as speakers may strategically adjust their perceived knowledge in order to exert influence, maintain face, or achieve specific conversational goals.

3.3.3.3. Dimensions of knowledge in conversation

In the introduction to their volume *The Morality of Knowledge in Conversation*, Stivers, Mondada and Steensig highlight that

> In everyday social interaction, knowledge displays and negotiations are ubiquitous. At issue is whether we have epistemic *access* to some state of affairs, but also how *certain* we are about what we know, our relative *authority* and our differential *rights* and *responsibilities* with respect to this knowledge. (Stivers et al., 2011:3)

> In conversation, interactants show themselves to be accountable for what they know, their level of certainty, their relative authority, and the degree to which they exercise their rights and fulfil their responsibilities. (Stivers et al., 2011:9)

They distinguish three main *dimensions of knowledge in interaction*, corresponding to the aspects emphasized in the above definition: *epistemic access*, *epistemic primacy* and *epistemic responsibility*.

These three dimensions, which "are governed by social norms which influence, and are influenced by, social alignment and affiliation" (Stivers et al., 2011:9), concern different aspects of knowledge, which are summarized in Fig. 20 below.

3.3.3.3.1. Epistemic access

Epistemic access refers to the general idea that each speaker holds a relative state of knowledge about a given domain. This notion underscores that a speaker's knowledge is always assessed in relation to that of their interlocutors, thus aligning with Heritage's (2012a; 2012b) concept of epistemic status.

Stivers et al. (2011) highlight two fundamental social norms governing epistemic access: first, "speakers should not inform already knowing recipients about some state of affairs" and second, "speakers should avoid making claims for which they have an insufficient degree of access" (Stivers et al., 2011:10). These norms suggest that conversational participants are generally able to control who has – or could reasonably be expected to have – prior access to specific information or events (Stivers et al., 2011). Speakers constantly control and make presumptions on their interlocutors' epistemic access, as well as on their own, which is reflected in conversational actions and their presuppositions. It should be noticed once again that this epistemic status is defined relatively to the others' and with respect to the specific piece of knowledge and domain under discussion.

Dimension	Description
Epistemic access	Knowing vs. not knowing Degree of certainty Knowledge source Directness of knowledge
Epistemic primacy	Relative rights to know Relative rights to claim Relative authority of knowledge
Epistemic responsibility	Type of knowable (Type 1 vs. Type 2) Recipient design of actions Recipient design of turns

Figure 20. Dimensions of knowledge in conversation, from Stivers et al. (2011:9)

As shown in the table in Fig. 20, epistemic access also relates to the *certainty* and *source* of knowledge, as well as with the *directness* of knowledge. In fact, as stated above, *speakers should avoid making claims for which they have an insufficient degree of access*. In this sense, when making a statement a speaker "can show varying levels of certainty and can differentiate between direct and indirect access" (Stivers et al., 2011:12) to

downgrade or upgrade the degree of access they claim. Epistemic access is thus, analogously to how Heritage (2012a; 2012b) conceptualizes epistemic status, a gradable notion.

3.3.3.3.2. Epistemic primacy and epistemic authority

Epistemic primacy concerns people's "relative rights to tell, inform, assert or assess something, and asymmetries in the depth, specificity or completeness of their knowledge" (Stivers et al., 2011:13). Also in this case, there are social norms regulating speakers' interventions. On the one hand, "new knowledge, particularly 'big news', should be given out in order of relational closeness indicating a sense of who has superior rights to know"; on the other, "speakers should make assertions only when they have sufficient knowledge and rights to do so, and that speakers with more detailed and in-depth knowledge have primary rights to make assertions and assessments regarding this domain" (Stivers et al., 2011:14). Epistemic primacy thus regards speakers' *epistemic authority* toward a specific piece of information, which also entails the right to *tell* something. In cases where two speakers have the same epistemic access to an event or object, the epistemic primacy – and thus the right to introduce it in the dialogue – belongs to the one who has broader knowledge about it:

> Consider the difference between the kind of knowledge two people might have about life in Tokyo: one person has lived there for ten years and another has only visited. Although both have epistemic access to the place's merits and deficits, there is a qualitative difference in the depth of that knowledge – a difference in epistemic authority. (Stivers et al., 2011:14)

Epistemic primacy thus evidently relates to what Kamio (1997) defined the *closeness* of an interactant to an information, as well as to the characterization of events in Labov and Fanshel's (1977) or Pomerantz's (1980) terms as A- vs B-events or Type 1 vs Type 2 knowables. Speakers have epistemic primacy over what falls within their own territories of knowledge – A-events / Type 1 knowables – as it is something they have a deeper knowledge of *with respect to their interlocutors*. As Grzech (2020a:28) points out, "[e]pistemic primacy is more subjective than epistemic access; while epistemic access is concerned with the relationship between the proposition and the origo, epistemic primacy has to do with the distribution of knowledge between participants of the speech event".

Fox (2001:176) claims that "evidential marking, at least in English, indexes social meanings and that the social meanings so indexed involve the speaker's construction, on a particular occasion, with a particular recipient, of *authority*, *responsibility*, and/or *entitlement*". The analysis she conducts to support this claim builds largely on Kamio's theory as well as on Hill and Irvine's work (1993). She underlines that

> […] although Kamio and his colleagues do not use words like "entitlement", "responsibility", or "authority" to describe the social-interactional meanings of evidential forms in Japanese conversation, the framework of territory of information, especially as discussed by Trent (1997) and Rudolph (1993), does make clear that evidential forms in Japanese have social meanings for participants, crucially involving "ownership" of information. (Fox, 2001:175)

Fox relates what she defines as "ownership" of information to what was defined here as epistemic primacy and subsequently interprets this ownership in terms of *epistemic authority*. However, epistemic primacy and epistemic authority, although are clearly strictly connected, can and should be differentiated. I follow Grzech (2020a) who notices that, although they are often used interchangeably, the notions of epistemic primacy and authority are different:

> […] an important distinction can be made between those notions: epistemic authority is gradable: one possesses it if one knows something, although it is possible to know more or less about the matter at hand. Moreover, epistemic authority can, but does not have to be relative. One can have epistemic authority on a subject independently of the knowledge state of other discourse participants. Epistemic primacy, on the other hand, is relative by default: whether or not one can claim to have epistemic primacy always depends on the knowledge states of other participants of a given interaction. (Grzech, 2020a:29)

Epistemic authority can thus be conceptualized in absolute terms and is not necessarily relative – as is, in turn, epistemic primacy. A subject can be as an epistemic authority independently from the knowledge of the other participants. However, as Bergqvist and Grzech (2023) suggest, the display of epistemic authority in interaction is most often than not realized through a relative positioning with respect to the interactants:

> The speaker may claim epistemic authority if knowledge of a given event or referent is within their epistemic territory [...] which in turn is relative to the epistemic territories of other speaking subjects, especially the addressee. (Bergqvist and Grzech, 2023:20)

3.3.3.3.3. Epistemic responsibility

Epistemic responsibility, which is strictly connected to epistemic primacy, "is related to the information that the speaker has an obligation or a right to know" (Grzech, 2020a:29). On the one hand, as Pomerantz (1980) states, "subject-actors as subject-actors have rights and obligations to know" what is within their epistemic territory; on the other hand, "epistemic responsibility clearly extends beyond highly personal information" (Stivers et al., 2011:18). Stivers et al. (2011) in fact notice that "interactants treat each other as responsible for knowing what is 'in the common ground'" (Stivers et al., 2011:18). Therefore, they have the responsibility of performing or not performing certain actions – for instance, a speaker has the responsibility not to ask a question when already knowing the answer, and vice versa question recipients are expected to answer questions if they know the answer.

3.4. Evidentiality in interaction

Having clarified – at least to the extent possible – the notional category of *evidentiality*, I now turn to a different domain: the interactional and conversational approaches to *knowledge management in discourse*. This aspect is closely linked to evidentials, as these linguistic elements are frequently employed in conversation to fulfil what Fox (2001:170) refers to as "social interactional work" related to knowledge negotiation and management.

Over the past few decades, an increasing number of scholars have explored the "social nature of evidentiality" (Fox, 2001:169), marking a shift from the predominantly typological and semantic focus toward a more socially and interactionally grounded perspective.[72] This shift builds on the pioneering contributions of Kamio (1994, 1997), Trent (1997), and Fox (2001), who examined how evidential markers function within conversational exchanges. Among the key studies in this domain, Ilana Mushin's (2001) *Evidentiality and Epistemological Stance: Narrative Retelling* and Nuckolls and Michael's research (2012; 2014) – particularly their edited volume *Evidentiality in*

[72] See Robin (2024) for a comprehensive overview of the body of research in this field in the various languages.

Interaction – represent foundational works on the role of evidentiality in knowledge management in interaction.

These studies collectively underscore the crucial role of evidentials in interaction, particularly in relation to the presentation and negotiation of knowledge. Evidential marking extends beyond "merely" encoding a speaker's modes of knowing and can be analysed in terms of pragmatic aspects and effects "other than the speaker's 'information source'" (Bergqvist, 2017:5). For instance, Nuckolls and Micheal (2014:14) argue that "evidentials are important in managing the social entailments of access to information". As they further elaborate,

> evidentials appear instrumental in achieving a variety of social and interactional effects, making them an especially propitious domain in which to examine the role of grammatical form in mediating social action (Nuckolls and Micheal, 2014:16).

3.4.1. Evidentials as epistemic stance resources

As noted at the outset of this section, evidential markers in interaction serve pragmatic and interpersonal functions that go beyond simply indicating the source of information. While their core semantic function remains signalling the mode of knowing, speakers also use evidentials to position themselves in relation to contextual dimensions such as epistemic access, authority, and responsibility. In this regard, Fox (2001:177) observes that

> […] speakers vary the evidential marking of an utterance on different occasions because their claim to authority, responsibility, or entitlement may be sensitive to whom they are speaking with, and hence their evidential marking may be sensitive to their recipient(s).

This idea is further developed by Mushin, who argues that evidential choice is not merely a matter of indexing a source, but rather "must be understood in terms of a speaker's motivations (rhetorical, interactional, intentional, etc.) in making an evidential choice in the particular situation which is selected" (Mushin, 2013:635). She reinforces this interpretation by describing evidentiality as "the linguistic category par excellence for expressing the status of one's knowledge" (Mushin, 2001:1; see also Mushin 2001:52).

A similar position is taken by Sandman and Grzech (2022:82), who assert that "evidential marking indexes not only the source of evidence/mode of access, but also the

distribution of knowledge between speech-act participants, and, in many cases, knowledge-related rights and responsibilities". These insights support the idea that evidentials function as markers of *epistemological stance* (Mushin, 2001) or *epistemic stance resources* (Boye, 2012; Heritage, 2013; Grzech, 2016, 2020a, 2020b, 2021; Carretero et al., 2022).

Speakers' use of evidentials is thus closely tied to rhetorical intention and interactional stance-taking. As Grzech (2021:209) highlights, "speakers use evidentials, as well as other forms of epistemic marking, in line with their rhetorical intentions, depending on how they want their own utterance to be understood and treated at the moment of interaction" and adds that this holds for both grammatical evidentials and evidential strategies more broadly.

Mushin (2001:81) similarly notes that "the mismatch between actual source of information and the ways that speakers talk about the status of their knowledge indicated that the choice of evidential strategies adopted by speakers relied on a pragmatically determined construct, that went beyond the application of semantico-grammatical rules". Bergqvist and Grzech (2023:10) build on this observation, arguing that such mismatches "speak in favor of a pragmatically based account of evidentials", whereby direct evidentials encode not just information source, but also the speaker's epistemic authority. Their observations, along with the frequent co-distribution of evidentials with person marking, underscore the extent to which evidential marking is embedded in broader social and epistemic negotiations. An observation in this direction is made by Aikhenvald (2023:6) in the Tariana language, in which a mismatch may occur between the actual information source and the chosen evidential due to other factors: "the actual choice of preferred information source will be determined by a number of further parameters, including a. what kind of access speaker has to information, b. the type of information, and c. the status of the speaker within the community". She also underlines that

> The principles of evidential choice is embedded within the Tariana system of beliefs and attitudes to knowledge. Preferences which govern these choices are intrinsically linked with access to knowledge and can be manipulated in natural discourse to reflect speakers' stance, attitudes, and even societal changes. (Aikhenvald, 2023:6)

We can now turn to discuss some pragmatic-interactional functions and effects of evidentials.

3.4.1.1. Pragmatic effects of evidentiality in discourse

In the literature, several works underline how indicating the knowledge source through the use of evidential markers have a *distancing* and *mitigating* function. Caffi (2007) in her foundational work on mitigation, enlists evidentials among *shield* strategies, namely strategies that mitigate speaker responsibility by reducing the presence of *ego*, *hic* and/or *nunc*. Similarly, Guentchéva (2014) emphasises that evidentials have a *commitment reducing effect*.

The analysis conducted by Fox (2001:178) suggests that the use of evidentials can distance the speaker from full authority. In the specific case in point, the use of an indirect evidential ("*apparently*") is used by the speaker to signal that he is not the originator of the claim or either that he makes the claim on the basis of an indirect knowledge. In both cases, the speaker "has not appropriated the claim for himself, and distances himself from authority and responsibility for it" (Fox, 2001:179). In general, she notices that indicating the source of knowledge establishes a sort of distance from the asserted proposition, while the absence of a knowledge source indication more strongly claims epistemic authorities or responsibility over the assertion.

Similar considerations can be found in the works by Heritage and Raymond (2005) and Cornillie and Gras (2020). The former underline that the use of evidentials has a mitigating effect in relation the claim of epistemic authority; the authors analyse an indirect evidential marker ("*sounds*") as a means for a K- speaker to soften the authority claimed, representing the proposition as resting upon the information supplied by a K+ interlocutor. Cornillie and Gras (2020) examine two Spanish expressions with an indirect evidential value ("*por lo visto*" / "*seemingly*" and "*al parecer*" / "*apparently*"). Using evidential discourse markers has a softening effect in relation to the socio-epistemic status of the speakers. When used in contexts of informative asymmetries, these markers work as positive face-saving devices (Goffman, 1967): when used by K- speakers in first position, evidential markers mitigate the epistemic authority in confirmation seeking, while when used by K+ speakers in second position they realize a softening and distancing effect. In contrast, in epistemically symmetric contexts, "the two evidential discourse markers under examination tend to receive a dissociating reading (sometimes an ironic one) and favor collaborative construction of knowledge" (Cornillie and Gras, 2020:201).

Other scholars, on the contrary, underline how evidentials can assume the function of claiming epistemic authority (Clift, 2006; Mushin, 2012; Grzech, 2020; 2021; Bergqvist

and Grzech, 2023).[73] Mushin's (2012) study on evidential strategies in Garrwa highlights those strategies' socio-epistemic functions in conversations. She asserts that, beside communicating the source of information, they also express the speaker's knowledge status deriving from the source as well as aspects of the speaker's epistemological stance and epistemic attitude. She notices how "speakers adopt evidential strategies in social interaction as part of an ongoing negotiation of authority and rights" (Mushin, 2012:271) which is a resource for social action. Mushin notes that the Garrwa language, similarly to other Australian Aboriginal languages, does not have a grammaticalized system of obligatory evidential markers, nor a particularly wide set of linguistic forms dedicated to evidential marking; nonetheless, it has some forms that have a clear recognized evidential value. The lack of evidential coding and the consequent scarcity in its use is, according to Mushin, due to socio-cultural aspects of the community observed. In many cases it is clear to the members "where the epistemic authority lies"; also, "much knowledge is publicly available and so evidence is not required when information is provided" (Mushin, 2012:288). In this language, evidentials are generally used in contexts where an assertion of epistemic status becomes relevant, especially when knowledge is in dispute (Mushin, 2012:280). In these cases, "people bring into play the establishment of epistemic authority" (Mushin, 2012:288), which is realized through the use of evidential strategies. Her analysis of direct evidentials in ordinary conversations suggests that when speakers use this kind of evidentiality, signalling that they know something because they witnessed it, they are not only taking a stance toward direct perceptual experience: they are, also, expressing a high certainty of the validity of the information and, moreover, claiming a high degree of epistemic authority over the information in contexts where the epistemic status is at stake.

Miecznikowski (2020) and Battaglia and Miecznikowski (2025a; 2025b) point out that evidentials can assume a "boosting" effect as they have a justificatory function, "which boosts the credibility of a standpoint and the speaker's commitment to it" (Battaglia and Miecznikowski, 2025b:204). Such *argumentative function* of evidentials is further discussed in the next section (§3.5). As they also notice, in line with other scholars (among others, Berglind Söderqvist 2020; Kotwica, 2020; Carretero et al., 2022) evidentials can

[73] In the next paragraphs I will discuss more in detail the works by Clift and Bergqvist and Grzech to outline the epistemic-related functions of reportatives and direct evidentials.

have either a mitigating or a boosting effect depending on the context and the single marker. It is therefore difficult to generalize and attribute one of the two effects to the entire category of evidentiality.

I now consider two specific classes, hearsay and direct, reviewing some considerations on their functions and effects in relation to epistemic stance taking.

3.4.1.1.1. Hearsay: boosting or mitigating?

Hearsay evidentials and the related phenomenon of reported speech have been often analysed as having a mitigating and distancing effect. Referring to someone else's words can allow speakers to strategically distance themselves from the content of the utterance (Hill and Irvine, 1993; Holt, 1996; Buttny, 1997; Battaglia and Miecznikowski, 2025a; 2025b). By using reporting strategies, speakers represent themselves as *animators* – employing the terms from Goffman (1981) – using these strategies as a "responsibility-framing device" to redirect agency (Johansen, 2011) and (partially) distancing themselves from the content creating an impression of objectivity (Holt, 1996; Buttny, 1997). This reduction of commitment is particularly useful in situations where direct assertion might be *face-threatening* (Goffman, 1967; Brown and Levinson, 1987) or controversial, as in institutional events (Buttny, 1997; Galatolo, 2007).

However, as highlighted above, some scholars underline how recurring to hearsay or reported speech can have a *boosting* effect when they provide evidence for the asserted proposition (Battaglia and Miecznikowski, 2025a; 2025b). Furthermore, speakers can use these devices to claim epistemic authority. Clift (2006) discusses uses of reported speech, and in particular instances of *fleeting* uses of reported speech, concluding that "reported speech is one of a variety of resources used by participants to index epistemic stance with regard to co-participants, providing a powerful – but not invincible – display of epistemic authority" (Clift, 2006:583). This interpretation aligns with some previous works on reported speech, such as Clark and Gerrig (1990) and Holt (1996), that point out how it can have, as providing evidence in support of a claim, a commitment strengthening effect rather than a mitigating one.

3.4.1.1.2. Direct evidentials as boosters of epistemic authority

As outlined at the beginning of §3.4.2.1, Mushin (2012) interprets (some instances of) direct evidentials in Garrwa as having the function of epistemic authority claiming. A

similar interpretation has been proposed by Bergqvist (2017) and Bergqvist and Grzech (2023). Both studies observe that mismatches can occur between speakers' evidential choices and the actual source of information. To explain such mismatches, they argue that evidentials should be (re-)conceptualized "in terms of their epistemic function: to claim or defer knowledge in an interactive setting" (Bergqvist and Grzech, 2023:12), as already discussed in §3.4.2. In particular, Bergqvist and Grzech (2023:13) claim that "[d]irect evidentials encode the speaker's claim of knowledge, not their sensory/perceptual experience". According to these views, direct evidentials can be analysed as having the function of claiming epistemic authority.

3.5. Evidentiality and argumentation

3.5.1. The argumentative nature of evidentials

As previously discussed (see §3.1.1), evidentiality is closely tied to the *justification* of asserted propositions. This justificatory function of evidentials has a close relation to the "boosting" effect mentioned above (§3.4.1.1.2). This functional orientation links it directly to the domain of *argumentation*, as both involve the speaker's responsibility to provide grounds for a claim.

Anderson (1986:274-275) defines evidentials as expressing "the kind of justification for a factual claim which is available to the person making that claim", while Faller (2012:287) emphasizes that evidentials encode "the speaker's grounds for making a speech act, which in the case of assertion corresponds to the speaker's source of information".

Similarly, Sbisà (2014:464) describes evidentiality as conveying "the speaker's grounds for making an assertive speech act". Providing the information source for an assertion, indeed, functions as a justification for the assertion itself, satisfying the justificatory commitment that constitutes a preparatory condition of assertions, in line also with Searle and Vanderveken (1985). A speaker when asserting a proposition has to (believe to) have enough grounds to make the assertion; often, this grounding in knowledge source is accommodated and taken for granted, and speakers do not communicate their information sources. In other cases, however, they do so by means of evidential strategies.

> When a speaker or author intends to give information to her audience, she can do so just by making assertions (that is, issuing declarative sentences without any modalisation or mitigation), but she may also do something to boost her competence and reliability, for example accompany her assertions with introductory or accessory comments aimed at displaying her credentials. Indeed, if her utterance is to be taken as a (serious) assertion and, therefore, as providing the audience with the very information it encodes, the speaker or author need have her credentials recognized. A speaker's credentials may concern the ways in which she has become competent to make the assertions she makes, including perceptual experience, its inferential elaboration, and reception of other people's testimony. Possession of appropriate credentials may be just taken for granted (a case of presupposition accommodation, one might say), or may be indicated in various ways or even explicitly spelled out. (Sbisà, 2014:472)

As Sbisà (2014:472) underlines, this is particularly relevant when speakers feel the need to prevent possible doubts against their assertions, strengthening their "credentials: "[a]ny doubt of the audience about the speaker's competence and overall reliability might lead to disbelief in what is said and disqualification of the speaker as an informant". In this sense, evidentials serve as credibility-boosting strategies, which reinforce the credentials of the speakers, authorizing them to make a certain assertion.

When speakers accompany an assertion with an evidential – here used to indicate any verbal strategy that reveals the information source of the speakers themselves – they can be said to be *arguing* for the acceptability of the assertion. Along the same line, Miecznikowski (2020:42-43, emphasis added) considers evidentiality as a special case of argumentation, arguing that "the functional domains of information source and argumentation overlap in utterances in which the former is *linguistically marked*, rather than entailed or implicated":

> Evidential frames should therefore be considered argumentative, I claim, when speakers signal information source distinctions explicitly, either by a full statement that directly functions as an argument or by more pragmaticalized constructions and markers. Within the Pragma-Dialectical framework, this entails that asserted propositions for which a speaker explicitly a certain type of source are some kind of standpoint and project some kind of critical

> discussion. In contrast, when speakers do not signal the type of their sources for an asserted or conjectured proposition explicitly, but hearers infer the nature of the source by evidential entailments or implicatures, the resulting evidential frames should not be considered argumentative.

Evidentials thus contribute to the argumentative structure of utterances by linking propositions to socially recognized sources of knowledge. The relevance of such links becomes especially clear when considering the felicity conditions of assertive speech acts. As Miecznikowski further notes, the presence of socially sanctioned information sources is essential for assertions, whose illocutionary point is to say something true about the world. Drawing on Fox (2001), she observes that even a minimal commitment to truth – such as in the form of hypothesis or conjecture – presupposes that the speaker is entitled to speak, by virtue of the knowledge they possess. Moreover, Miecznikowski (2020:45, emphasis added) points out that "[w]ithin a social community's folk epistemology (see Chafe and Nichols 1986), *what counts as knowledge depends on sources*, and the connection between to-be-asserted propositions and their information sources is therefore communicatively highly relevant".

3.5.1.1. Evidentials as arguments from reliable procedure of knowledge acquisition

Miecznikowski (2020) (see also Battaglia and Miecznikowski, 2025a; 2025b) proposes to analyse lexical evidential marking as encoding *arguments from a reliable procedure*. She suggests that evidentials are associated to different kind of argument schemes (e.g., direct evidentials to arguments from testimony; hearsay evidentials to arguments from authority), and that "all *loci* from authority could be reconsidered and renamed '*loci* from reliable procedures of knowledge acquisition'" (Miecznikowski, 2020:56).

The inferential configuration instantiated by this locus can be generally reconstructed as in the Y-structure below (Fig. 21).

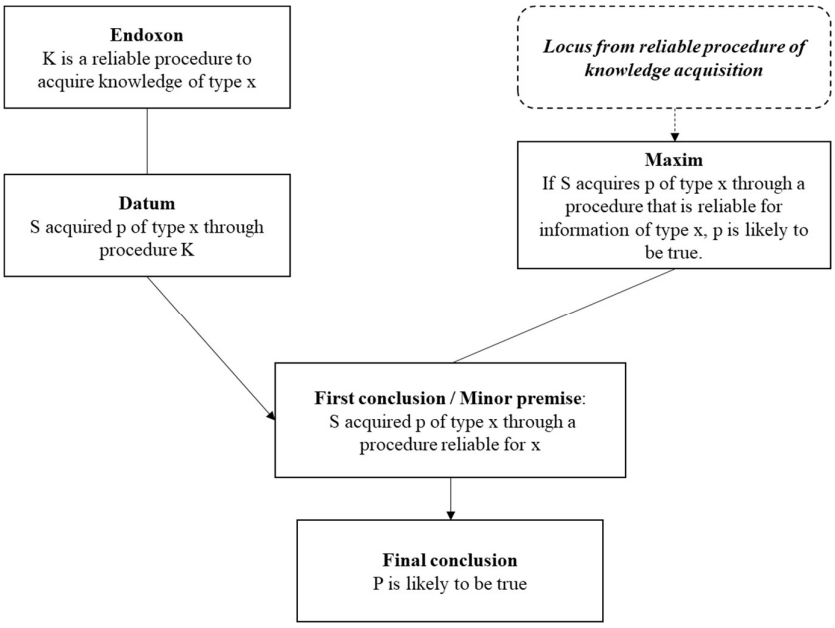


Figure 21. General reconstruction of an argument from *reliable procedure of knowledge acquisition*

The argument scheme *from reliable procedure of knowledge acquisition* constitutes an umbrella category encompassing the various argument schemes that may be instantiated by specific evidential frames. The latter remain however relevant as such for argumentative reconstruction, in order to be able to analyse particular inferential connections that supports a conclusion. In Ch. 8 (§8.2), I will examine how different types of evidentiality function argumentatively, verifying whether they can always be reconstructed as arguments from reliable procedures of knowledge acquisition, and comparing such reconstructions with those based on the specific inferential scheme they instantiate. I will show that the latter constitutes a specification of the former and is therefore more informative and more appropriate for argumentative analysis, as well as more useful for evaluative purposes.

As I will also show in Ch. 8, inferential evidentials constitute a particular case. Miecznikowski (2020) proposes that inferential frames function as arguments *from reliable inferential procedures*. She further argues that "[w]hen speakers combine evidential source categorizations with actually performed argumentation, the analysis […] must reconstruct two or more different arguments: an argument from a reliable inferential procedure of knowledge acquisition and one or more further arguments that exhibit salient parts of that inferential procedure" (Miecznikowski, 2020:57). I depart from this interpretation and contend that, when an inferential evidential occurs in a context where

both the premise and the conclusion are explicit, the evidential merely indicates the presence of an inferential connection between them and does not itself constitute an additional argument. As I will discuss more in detail in §8.2, evidentials can be rather analysed as *inconspicuous arguments*, i.e., *arguments* which "provide background information that is less salient cognitively and pragmatically than the standpoint in their scope and less salient than fully propositional arguments expressed as stand-alone utterance" (Miecznikowski and Battaglia, 2025b:208), or as *ancillary arguments* (Herman and Oswald, 2022), i.e., arguments "used to make the premise(s) for another argument acceptable" whose conclusion "(namely that the claim they support is true) is redundant". In such cases, because an explicit, fully fledged argumentative inference is already available, it is unnecessary to reconstruct the evidential contribution as an argument from reliable inferential procedure.

By contrast, when no explicit argumentative structure is present – specifically, when no explicit premise is provided – the inferential frame operates as an (incomplete) micro-argument based on the locus from reliable inferential procedure. As I will show in §8.2.3, in these cases the speaker conveys that (a) an inference has taken place, (b) this inference is the epistemic source on the basis of which she knows *p*, and therefore (c) the interlocutor should accept p because it is warranted by a reliable inferential procedure. In this sense, the use of an inferential evidential presupposes a set of implicit premises that the interlocutor is invited to accommodate. Since these premises are not accessible, it is not possible to reconstruct the specific underlying argumentative inference; only the more general argument from reliable inferential procedure can be recovered.

It clearly emerges that inferential evidentials presuppose a set of premises; particularly when any premise is lacking by employing an inferential the speaker signals that she inferred the conclusion on the basis of a set of premises *S* where $S=\{p_1,p_2, \ldots, p_n\}$. Even more, the speaker is signalling that $p_1 \ldots p_n$ are supposedly shared and thus intersubjectively accessible to the interlocutor.[74] Musi (2015) argues that inferential evidentials work as *phoric connectives* that connect discursive units – the premise and the conclusion. When the premise – that is an argument presupposed by the inferential-predicate – is missing,

[74] A similar observation is made by Rocci (2017: 259–260) in his discussion of modals, where he argues that "all linguistic expressions of modality (i.e. morphemes, lexemes or constructions) [function] as (at least) two-place relational predicates taking the prejacent and the conversational background as their arguments."

the interlocutor needs to "fill the gap" recurring to contextual information she has access to:

> As for any argument slot, the presuppositional constraints associated with the conversational background need either to be satisfied or accommodated in the common ground of the communicative interaction. In the case of context-dependent expressions such as the modals, these processes can acquire a special significance because no complete syntactic saturation of the conversational background argument place is possible. Hearers will seek to saturate the set of propositions required by the conversational background by recovering suitable propositions in the common ground of the exchange. (Rocci, 2017:260)

The speaker, by employing an inferential and leaving empty the space for the presupposed argument coinciding with the premise, leads the interlocutor to recover it from the conversational background[75].

3.5.2. Epistemic markers and evidentials as indicators of argumentation

Considering the functional affinity between evidentiality and argumentation outlined above, it is important to situate the present study within the broader research tradition that has explored this interface.

Previous research has extensively examined the argumentative functions of modal expressions – both epistemic and non-epistemic (Toulmin, 1958; Snoeck-Henkemans, 1992, 1997; Rocci, 2008a; 2008b; 2009; 2012; 2013; 2017; Miecznikowski, 2011) – as well as evidential markers (Musi, 2014; 2015; 2016; Musi and Rocci, 2016; 2017; Miecznikowski and Musi, 2015; Miecznikowski, 2018; 2020). Given that the present work focuses specifically on evidentials as indicators of argumentation, the following sections will review and discuss these contributions in order to establish the theoretical foundation for the analysis presented in the last part of this dissertation.

Section 3.5.2.1 begins with the exploration of the argumentative role of modals, particularly epistemic modals, as developed by Toulmin (1958), Snoeck-Henkemans (1992; 1997) and particularly by Rocci in numerous works. Section 3.5.2.2 then turns to studies that more directly address evidentials as argumentative indicators.

[75] This term comes from Kratzer's Relative Modality Theory; for the definition of conversational background, see §3.1.2.2.

Before turning to the presentation of relevant literature, it is important to briefly consider the methodological orientation of the studies discussed. These works typically adopt a semasiological approach: they begin with a semantic analysis of modal, evidential, or epistential expressions and demonstrate how these serve as indicators of inferential or justificatory relations within discourse. By contrast, the present study adopts a reversed perspective. Rather than starting from the semantics of these expressions to infer their argumentative function, it begins by identifying instances in which evidential and epistemic expressions are employed within argumentative moves. From this usage-based perspective, their semantic, pragmatic, and argumentative functions are subsequently analysed, with the aim of offering a more comprehensive and context-sensitive understanding of their role as argumentative indicators.

3.5.2.1. (Epistemic) modals as argumentative indicators

As discussed in Chapter 2 (§2.4.3), the notion of argumentative indicators was introduced within the framework of Pragma-Dialectical theory, which provides a systematic approach to identifying linguistic elements that signal argumentative moves. This theoretical account is further enriched by Rocci's work (2008; 2009; 2017), which – while partially aligning with the Pragma-Dialectical perspective – also develops original insights that extend and refine the concept.

To facilitate understanding, it is helpful to briefly recall the notion of *argumentative indicators* as introduced earlier. These are linguistic elements that "point to speech acts that are instrumental in the various stages of dispute resolution. Argumentative indicators may make it clear that argumentation has been advanced and how this argumentation is structured" (Houtlosser, 2002: 169-170).

The role of *modals* in argumentation was first explored by Stephen Toulmin in *The Uses of Argument* (1958)[76] and subsequently by Francisca Snoeck-Henkemans (1992; 1997). As Rocci (2017:105) notes, although modality in argumentation has been addressed in some subsequent studies – either specifically or as part of broader analyses – the overall number of works dedicated to this topic remains limited. Many works adopt Toulmin's terminology, particularly the notion of *modal qualifier* (e.g., Freeman, 1988; 1991; 2011; 2013; Pinto, 2007; Tseronis, 2009), or draw on his conceptual insights, such as the idea

[76] For a detailed review of Toulmin's analysis of modals, see Rocci (2017, Ch. 3).

that modals are not part of the propositional content of an utterance. However, few engage directly with Toulmin's full account of modality (Rocci, 2017: 105).

Toulmin's analysis of modals emphasizes the inherently argumentative nature of these markers, which serve to indicate the degree of strength or force of a claim. In his model, the *modal qualifier* explicitly signals "the degree of force which our data confer to our claim in virtue of our warrant" (Toulmin, 1958:101). In other words, modals signal the degree of "justificatory support" (Boye, 2006; 2010) required for that standpoint, and the speaker's level of commitment.

Toulmin identifies two key aspects of modals: an invariant *force*, which functions as an illocutionary marker of commitment toward the proposition, and variable, field-dependent *criteria*, which determine how this force is interpreted in different contexts. He proposes a correspondence between modal force and phases of argumentative discourse, drawing parallels between the semantic meaning of modal expressions and argumentative moves. For instance, expressions of possibility (e.g., '*may'* and '*possible'*) correspond to the act of "*putting forward a hypothesis as worth considering*", whereas expressions of impossibility (e.g., '*cannot'*) align with the move of "*ruling out a hypothesis*". This anticipates the Pragma-Dialectical approach (van Eemeren et al., 2007), which also posits systematic relations between linguistic expressions and argumentative moves.

One of Toulmin's most enduring insights concerns the context-dependency of modals. While their force remains stable across different contexts, the specific criteria that determine its interpretation vary depending on the context. To illustrate this point, Toulmin (1958) analyses *must* as a necessity modal associated with the speech act or argumentative move of drawing a conclusion:

(16) Under the circumstances, there is only one decision open to us; the child *must* be returned to the custody of its parent.

(17) Considering the dimensions of the sun, moon and earth and their relative positions at the time concerned, we see that the moon *must* be completely obscured at the moment.

In both cases, *must* conveys the same inferential force – that of drawing a conclusion – yet the criteria grounding the conclusion differ significantly. This underscores Toulmin's view that modals are not "one-place operators" but rather relational predicates, whose interpretation depends on contextual criteria. Such a relational and context-dependent

conception of modals is crucial to their analysis as indicators of argumentative relations, a point further elaborated in Rocci's work on modals.

Snoeck-Henkemans (1992; 1997) examines the argumentative import of modals, focusing on their role in reconstructing argumentative discourses. She argues that modals "can be used to indicate the extent to which the speaker is prepared to commit himself to the truth or acceptability of the propositional content of his standpoint" (1992:109). This, in turn, "enables the analyst to determine what degree of justificatory or refutatory potential the argumentation should have, in order to lend sufficient support to the standpoint" (Snoeck-Henkemans, 1992:113). In other words, the degree of commitment expressed by a modal sets the threshold of justificatory strength required. As Rocci (2017:185) succinctly puts it, "[b]y advancing a standpoint with a certain degree of confidence, the arguer *ipso facto* commits himself to providing evidence supporting the standpoint with a matching degree of force or weight". Thus, modals operating in this way serve as *indirect*[77] argumentative indicators (Rocci, 2008a:167; 2017:185).

Furthermore, according to Snoeck-Henkemans (1997:109), only epistemic modals can be regarded as argumentative indicators. This is because only this type of modals can express the speaker's degree of commitment to the truth or acceptability of a proposition, whereas other types of modality are embedded within the propositional content and thus cannot indicate the force or commitment related to the standpoint.

Expanding on the work of Toulmin and Snoeck-Henkemans, Rocci proposes a more comprehensive account grounded in two theoretical frameworks: *Congruity Theory* and the *Theory of Relative* Modality. Like Snoeck-Henkemans, he distinguishes epistemic from other modals in their argumentative function (Rocci, 2009: 209).

Drawing on *Congruity Theory* (see Ch. 2, §2.1.1), Rocci conceptualizes argumentation as a discourse relation represented by an abstract *pragmatic predicate* (or *connective predicate*) (Rocci, 2008b:586). This relational predicate minimally includes as arguments the speaker (Spk), the hearer (Hr) and an utterance (U_0) and can be formulated as follows: P(Spk, Hr, U_0). As explained by Rocci (2008b:586), these predicates are "relational also

[77] The distinction between *direct* and *indirect* argumentative indicators was introduced in Ch. 2 (§2.4.3). Rocci (2009:208) defines the former as "signs that, in some of their uses, *refer* to argumentative moves (e.g. the connective *because*)" and the latter as indicators "which refer to semantic or pragmatic categories *correlated* to argumentative moves".

in the sense that they are logically dependent from the content of another utterance", and therefore they include among their arguments also a (set of) anaphorically recoverable propositions (X) or utterances (U_{-n});they are *connective* predicates which can be formulated as C (Spk, Hr, X, U_{-n}, U_0).[78] The pragmatic / connective predicate of arguing can remain implicit, leaving it to the interlocutor to infer its presence and the required arguments. It can also be explicitly signaled by linguistic elements – argumentative indicators – that reveal argumentative relations between utterances:

> There are however a number of linguistic items whose business is to impose quite detailed constraints on the pragmatic predicates to be established; discourse connectives such as *therefore, but* or *in fact* are perhaps among the most obvious candidates to this role. […] modals behave similarly to connectives and impose constraints on the interpretation of argumentative pragmatic predicates at different levels. (Rocci, 2008b:586)

Rocci integrates Kratzer's (1977; 1981; 1991) *Theory of Relative Modality*, treating modals as relational elements expressing a relation (R) between a modalized proposition (p) and a contextually saturated set of background propositions (B). Modal markers thus encode invariant logical relations but require contextual input to saturate the background (Rocci, 2008b: 589). This approach reflects Toulmin's dual emphasis on modal invariance and context sensitivity. Modals, in this view, establish a relation between a proposition and a (possibly implicit) set of propositions.

Crucially, *epistemic* (or *doxastic*) modals differ from what Rocci terms *ontological* and *normative* (or *deontic*) *modals*[79] in that only the former can function as *direct* argumentative indicators. Epistemic modals relate a proposition to a speaker's belief set, as in:

> A (hypo-)thesis is entailed by or compatible with a relevant set of beliefs held by the speaker at the moment of utterance. (Rocci, 2009:216)

[78] This characteristic of discourse relations resembles what Toulmin defined as *context dependency*.

[79] This tripartite distinction made by Rocci is partially inspired on a tripartition already proposed in the literature (e.g., Kronning, 1996; 2001; Portner, 2009). See Rocci (2008b:591-592) and Rocci (2017:285-296) for a more detailed discussion on the relationship between these classifications.

By contrast, ontological modals refer to "facts of a certain kind in the actual world" (Rocci, 2009:215) and deontic modals to norms or values. Ontological modals take conversational backgrounds that can be formulated as follows:

> A possible state of affairs is entailed by or compatible with facts of such and such kind. (Rocci, 2009:216)

Normative modalities can have *deontic* or *anankastic* conversational backgrounds, which can be characterized respectively by these formulas (Rocci, 2009:216):

> An action is entailed by or compatible with norms or ideals of such and such kind.
>
> A social/institutional fact is entailed by or compatible with the set of social/ institutional facts of the relevant kind.

Although ontological and deontic modals do not directly signal premise-conclusion structures, they can serve as *indirect* indicators of argumentation by expressing content-level relations that underlie specific argumentation schemes. They can, in fact, "express relations between the modalized proposition and sets of facts, values or norms that are part of the content level of the argumentation and may or may not be exploited inferentially through specific argumentation schemes" and therefore "are indirect indicators of argumentation connected to the level of argumentation schemes, that is, to the level of the specific content relations on which the acts of argumentation rest" (Rocci, 2009:2019). As ontological modals specify "what is possible/necessary in view of a certain aspect of the structure of reality" (Rocci, 2009:2016), they can, for instance, indicate a causal relation between two facts.

(18) John cannot sing. His golden voice is gone for good. (permanent internal physical circumstances)

(19) John cannot sing. He has a sore throat. (temporary internal physical circumstances)

(20) John cannot sing. He's stuck in a traffic jam. (external physical circumstances)

(21) John cannot sing. The concert organizers rescinded the contract. (external social circumstances)

In examples (18)-(21), drawn from Rocci (2009) (original enumeration 22a-d), the second sentence specifies the ontological conversational background taken as argument

by the modal; at the same time, it represents an argument based on a cause-effect relation between the fact in the conversational background and the modalized proposition. The impossibility of John to sing – expressed by the modal *cannot* – is represented as caused by the different state of affairs presented in the second part of the sentences.

Similarly, deontic modals can indicate the type of argument scheme. They signal a relation between a proposition and a conversational background that is a *norm* or a *value* which specifies the 'reason' why the modalized proposition should (or not) take place, as exemplified in (22)-(25) (Rocci, 2009:217, original enumeration 23a-d),

(22) John must leave the country. The new immigration law was voted by the parliament. (what the application of the law entails)

(23) John must leave the country. So that he can live and continue the fight. (what the realization of the political goals entails)

(24) John must leave the country. So that he can provide for his family. (what the fulfilment of a goal-moral obligation entails)

(25) John: "I must leave the country. I cannot stand the vulgarity of the times." (what the satisfaction of the aesthetic preferences entails)

As Rocci (2009:218) states, "[b]ecause of their conversational background, deontic-practical modalities can be indirect indicators that an argumentation based on practical reasoning is being put forth. But this is not necessarily so".

In contrast, epistemic modals mark inferential relations between propositions and evidence: "a relationship between a proposition and the evidence available to the speaker at the moment of utterance" (Rocci, 2009: 183). When used argumentatively, the epistemic modal signals both the speaker's inferential path and an invitation for the hearer to follow that same path: the speaker "shows her own chain of inference, and, by showing it, offers to the hearer reasons to reach the same conclusions. If the speaker does present such evidence to the hearer or points to it in some way, then the epistemically modalized utterance becomes an act of argumentation in the strictest sense" (Rocci, 2009:222). Rocci (2009: 223) emphasizes that epistemic modals not only mark degrees of commitment (as in Snoeck-Henkemans) but also function analogously to argumentative connectives like *therefore* and *because*.

This is not the case for ontological or deontic modals: the relation expressed does not follow an inferential argumentative path. For example, (9) does not assert that *p* follows from *B* as an inference but rather that *B* is the reason *p* should occur.

Two final remarks from Rocci deserve emphasis. First, while epistemic modals *can* signal that the proposed inference mirrors the speaker's own, this is not always the case. Rocci distinguishes between *inferential evidentiality* and *argumentation*:

> Argumentation proposes an inference to the addressee, while inferential evidentiality signals an inference of the speaker as the source of knowledge of the utterance. The two may well go together [...] but we can also have evidentiality without argumentation (when the private premises of the speaker are not made available to the hearer) and argumentation without evidentiality. (Rocci, 2008:588)

In the last case, argumentation without evidentiality, the dynamic between the argumentative inference and the epistemic consequence resembles what happens with ontological and deontic modals: the speaker proposes an inference to justify the conclusion, but the inference is not the source of knowledge, and the conclusion-proposition is not concluded because of the inference. Rocci illustrates this with an "alibi" example where the speaker proposes an inference without signalling it as the source of knowledge: "Suppose I say to the investigators: *Wednesday I was in Milan giving a talk. I couldn't possibly rob a bank in Lugano on that day.* Here I am certainly trying to get the hearer to infer my innocence, but we cannot say that I am signaling that the source of *my own knowledge* of not having robbed a bank in Lugano is inferential!" (Rocci, 2008:588).

Lastly, Rocci contrasts modals like *must* or *may* with mental predicates such as *I think* or *I believe*. While the former "unequivocally points anaphorically to the preceding sentence as the manifestation of the argument supporting the standpoint in the modalized sentence", the latter are "more fuzzy and less direct in pointing to the evidence" (Rocci, 2009:222). Epistemic context-dependent modals make the inference available to the interlocutor, while a mental state predicate "puts onstage is the *subjective* commitment of the speaker, rather than the inferential relation" (Rocci, 2009:222).[80] The former are thus

[80] Musi (2014) identifies this difference as well, highlighting how inferential readings of appearance verbs, differently from *verba putandi* (verbs of thought), always presuppose evidence which works as inferential premises. She notes that the use of an inferential appearance verb next to "an explicit declaration of the lack of sources of information on the part of the speaker, though acceptable, would in fact sound weird" (Musi, 2014:426):

?I do not know why, but the painting appears to be incomplete

I do not know why, but I think the painting is incomplete

Whilst the first sentence sounds odd, the second is entirely satisfactory.

intersubjective in Nuyts' terms (see §3.4.1.4) and do not necessarily point to an inferential path that is available to the interlocutor.

3.5.2.2. Evidentials as argumentative indicators

As noted at the beginning of this section, evidentiality and argumentation are closely intertwined. A growing body of literature has examined the role of evidential markers as argumentative indicators. Much of this research has primarily focused on verbs of appearance with inferential evidential value, often limited to the *micro-argumentative level*.

Musi (2014), for instance, analyses the Italian verb *apparire* ('to appear) demonstrating that when it acquires an evidential-epistemic function, it signals a premise-conclusion relationship and marks a defeasible argument based on a process of classification. Similarly, Miecznikowski and Musi (2015) examine the verb *sembrare* ('to seem'), arguing that when employed as an inferential evidential, it serves as an indicator of inferential links between a premise and a conclusion, consistent with symptomatic argumentation (van Eemeren and Grootendorst, 1992: 98). In this context, verbs of appearance functioning as inferential evidentials operate as argumentative indicators at the micro-level: they introduce conclusions and explicitly guide the inference from a given premise, thereby constraining the type of argument schemes that can be used. In doing so, these markers, as Musi (2016: 2) observes, "instruct the interlocutor on how to recover the speaker's premises in order to consciously reach agreement or disagreement".

Extending this perspective, Musi and Rocci (2016; 2017) investigate evidential adverbs such as *evidently* / *evidentemente* and *obviously* / *ovviamente*, concluding that these too function as argumentative indicators. Like appearance verbs, these adverbs signal a premise-conclusion relationship between the proposition they modify and a contextually recoverable premise, which may be either explicitly stated or presupposed. While their analysis primarily addresses the micro-argumentative level, the authors also suggest that *evidently* and *evidentemente* can serve as indicators at the macro-structural level, where they mark standpoints in argumentative discourse.

This dual role is further developed in Musi (2016), who distinguishes the argumentative functions of direct and indirect evidentials. She analyses all evidentials as micro-arguments – functionally similar to Miecznikowski's (2020) arguments from reliable procedure of knowledge acquisition" (see §3.5.1. However, their roles diverge at the

macro-argumentative level. Direct evidentials frame the propositions they have scope on as objectively true, functioning as "strategies of objectification" (Musi, 2016:9). The descriptions they introduced are used argumentatively as unassailable premises. In contrast, inferential and reportative evidentials do not introduce empirically verifiable statements but rather "evaluations and interpretations whose truth cannot be objectively measured" (Musi, 2016: 12). Because they presuppose a set of premises and indicate a premise-conclusion relation, they typically introduce conclusions – which may serve as either global or local standpoints. In the latter case, such conclusions themselves function as non-basic assailable premises within a broader argumentative structure.

In conclusion, the reviewed studies demonstrate that evidential markers and strategies can serve as argumentative indicators. As discussed in §3.5.1.1, Miecznikowski (2020:53) argues that evidentials should be regarded as fulfilling an argumentative function when speakers explicitly signal distinctions in information source – whether through fully articulated statements that directly serve as arguments or through more pragmaticalized constructions and markers. Within the Pragma-Dialectical framework, this implies that propositions accompanied by an explicit indication of their source constitute a form of standpoint and thereby initiate or anticipate a critical discussion. Conversely, when the source of an asserted or conjectured proposition is not explicitly marked by the speaker but is instead inferred by the hearer through evidential entailments or implicatures, such evidential framing should not be considered argumentative in nature.

In this context, evidentials operate as indicators at the micro-argumentative level, by functioning as arguments from reliable procedure of knowledge acquisition. By signalling the source of knowledge, they enhance the acceptability of the proposition they have scope on. Inferential evidentials point to the inferential relation between the proposition they introduce – the conclusion – and contextually recoverable premises. Direct evidentials present the proposition in their scope as factual and indisputable. Reportative evidentials, which indicate that the information originates from an external source, are particularly nuanced. Their presence does not necessarily frame the proposition as the speaker's conclusion or indicate the speaker's commitment to its truth – this can be the case when the reported source is an authority cited in support of the speaker's standpoint. However, even when speakers subsequently distance themselves from the reported content and reject it, attributing the proposition to another party frames it as someone else's standpoint. As

such, the proposition may be treated as *prima facie* acceptable and considered a non-monotonic conclusion within the argumentative structure.[81]

At the macro-argumentative level, both Miecznikowski (2020) and Musi (2016) suggest that propositions introduced by evidentials generally function as standpoints. Musi (2016) further notes that, particularly in the case of inferential evidentials, these propositions can also serve as local standpoints, which may themselves function as premises in subsequent lines of reasoning (see also Battaglia and Miecznikowski, 2025b).

[81] For a discussion on the *prima facie* acceptability of conceded arguments, see Rocci and Lucchini (2025).

4. Financial communication and Earnings conference calls

This chapter presents the context of finance and financial communication, illustrating its key dynamics. After clarifying the role of communication in finance (§4.1) and its two main goals – the *informational* (§4.1.1) and the *rhetorical* (§4.1.2) objectives – Section §4.2 offers a more detailed analysis of the financial context from a communicative perspective, based on the contextual model proposed by Rigotti and Rocci (2006) (§4.2.1). Finance is then characterized as an *interaction field* (§4.2.2), with particular emphasis on two aspects: its nature as a *macro-discursive system* (§4.2.2.1) and its *polylogical* dimension (§4.2.2.2). Section §4.3 turns to an aspect that is fundamental for this dissertation, namely the role of argumentation in financial communication. Importantly, I seek to emphasize that argumentation – as discussed in Chapters 1 and 2 – is not merely a discourse genre or a text type, and that discussing its role in finance does not simply amount to identifying argumentative texts or passages within discourse. Rather, argumentation is approached here as a more pervasive practice and perspective; accordingly, I argue that financial communication is inherently argumentative.

The final part of the chapter (§4.4) presents the specific activity type investigated in this dissertation, namely the communicative event of *earnings conference calls*. After discussing ECCs as a *discursive genre* in §4.4.1, where their discursive features, organizational structure, and interactional characteristics are defined, §4.4.2 turns to their characterization as an *argumentative activity type*. In §4.4.2.1, I first clarify – again on the basis of the *model of communication context* (Rigotti and Rocci, 2006) – the interaction field and interaction scheme of ECCs in order to explain how they function as an *activity type*. Section §4.4.2.2 then examines their argumentative nature, highlighting both their inherent argumentative function and the possibility of advancing a broadly argumentative interpretation of ECCs. Sections §4.4.2.3 and §4.4.2.4 focus on the argumentative roles assumed by participants and on how these events can be analysed both as *rhetorical triangles* and as interactions with a *polylogical* dimension.

Finally, §4.4.3 discusses participants' goals and the rhetorical means through which these goals are realized. Section §4.4.3.1 is devoted to a comparison between earnings calls and political press conferences, primarily with the aim of identifying similarities and differences between financial analysts and political journalists in order to clarify the former's incentives and strategies more precisely. Importantly, this section also examines

two key discursive strategies employed by both analysts and journalists that will be central to the analysis of the results: *prefaced questions* (§4.4.3.1.1) and *accusations of inconsistency* (§4.4.3.1.2). Finally, §4.4.4 highlights the relevance of knowledge management in earnings calls, a pivotal dimension for the present study.

4.1. Communicating in finance: nature and dynamics of financial communication

Finance is a broad term encompassing the study, management, and movement of money, investments, and other financial instruments. As a discipline, it can be defined as the study of how individuals, businesses, and governments allocate and manage money, assets, and investments over time. We can conceptualize finance also as a "sphere of human activity" (Bakhtin 1986:62; Rocci, 2013b) where different actors involved engage in different activities concerned with the allocation of surplus monetary resources toward investments with the ultimate goal of *value creation*. This value creation process represents the central aim of finance and is realized through the dynamic interplay between two primary agents: *entrepreneurs* and *investors*, respectively described by Palmieri and Palmieri (2012) as *deficit units* and *surplus units*. Entrepreneurs contribute ideas, innovation and business projects but often lack the capital necessary to bring these to fruition. Conversely, investors possess the capital but require viable business projects to enhance its value.

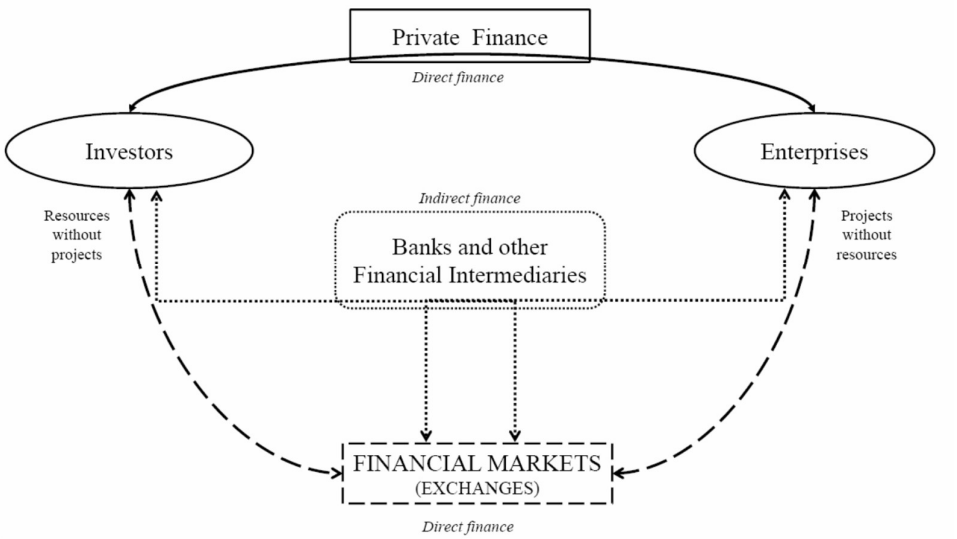


Figure 22. The financial market (Palmieri and Palmieri, 2012)

As illustrated by the model proposed by Palmieri and Palmieri (2012) in Fig. 22, the interaction between these two agents can occur through various mechanisms: *private direct finance*, *indirect finance* through intermediaries, and direct institutional finance via *financial markets*. Private direct finance encompasses non-institutionalized, interpersonal funding arrangements, such as angel investing or private equity, where capital flows directly from investor to entrepreneur without the mediation of formal institutions. By contrast, financial markets are structured, institutionalized environments where exchanges between investors and entrepreneurs are facilitated, often with the involvement of intermediaries. Financial intermediaries, such as banks, play a pivotal role in this system, mediating the flow of capital in cases where direct finance is impractical or inefficient. These intermediaries not only provide the infrastructure for transactions but also help mitigate risks, manage information asymmetries, and ensure the stability of financial exchanges.[82]

Fundamentally, finance is rooted in these encounters between economic agents and is thus inherently *interaction based*. These encounters are not purely transactional but are embedded in communicative processes that are essential to align their interests and achieve their objectives. In this sense, the collaborative nature of these interactions becomes evident, and they can be effectively characterized using Clark's (1996) concept of *joint activities*. Investors and entrepreneurs engage in dialogues to exchange information, negotiate terms, and establish mutual understanding, all of which are indispensable to achieving their respective objectives.

Palmieri and Palmieri (2012) further underscore the centrality of communication in finance, arguing that it is not merely a tool or byproduct of financial activities but a constitutive dimension of the field itself. Communication underpins the flow of information, reduces uncertainty, and facilitates trust-building, which are essential for fostering sustainable financial relationships. Thus, the role of communication extends beyond operational efficiency to become a fundamental driver of the value creation process inherent in finance. In essence, finance can be viewed as a communicative enterprise, where economic value is generated through the alignment of diverse goals and the exchange of critical information. This perspective highlights the interdependence of

[82] The specific role of intermediaries is illustrated in detailed in §4.1.1.

economic and communicative activities, reinforcing the notion that finance is as much about relationships and trust as it is about numbers and returns.[83]

4.1.1. Financial communication and the informational objective

Finance primarily revolves around *investment decisions*, as investors must constantly determine how to allocate their capital effectively. Making sound investment choices requires an accurate evaluation of businesses, which enables investors to mitigate risks and maximize potential returns (Healy and Palepu, 2001; Barone Adesi, 2002). This *investment decision problem* (Palmieri and Palmieri, 2012) is complicated by two key challenges: the inherent uncertainty of financial investments (Palmieri and Palmieri, 2012), which concern future returns and are influenced by unpredictable economic, market, and firm-specific factors, and a structural *information asymmetry* between investors and entrepreneurs (Healy and Palepu, 2001). This asymmetry arises because entrepreneurs typically possess more detailed knowledge about their business operations, prospects, and risks than external investors do, creating a disparity in the quality and quantity of available information.

The *efficient market hypothesis*, first articulated in the early 20th century and formalized in the mid-1960s, asserts that an efficient market is one "in which prices always fully reflect available information" (Fama, 1970:383). On a similar vein, George Akerlof's seminal work *The Market for "Lemons"* (1970) discusses the other side of it, illustrating how persistent information asymmetry can severely disrupt capital market efficiency by leading to adverse selection. In Akerlof's framework, when buyers (investors) cannot distinguish between high-quality and low-quality assets, they may undervalue high-quality assets or exit the market altogether. This highlights the critical importance of transparent and reliable information for fostering trust and sustaining market functionality.

The need for information that stems from these asymmetries constitutes the fundamental reason behind the numerous communicative activities that occur in finance. As Healy and Palepu explain, "the demand for financial reporting and disclosure arises

[83] It has been noted that even non communicative activities can have a communicative aspect, inasmuch they *mean something*: "Interestingly, and strikingly, financial operations, like stock repurchases, dividend policies, acquisitions paid in shares, may convey information, working, thus, as *signals*; for this reason, they are often considered as communicative." (Palmieri and Palmieri, 2012:11). In the present work, I do not focus on this dimension which is, however, quite interesting when dealing with communicative aspects of finance.

from *information asymmetries* and *agency conflicts* between managers and outside investors" (Healy and Palepu, 2001:406, emphasis added). These disclosures serve to reduce informational disparities, enabling investors to make more informed decisions. Moreover, effective information disclosure enhances market liquidity and allocative efficiency by ensuring that asset prices reflect their intrinsic value more accurately. Thus, addressing informational asymmetries is not merely a peripheral concern in finance; it is central to the stability and functionality of modern capital markets. As Jenks observes,

> (...) the investor is constantly faced with the difficult problem of deciding whether or not his money is in the best place to serve his purposes. It is apparent, therefore, that every stockholder has a continuing investment problem. He should and usually does consult with someone in a bank or trust company or the investment business about his holdings. It follows that one of the best ways for corporations to gain and keep stockholders' goodwill is to set up businesslike procedures that will enable stockholders through their investment advisers *to obtain pertinent information on a continuing basis* about the companies they are directly interested in. (Jenks, 1948:34, emphasis added)

The centrality of communication in finance is, thus, primarily driven by the exigence of meeting the ever-present demand for information. In fact, financial markets have been described as *communication systems* (Palmieri and Palmieri, 2012; Lusztig et al., 1994), with their very existence is justified by this need for information (Mishkin and Eakins, 2008).

As noticed above, the investing community's demand for information is addressed through companies' communication and disclosures, categorized broadly as *financial disclosures*, which refer to the public release of economic data (Crawford-Camiciottoli, 2010; Gibbins et al., 1990). Financial disclosures, which include financial statements, earnings reports, and other formal communication mechanisms, are a subset of the broader class of *reporting genres* (Bhatia, 2005). As Crawford-Camiciottoli (2010) underlines, financial reporting genres are characterized by a high level of *intertextuality* and *interdiscursivity*. Being "socially situated and closely linked to aims and values of the participants", they can "be contextualized through references to other texts" (Crawford-

Camiciottoli, 2010:346)[84]. Financial disclosures can be categorized as either *mandatory* and *voluntary*. Mandatory disclosures include documents that market regulators require companies to release publicly. For example, the Securities and Exchange Commission (SEC) in the United States mandates the publication of quarterly and annual reports detailing financial results. [85]

> The laws and rules that govern the securities industry in the United States derive from a simple and straightforward concept: all investors, whether large institutions or private individuals, should have access to certain basic facts about an investment prior to buying it, and so long as they hold it. To achieve this, the SEC requires public companies to disclose meaningful financial and other information to the public. […] Only through the steady flow of timely, comprehensive, and accurate information can people make sound investment decisions. (SEC 2003).

As Healy and Palepu (2001) notice, these regulatory systems help addressing the informational problem, aiming to reduce informational asymmetries not only between companies and investors but also among various stakeholders. Underpinning these rules is the principle articulated in the efficient market hypothesis: access to information is essential for market participants to make "sound investment decisions".

Beyond mandatory disclosures, companies can also provide additional, non-compulsory disclosures, such as letters to investors, press releases, and earnings conference calls. These voluntary disclosures have become increasingly common "as companies seek to engage stakeholders more proactively, enhance transparency, and

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[84] The complex network of text types and genres that pertain to the financial field is furtherly detailed in §2.2.1.

[85] As stated by the SEC itself, "The SEC's mission is to protect investors; maintain *fair*, orderly, and *efficient* markets; and facilitate capital formation" (emphasis added). See https://www.sec.gov/about. In Europe, this task is carried out by the European Union, and in particular the guidelines provided in the Transparency Directive (2004/109/EC; 2013/50/EU) that seek to ensure a consistent and fair information disclosure:

(1) […] The disclosure of accurate, comprehensive and timely information about security issuers builds sustained investor confidence and allows an informed assessment of their business performance and assets. This enhances both investor protection and market efficiency.

(2) (2) To that end, security issuers should ensure appropriate transparency for investors through a regular flow of information. To the same end, shareholders, or natural persons or legal entities holding voting rights or financial instruments that result in an entitlement to acquire existing shares with voting rights, should also inform issuers of the acquisition of or other changes in major holdings in companies so that the latter are in a position to keep the public informed.

rebuild trust within the global financial community" (Crawford-Camiciottoli, 2010:346). As Koskela and Crawford-Camiciottoli (2020) emphasize, financial disclosure plays a pivotal role in the institutional relationship between companies and investors, often referred to as *investor relations*[86]. Effective communication and information exchange are regarded as "crucial for the successful management of stakeholder support" (Koskela and Crawford-Camiciottoli, 2020: 59). It is widely acknowledged that consistent and accurate information disclosure fosters confidence among shareholders and potential investors, whereas poor disclosure has detrimental effects on firms:

> "It is reported to be a good company, but it is not easy to get up-to-date information on it. Therefore, it probably would be better for you to buy the security of another company instead which can be followed closely." Therefore, a close relationship with the financial community, set up on a practical day-to-day basis, not only contributes to a better understanding between the company and present stockholders but also may attract other potential investors who may become stockholders in the future. (Jenks, 1948:37)

To improve the quality of financial communication – and consequently enhance the decision-making processes central to financial interactions – various external entities often serve as *information intermediaries* (Healy and Palepu, 2001; Palmieri and Palmieri, 2012).

Leveraging their expertise, these intermediaries help reduce informational asymmetries between companies and investors, as well as among different investor groups, while presenting themselves as more impartial and, therefore, more credible sources of information.

Palmieri and Palmieri (2012) categorize intermediaries in financial markets into three distinct groups: *financial intermediaries*, *analysts* and *rating agencies*, and *financial media*. The first group, *financial intermediaries*, includes institutions such as banks, which

[86] Investor relations is defined by the National Investor Relations Institute (NIRI) as "a strategic management responsibility that integrates finance, communication, marketing and securities law compliance to enable the most effective two-way communication between a company, the financial community, and other constituencies, which ultimately contributes to a company's securities achieving fair valuation." (Laskin, 2021). Previously, Marston (1996) defined investor relations as "the link between a company and the financial community, providing information to help the financial community and investing public evaluate a company" (Marston, 1996:447).

play a central role in facilitating interactions between investors and entrepreneurs, as discussed in §4.1. These intermediaries are essential not only for enabling financial transactions but also for providing advisory services to both investors and companies.

Analysts and *rating agencies* serve primarily as evaluators of firms' financial health. Although both undertake the responsibility of assessing businesses, their roles differ in scope and purpose: while analysts evaluate company performance trying to predict future outcomes, rating agencies focus on assessing the stability of companies, specifically their ability to meet debt obligations. Financial analysts are tasked with evaluating companies to produce investment recommendations, offering guidance to investors on decisions such as whether to buy, sell, or hold assets, as well as setting stock price targets. Since investors often lack the specialized knowledge or expertise needed to interpret complex financial data, analysts play a critical role in translating this information into actionable insights about firms' prospects. Research has shown that such forecasts provide significant value to investors (Givoly and Lakonishok, 1980) and may serve as more accurate proxies for market expectations compared to forecasts generated by time-series models (Fried and Givoly, 1982).

The third category, *financial media*, plays an important role in reducing informational asymmetries within the market, also influencing the investing community, and shaping

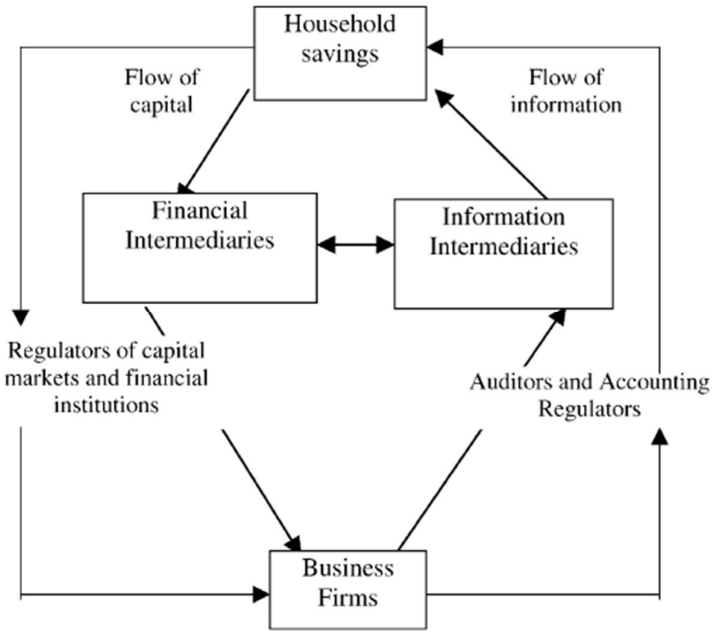


Figure 23. Financial and information flows in a capital market economy (Healy and Palepu, 2001)

market dynamics. In addition to publishing corporate documents and messages, such as press releases or official statements (Jacobs, 1999), financial media report on relevant events and offer their own interpretations. Media outlets have the power to frame events, offering specific perspectives that can shape public discourse and influence market behaviour by setting the agenda on issues of importance.

Moreover, information intermediaries play a crucial role in monitoring and overseeing the actions of management: "information intermediaries, such as financial analysts and rating agencies, engage in private information production to uncover any manager misuse of firm resources" (Healy and Palepu, 2001:410). This oversight function arises from the *agency relationship* that characterizes the interaction between investors and entrepreneurs, as conceptualized in foundational works by Ross (1973) and Jensen and Meckling (1976). Within this relationship, investors, who act as *principals*, entrust their capital to managers, who serve as *agents* responsible for managing the business. While agents are expected to act in the best interests of their principals, there is an inherent risk of conflict, as managers may prioritize their own interests over those of investors. As Healy and Palepu (2001:409) point out, "self-interested entrepreneur has an incentive to make decisions that expropriate savers' funds." This divergence of interests leads to what is widely known as the *agency problem*, a core issue in corporate governance and finance. The agency problem underscores the need for mechanisms to monitor and control the actions of managers to ensure alignment with the goals of investors. Information intermediaries, by producing independent evaluations and insights, serve as a critical counterbalance, reducing information asymmetry and holding managers accountable to their principals.

4.1.2. The rhetorical objective: financial communication as a rhetorical practice

Numerous studies in the field have noted that while the primary purpose of financial releases is to provide information, as detailed in the paragraph above, financial communication is inherently *strategic* and *rhetorical* (Cosgel and Klamer, 1990; Lev, 1992; 2012; McCloskey and Klamer, 1995; Crawford-Camiciottoli, 2010; 2013; Palmieri, 2018; Koskela and Crawford-Camiciottoli, 2020). Thus, financial communication serves a dual purpose: while it provides essential information (the informational objective sketched in the previous paragraph), it also employs rhetorical strategies to foster confidence and attract investment.

To understand what it means to describe financial communication as rhetorical, it is useful to first clarify what it means for a discourse to be rhetorical. Lloyd Bitzer, American rhetorician of the 20th century, theorized in his 1968 work *The Rhetorical Situation* that rhetorical discourse is not defined by formal features (like particular language or structures, or the use of rhetorical figures) or persuasive effect (alone). Instead, Bitzer argues, "a speech will be rhetorical when it is a response to the kind of situation which is rhetorical" (Bitzer, 1968:9). According to this perspective, rhetorical discourse is *called into existence* as a response to a *rhetorical situation*, that is, a situation characterized by a *rhetorical exigence*. Bitzer defines exigence as a problem requiring resolution, "an imperfection marked by an urgency" (Bitzer, 1968:6). A rhetorical exigence, specifically, is a problem that can be addressed through rhetoric: "an exigence is rhetorical when it is capable of positive modification and when positive modification requires discourse or can be assisted by discourse" (Bitzer, 1968:6). This framework is grounded in a pragmatic view of language and an understanding of reality – particularly social reality – as composed of situations that demand responses.

> In the best of all possible worlds, there would be communication perhaps, but no rhetoric – since exigences would not arise. In our real world, however, rhetorical exigences abound; the world really invites change – change conceived and effected by human agents who quite properly address a mediating audience. (Bitzer, 1968:13)

In addition to the exigence, two other factors are essential in defining a rhetorical situation: the *audience*, which is addressed to bring about the desired change, and a set of *constraints*, encompassing all the elements and factors that influence how the discourse responds to the exigence and how the audience reacts to the discourse.

According to Bitzer, rhetorical situations invite for discourses that are *fitting*; in essence, the situation itself prescribes the type of response appropriate to the specific exigence, specifying the kind of discourse suited to address the prevailing issue. Bitzer defines rhetoric as "a mode of altering reality, […] by the creation of discourse which changes reality through the mediation of thought and action" (Bitzer, 1968:3). Clearly, this does not imply that a fitting rhetorical discourse will inevitably achieve the desired outcome of change. However, this perspective underscores that an appropriate rhetorical discourse – one that adequately addresses the exigence – represents the most effective means of resolving the problem that constitutes the exigence.

The previous paragraphs largely showed that communication is a central and intrinsic aspect of finance, and it is inherently related to the already mentioned investment decision problem, which constitutes the general exigence of finance. The decision-making challenge implicates the need for information, due to the informative asymmetry discussed above, which is already something solved through communication (see § 4.1).

Moreover, both investors and entrepreneurs have specific goals which can be described in terms of rhetorical exigencies. Specifically, investors have the need to identifying the most promising opportunities to allocate capital effectively; conversely, for enterprises, the objective is to *persuade* investors to trust them, positively assess their business prospects, and ultimately commit to investing (Palmieri, 2018):

> "[…] listed companies and, in general, entrepreneurs (i.e., those who need funds from investors) are not merely neutral information providers. They have a compelling interest in persuading investors to positively assess their behavior and, ultimately, to invest in their business projects rather than in those proposed by their competitors. Financial communication is, therefore, inherently rhetorical" (Palmieri, 2018:46).

Evidently, this persuasive goal is a rhetorical exigence, as it is fulfilled through (rhetorical) discourse). Persuasion is thus a defining trait of entrepreneurial communication, as it is emphasized as well in the *manager-as-rhetor* view (Green, 2004), originating in management studies. Moreover, as will be discussed further in the next paragraphs, not only companies and entrepreneurs have persuasive goals: financial analysts (and also financial media) have – at least partially – a persuasive incentive.

4.2. The context of financial communication

In this section, I aim to conceptualize finance as a communication context by applying a model developed by Rigotti and Rocci (2006). This theoretical and analytical framework provides a structured approach to identifying the key components of the context of a communicative event.

4.2.1. A model of communication context

The significance of context in communication has been widely acknowledged within linguistic studies, especially following the "pragmatic turn" in the 20th century, which affected the humanities, particularly language and communication studies. As Bruhn Jensen (2002:38) observes, "as suggested by the trajectory of twentieth century philosophy, there has been a noticeable interdisciplinary shift from an understanding of language (and media) as a formal structure, to an emphasis on its social uses". The relevance of context in communication and its analysis can be seen as rooted in the understanding of language as a form of social action. As Rigotti and Rocci (2006) emphasize, a communicative event – being this a simple utterance or a rather complex text – maintains a bidirectional and mutual relationship with its context, in terms of *context dependence* and *context change potential*. On the one hand, the context plays a critical role in shaping a discourse, determining the proper realization of an utterance or a text and its accurate interpretation (context dependence). Simultaneously, a verbal contribution actively shapes the context by updating the shared knowledge, or "common ground" (Stalnaker, 1973; Clark, 1996), among participants (context change potential). Central to this dynamic is the notion of *commitment* (Searle, 1969). Rigotti and Rocci extend Stalnaker's analysis of common ground by proposing that the primary effect of an utterance on its context is the modification of mutual commitments. In their framework, the contextual shift brought about by an utterance corresponds to an update in the shared commitments between interlocutors, shaping the ongoing communicative interaction.

The model proposed by Rigotti and Rocci is a model "of the *social* context of communication; as it the social context that constrains the performance of illocutionary acts and that is directly affected by them" (Rigotti and Rocci, 2006:171).[87] They distinguish two components of the social context: the *institutionalized* and the *interpersonal dimension* (Fig. 24).

[87] This model has been adopted in numerous studies of argumentation in context to analyse a variety of activity types, including, but not limited to, doctor-patient interactions (Bigi, 2016), advertising (Pollaroli and Rocci 2015), newsroom meetings (Zampa, 2017), dispute mediation (Greco Morasso, 2011), corporate mergers (Palmieri, 2014).

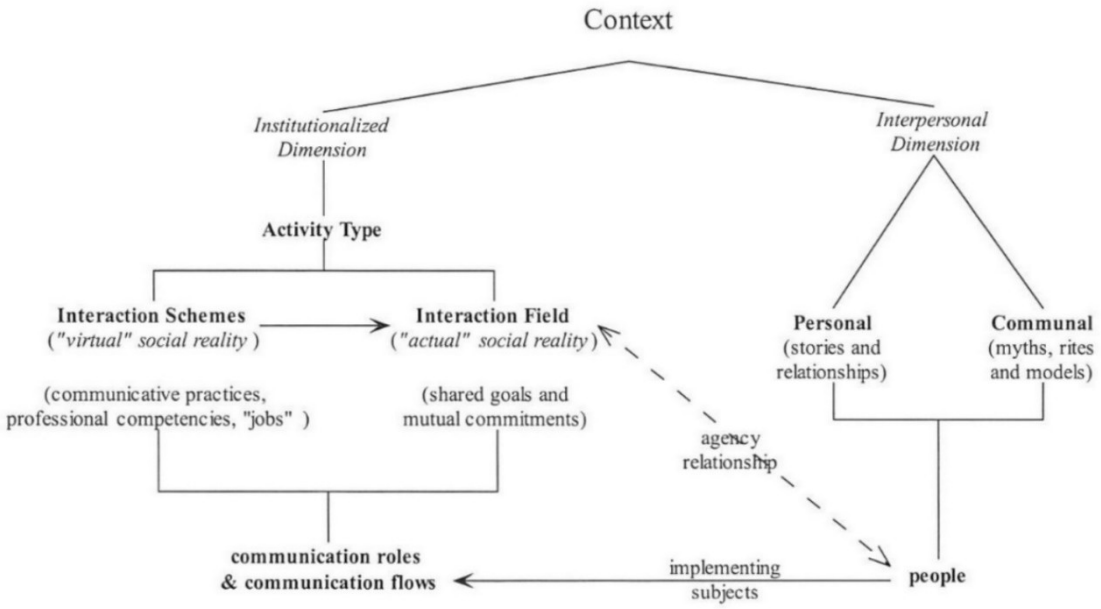


Figure 24. The communication context (Rigotti and Rocci, 2006)

Within the institutionalized dimension of context, the key concept is that of *activity type*. Stephen Levinson introduced this notion, drawing on but also diverging from earlier ethnolinguistic and sociolinguistic concepts such as "speech event" or "episode." An activity type can be defined as "a fuzzy category whose focal members are goal-defined, socially constituted, bounded events with constraints on participants, setting, and so on, but above all on the kinds of allowable contributions" (Levinson, 1979:69)[88]. The distinctiveness of this notion compared to the others proposed in the literature lies, as Levinson notes, in its broader scope: "it refers to any culturally recognized activity, whether or not that activity is coextensive with a period of speech or indeed whether any talk takes place in it at all" (Levinson, 1979:69). Levinson emphasizes, in fact, that the role of verbal language varies across activities, with some being inherently communicative and others involving language only incidentally, if at all. Social activities characterized as activity types can thus be situated on a continuum based on the role of language. At one end are activities that are fundamentally communicative, such as lectures or job interviews; at the other end are activities where verbal interaction is minimal or incidental, such as football games. Between these poles lies a broad range of activities, such as

[88] Levinson defines this category as *fuzzy* as some types of recurring social events is not clear whether should be analysed as activity types – he names, for examples, a *chat* and *telling a joke*.

grocery shopping or a dinner party, where language plays a less essential but still significant role as a means for reaching the goals of the activity.

Rigotti and Rocci (2006) extend the analysis of this concept, that they understand as a derived notion emerging from "the merge of two aspects of context that can be profitably distinguished: the *interaction field* and the *interaction scheme*" (Rigotti and Rocci, 2006:172).

The interaction field is the piece of social and institutional reality where the interaction takes place, characterized in terms of the interactants' *mutual commitments* toward *shared goals* and *rights and obligations*; also, interaction field defines the relevant *social roles*. All the activities and interactions that occur in an interaction field are meant to realize the shared goal. Moreover, such interactions can be characterized as either *operational*, when their effects are inscribed within the set of possible commitments pre-determined by the field itself, or as *strategic*, when they overcome such set operating a context change that involves a reshaping of the field.

Interaction schemes are, on the other hand, virtual practices, understandable as "*culturally shared recipes for interaction*" (Rigotti and Rocci, 2006:173). An interaction scheme is an abstract design of the interaction that provides a protocol, or, as Fraser and Nolen (1981) define it, a *conversational contract*, specifying the dialogue structure and the allowed contributions[89] as well as the roles, and stating mutual rights and obligations. Interaction schemes can be defined at a varying level of specificity, ranging from broader to more detailed, and can be described in terms of *functional classes*, defined according to the general function[90], or in terms of *structural patterns*, meaning according to the characteristic sequence of elements – the structure of the events.

The virtual nature of interaction schemes is a key point. As an interaction scheme alone provides only an abstract template, to obtain an actual context it has to be *fielded*, that is they need to be mapped onto an interaction field, which supplies concrete commitments and objectives. In this sense, the integration of an interaction scheme with an interaction

[89] It has to be underlined that the concept of an interaction scheme offers added value compared to a similar notion that is that of *text type*. While both are abstract constructs, the interaction scheme provides a more clear and concrete foundation for categorizing interactions. Specifically, it offers a *structural* characterization that serves as a clear framework for analysis – a perspective that the concept of text type lacks. The notion of an interaction scheme is inspired by and develops the idea of *dialogue types* proposed by Walton and Krabbe (1995).

[90] In terms of functional classes, the set of basic interaction schemes comprehends *Knowledge Seeking*, *Opinion Shaping*, *Deliberation*, *Accountability Dialogue*, *Conflict Resolution* and *Adjudication*.

field results in an activity type that fully characterizes the communicative situation. It is worth noting that the same interaction scheme can be mapped onto different interaction fields, leading to the generation of distinct *activity types*.[91]

Implementing a scheme within a field establishes sets of *communication flows* and *roles*. Communication flows "can be interpreted insightfully as the repeated, stable occurrence of an *interaction scheme* between certain *roles* in an *interaction field*" (Rigotti and Rocci, 2006: 174). The emerging roles are subsequently embodied by *implementing subjects* – that is, real individuals who, within a specific activity type, assume one of the predefined roles – which can be *individual* or *collective*.

Since these roles are assumed by real subjects, Rigotti and Rocci's model incorporates the interpersonal dimension, acknowledging that "the subjective dimension always exceeds the institutional role" (Rigotti and Rocci, 2006:174). This consideration is crucial when analysing institutional interactions, as individuals, even within highly institutionalized settings, often pursue personal objectives alongside institutional goals. These personal objectives may align with or diverge from the expectations associated with their roles.[92]

One final noteworthy distinction is between *task-oriented* and *relationship-oriented communication*. Task-oriented communication focuses on achieving the shared goals relevant to the specific stage of the activity type, while relationship-oriented communication aims to fulfil relational objectives, which may be more or less aligned with the field's overall goals. Relational objectives are typically pursued over the long term and contribute to the creation of *stories* that can, in turn, influence the institutional dimension.

4.2.2. Financial market as an interaction field

Building on the model outlined above, it is now possible to see why *financial market* can be intended as a communication context, or more precisely as an interaction field.

In §4.1, I outlined how finance is an inherently interactional and, therefore, communicative domain, involving various agents who engage with one another to achieve their individual and shared goals. The financial market, in particular, can be characterized

[91] For instance, a conferencing scheme, that is, a presentation followed by a session of questions and answers, can be found in the political, academic, or even financial context, generating respectively the activity types of *political press conference*, *academic conference*, or *conference call.*

[92] This is strictly related to the *agency problem* illustrated above.

as an "interaction field, whose ultimate goal is value creation, in which companies and investors pursue their respective objectives of raising capital and increasing wealth" (Palmieri and Palmieri, 2012). Rocci (2013b:210-211) states that "[a]n investment decision is the negotiation of a commitment to this joint goal, with the participatory goals that it entails", where the *joint goal* corresponds to the shared one of value-creation, while the *participatory goals* are the respective goals the two roles have to carry out in realizing the former (namely, investors have to invest their money and entrepreneurs to build profitable businesses). Thus, beside the shared goal, they maintain complementary, yet not entirely aligned, objectives. We can say that in finance fundamental preferences are generally aligned as generally speaking, investors want firms to create value in order to have return on investment, so they generally want firms to succeed, and disagreements are primarily epistemic in nature. However, participants also have their own *individual goals*:

> Prominent among these individual goals is the appropriation (of a part of) the value that is expected to be created. Thus, the contracts being negotiated between the participants define different kinds of commitments as regards the appropriation of value. (Rocci, 2013b:211)

While investors must constantly decide where to allocate their resources, companies, constrained by limited capital, compete to attract investments. As Jenks (1948:37) aptly noted, "Well-informed corporate executives recognize the important fact that their company is competing every day with at least twenty-five hundred other prosperous well-managed companies […]." This intrinsic competition, which is a defining feature of finance, drives discourse and enhances the importance of financial communication; in this sense, it can be indexed as the *exigence* (Bitzer, 1968) of this field. The informational and rhetorical objectives discussed earlier are directly rooted in this decisional dynamic, which arises from the competitive interplay among firms. This dynamic is further enhanced by the inherent liquidity of financial markets, which allows investors to buy and sell shares with ease and speed. As a result, companies face the ongoing exigence of consistently earning and maintaining investors' trust. These various goals pursued by the agents involved are realized through the different interactions that take place within the field. Indeed, all the activity types characterizing a field serve as instruments for achieving participants' objectives, encompassing both overarching, general aims and those more specific objectives that come to the forefront during particular moments of interaction.

4.2.2.1. Financial communication as a macro discourse system

Within the interaction field of finance, various communicative events, understood in terms of activity types, take place. Palmieri and Palmieri (2012:3) conceptualize financial discourse as a *genre system*, defined as "a set of interrelated text types which refer to, or even coincide with, specific *activity types* performed". They map the different communication flows and events, each corresponding to a distinct genre within the interaction field, thereby representing the genre system of finance (Fig. 25).

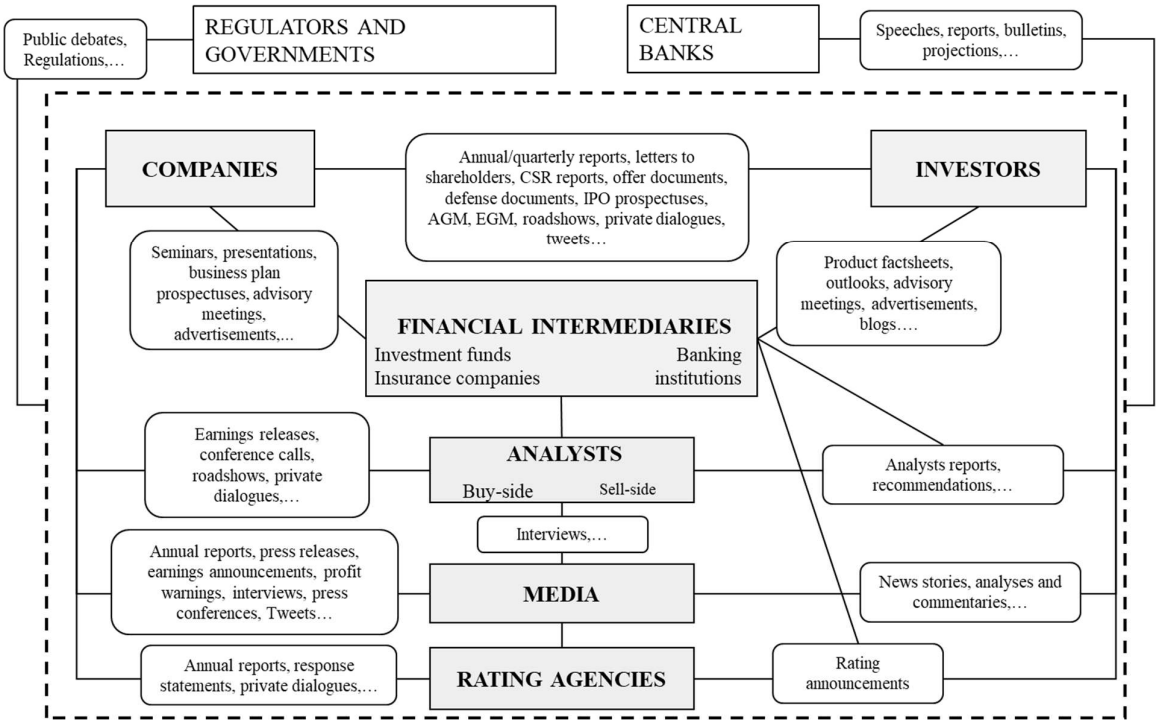


Figure 25. The genre system of financial communication. (Palmieri, 2018; adapted from Palmieri and Palmieri, 2012).

As Rocci (2013b) observes, discourse genres are akin to interaction schemes insofar they are, in Bakhtin's terms, "relatively stable thematic, compositional, and stylistic types of utterance" (Bakhtin, 1986). In this sense, genres are "specifications of the semiotic implementation of an interaction scheme" (Rocci, 2013b:207). However, unlike interaction schemes, genres are field-specific: "they typically emerge from recurrent interactions within a given field" (Rocci, 2013b:207). Consequently, the various text genres identified in the financial discourse system can be fully understood only when analysed not only in terms of their structural properties and features but also in relation to the activity types they represent, incorporating their broader contextual dimensions.

Genres can also be examined at different levels of abstraction and specificity. At a higher level of generality, a genre functions as a generic communicative template that can be applied across multiple domains and further specialized within specific fields. Rocci (2013b) illustrates this concept with the *reporting genre*, which exists as a broad category but becomes more specialized in particular interactional contexts, giving rise to sub-genres such as the *annual report*.

As a macro discursive system encompassing several communicative events and activity types, financial communication exhibits a high degree of *intertextuality*. That is, discourses within this system frequently reference one another, creating a network of interconnected texts. Crawford Camiciottoli (2010), for instance, observes that financial reporting genres show a high level of intertextuality, and, more specifically, that earnings conference calls reveal "considerable manifest intertextuality […] through explicit reference to other texts, several of which were produced by the companies themselves within the wider context of financial disclosure" (Crawford-Camiciottoli, 2010:351). This is due – as already observed in §1.1. – to the "situatedness" of discourses in a context. On a similar vein, Rocci (2013b) shows that in the genre of financial news it is common practice to refer to other texts, which are often companies' disclosures. Commenting the example of a journalistic texts, he notices that "[a]s this text is directly connected, in its pragmatic organization, with the core of the financial interaction field, it is also clearly intertwined with its genre system" (Rocci, 2013b:218). Intertextuality, which manifests itself in different ways in various financial genres and activity types, is thus related to the "systemic" nature of financial communication, which is configured as a network of texts and activities intertwined with each other.[93] Understanding financial communication as an interaction field and as a macro-system of texts therefore helps explaining the high level

[93] In a bakthinian perspective, every text is always "in dialogue" with other texts, and intertextuality is the emergence in the textual surface of this inherent dialogue. Rocci (2009:266) refers to this aspect as *dialogism*: "the dialogical nature of rhetorical discourse deriving from the fact that all discourse (or utterance) is in relation to (i.e., in dialogue with) other discourses and is oriented to the (implicit) response of the addressee, in view of which the author constructs his text by attempting to anticipate reactions and objections of the addressee". Rigotti (2005:91) observe that "every discourse is a dialogue at the ontogenetic level and is internally structured as a dialogue by its pervasive bakhtinian polyphony".

of intertextuality and the related *polyphony*, namely the fact that a speaker can refer to others' positions and opinions, integrating them in their own discourse.[94]

4.2.2.2. Financial communication as a *polylogue*

As discussed in the previous paragraphs, financial communication involves multiple participants. While companies and investors are the primary actors, other parties – such as financial intermediaries, analysts, and the media – play an active role. Far from being mere background figures, these participants are deeply involved in the mechanisms of financial communication, shaping the communicative flows as well as the field. Interactions in financial communication can thus be characterized as *polylogues*, a concept defined by Kerbrat-Orecchioni (2004, p. 3) as a "multi-participant interaction". According to her definition, polylogues encompass "all communicative situations which gather together several participants, that is, real live individuals", with the number of participants ranging from four[95] to potentially infinite.

Interactions within the financial domain are inherently complex events that can be effectively analysed through the lens of Erving Goffman's *participation framework* (Goffman, 1981). This framework allows for the decomposition of the various roles embedded within the conventional categories of speaker and hearer. Specifically, Goffman introduces the notion of *production format* to delineate the different roles a speaker may assume: the *animator*, defined as "an individual active in the role of utterance production"; the *author*, described as "someone who has selected the sentiments that are being expressed and the words in which they are encoded"; and the *principal*, characterized as "someone whose position is established by the words that are spoken, someone whose beliefs have been told, someone who is committed to what the words say" (Goffman, 1981:144). Furthermore, the speaker may adopt different *footings*, modulating, for instance, their level of neutrality or engagement with the interlocutor.

[94] It is noteworthy that referencing others' words or disclosures can serve as a strategic rhetorical and argumentative move. For example, in the news texts analysed by Rocci (2013b), quoted disclosures function as sources that as such enhance the credibility of reported facts and contribute to showing the relevance of the discussed topic. The strategic use of such references in earnings conference calls – whether as a broader form of intertextuality or as precise instances of reported speech – anticipated in §4.2 will be a central focus of the analysis in Chapter 6.

[95] For interactions involving three participants, Kerbrat-Orecchioni (2004) employs the term *trilogues*.

Conversely, hearers occupy various *participation statuses*. Goffman (1981) differentiates between *ratified* and *non-ratified participants*. Ratified participants include *addressed* and *unaddressed recipients*, whereas non-ratified participants encompass *bystanders*, *overhearers*, and *eavesdroppers*. These distinctions are based on the *degree of participation* in the communicative process (Bell, 1984).

Expanding on Goffman's framework, Kerbrat-Orecchioni (2004) introduces further refinements, specifying that the addressee may be either *primary* or *secondary*. Additionally, she incorporates the concept of the *target*, a term borrowed from Levinson (1988), to denote "the person for whom the utterance is really intended", which may differ from the addressee. This dynamic generates a particular phenomenon, wherein communication is directed at one individual while intending to influence another, which is referred to as a *communicational trope* (Kerbrat-Orecchioni, 2004:15).[96]

Building on Goffman's participation framework, Palmieri and Mazzali-Lurati (2016, 2021) propose the *Text Stakeholder Model*, which conceptualizes rhetorical situations involving *multiple audiences*. They argue that public communication – particularly in digitalized environments – broadens the scope of potential audiences, both in terms of numerical reach and internal heterogeneity. This expansion is not merely a matter of increasing audience size but also of diversifying the audience's composition into distinct subgroups – therefore a *multiple* audience. The emergence of multiple audiences, and, consequently, of *multiple voices*, necessitates strategic communicative management. Specifically, it requires both the careful monitoring and, where possible, the anticipation of discursive dissemination processes, as well as the effective coordination of multiple voices that reflect varying perspectives on the subject matter (Palmieri and Mazzali-Lurati, 2021:159-160). In this context, discourse and communicative environments can be characterized as *polyphonic*, in that they integrate multiple voices (Palmieri and Mazzali-Lurati, 2016). Within this framework, the roles articulated in Goffman's model are assumed by text stakeholders, defined as "the real discursive beings who constitute the source of the different points of view entailed by a polyphonic structure" (Palmieri and Mazzali-Lurati, 2016:164).

[96] Kerbrat-Orecchioni (2004) describe this strategy quoting a few passages from Proust's *À la recherche du temps perdu*. Among these, I find that one expression is particularly adequate and effectively clarifies the move of the communicational trope as well as its strategic nature: "as when playing billiards, in order to hit a ball, one plays against the edge of the billiard-table" (*Sodom and Gomorrah*, II: 212).

The schematization in Figure 26 illustrates how text stakeholders emerge from the context as real individuals – such as managers, shareholders, and employees – who actively participate in the interaction field and, in the interaction, assume specific participation roles. This multiplicity of parties and voices contributes to the polyphonic configuration previously discussed.

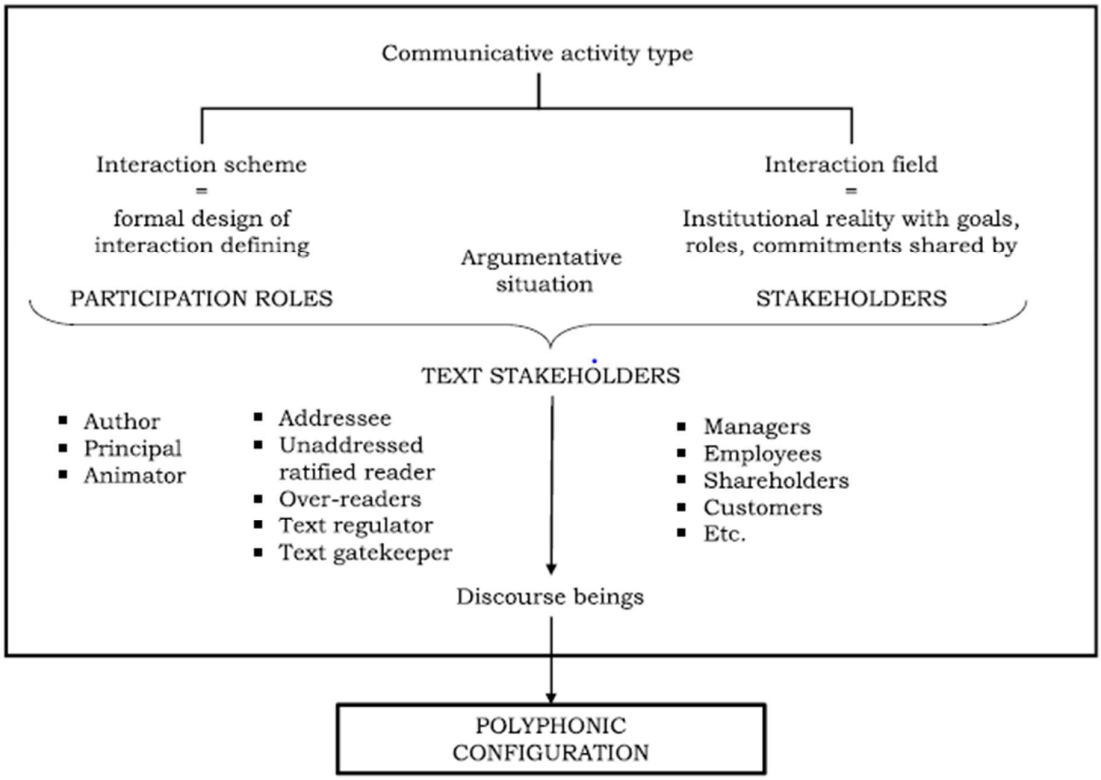


Figure 26. Communication context, text stakeholders, and the polyphonic configuration (Palmieri and Mazzali-Lurati, 2021)

In financial communication, there are several participants, which in different communicative events can be active or silent, but also in the latter case are ratified and need to be considered. For instance, in earnings conference calls investors do not actively participate, but are indeed part of the ratified audience, and have a key role in evaluating both the companies – to decide whether to invest – and the analysts – to evaluate their job as their intermediaries. Participants can also be *plural*, such as companies and companies' managements, which are usually constructed as a single subject made of several individuals. At an institutional level, they represent a single agent sharing the same goal, a plurality that works as a single party; however, at an interpersonal level – adopting the term from the model of the context discussed in §4.2.1 – they are indeed different

individuals who could have, in some cases, divergent personal goals; there could even be some tensions and conflicts among them. Moreover, each participant – both at the individual and at the institutionalized level – has several incentives and goals, which emerge differently in the various communicative events.

The term *polylogue* has also been employed in argumentation theory, particularly by Lewiński and Aakhus (Lewiński and Aakhus, 2014, 2023; Aakhus and Lewiński, 2017). In their view, an argumentative polylogue is "not simply a discussion between multiple participants, but rather multiple different argumentative parties defending their distinct positions" (Aakhus and Lewiński, 2017:181). The argumentative polylogical nature of earnings conference calls will be examined in greater detail in §4.2. However, it is already noteworthy that, as Aakhus and Lewiński emphasize, "disagreement expansion not only occurs over positions and players, but it also expands over place", where *place* refers to the *venue* (Aakhus and Lewiński, 2017:182). Contemporary communication and discourse have become increasingly complex in terms of *where* they take place. As Kjeldsen (2013:19) observes, the rhetorical situation has evolved due to the "increased fragmentation, complexity, mediatisation, and technocratisation of society". In a similar vein to Palmieri and Mazzali-Lurati (2016, 2021), who highlight the multiplication of audiences, Aakhus and Lewiński (2017:187) note that "[t]he speaker faces a plurality of situations via mass and new media on the occasion of giving a speech that confronts many audiences and differential situations". Likewise, Kjeldsen (2006:116) underscores that speakers "find themselves in several rhetorical situations at the same time".

A similar perspective is advanced by Mohammed (2011; 2013a; 2013b; 2016), who conceptualizes public political discourses as *multi-layered* and *multi-purposive activity types*, in which participants simultaneously pursue different goals. This complexity arises from both the already discussed multiplicity of audiences and from the diverse goals a speaker may seek to achieve with her discourse. Mohammed (2016) distinguishes between *intrinsic* and *extrinsic goals*. Intrinsic argumentative goals pertain to the fundamental purposes of argumentation and include both the goals of the *act of arguing*, namely *justifying* and *convicing*, as well as the broader objective of "critically testing disputed standpoints", which is characterized as "a goal of the *interactions* in which the act of arguing occurs" (Mohammed, 2016:225, emphasis added). In contrast, *extrinsic goals* are context-dependent and derive from the specific characteristics of the activity type. These extrinsic goals operate at two levels: there are more *dialogical* goals which relate to the

interaction scheme, and *institutional* goals, which are shaped by the interaction field and its features and constraints. For example, in ECCs, as will be examined in §4.2, both managers and analysts pursue distinct yet interrelated objectives, strategically shaping their discursive choices to achieve their respective aims. Mohammed (2011; 2013a; 2013b; 2016) further emphasizes that within such multi-layered argumentative interactions, multiple issues can be addressed concurrently, defining these argumentative exchanges as *simultaneous discussions*.

> A discussion, here, is not to be understood in the actual sense of a real life discussion that takes place in a specific time and place. It is rather a dialectical analytic reconstruction of a real life discussion, defined in terms of a standpoint and the argumentation advanced in support of it. Two discussions are simultaneous if there is at least one argument, or one argumentative move, that plays a role in both discussions without any of the discussions being subordinate to the other. (Mohammed, 2016:234)

Within this framework, as Mohammed highlights, a rhetorical or argumentative move may simultaneously serve multiple goals or address different audiences. Furthermore, the evaluation of such moves depends on the perspective from which they are assessed. As she observes, "[a] move that contributes to the discussion of several issues simultaneously and serves several political purposes at the same time will be assessed differently depending on the issue and purpose" (Mohammed, 2016:236; see also Lewiński and Aakhus, 2014). This underscores the inherent complexity of argumentative exchanges in public discourse, where strategic considerations shape both the content and reception of discursive moves.

Understanding a discourse as "part of a general structural system of changeable situationality" (Kjeldsen, 2006:118) or as a part of a network of activity types – the *macro discourse system* – necessitates recognizing that discourse is not an isolate event; consequently, it cannot be analysed independently of its interrelations with other texts and discourses. In this sense, it is essential to consider the intertextual dimension and the polyphonic configuration, identifying the positions at stake, the interlocutors involved, and, ultimately, the broader rhetorical and argumentative dynamics at play. Rhetorical and argumentative strategies can only be fully understood within the larger contextual discourse – what Rocci (2013b), drawing on a Foucauldian notion, terms *discourse²*.

4.3. Argumentation in financial communication

Since financial communication aims at shaping investors' opinions – whether by entrepreneurs or analysts – it inherently qualifies as a form of argumentation. The notion of argumentation is extensively discussed in Chapter 2; here, I recall the definition provided by the Pragma-Dialectical theory:

> Argumentation is a communicative and interactional act complex aimed at resolving a difference of opinion with the addressee by putting forward a constellation of propositions for which the arguer can be held accountable in order to make the standpoint at issue acceptable to a rational judge who judges reasonably. (van Eemeren, 2018:3)

In simpler terms, argumentation is a form of communication in which a speaker presents reasons to support the validity of a proposition (a *standpoint*) that is not immediately self-evident. Argumentation also inherently involves an *issue*, understood as a problematic question, following the Aristotelian notion of *πρόβλημα* (see Chapter 2, §2.1). In this sense, an argumentative issue corresponds to Bitzer's concept of *exigence*, meaning that when a problem arises in human interaction, argumentation becomes particularly relevant (Rigotti and Greco Morasso, 2009; Palmieri, 2018) as a suitable way to address it.

Financial communication, which revolves around investment decision-making and entrepreneurs' persuasive incentives, is a particularly fitting context for argumentation. As Palmieri et al. (2015:123) emphasize, "argumentation is […] crucial for financial communication, whose fundamental dynamic of connecting information to investment decisions ultimately rests on a reasoning process". Likewise, Palmieri (2018:47) points out that "[d]epending on the genre conventions of a financial text, argumentation can manifest itself under various forms". As discussed extensively in Chapter 2 (§2.1.1), argumentation is a pervasive practice in human communication and can be found across numerous discourse types. However, as clarified through Congruity Theory, certain texts are primarily argumentative, meaning that argumentation constitutes the global connective predicate underlying the entire discourse. This applies to financial communication as well, where some discourse genres and text types are explicitly argumentative. For example, *analysts' recommendations* to investors aim to justify their advice, while *takeover offer documents* provide structured arguments designed to persuade the target firm of the benefits of a merger. Palmieri et al. (2025) analyse *activist investors campaign* as

essentially argumentative activity types. Similarly, *earnings conference calls* are inherently argumentative activity types, as will be discussed in detail in §4.4. While their argumentative nature may not always be apparent at the textual surface, these interactions function as structured discussions in which managers justify their financial assessments and strategic decisions, while analysts act as dialectical counterparts, critically assessing and challenging their standpoints and reasoning.

Palmieri and Mazzali-Lurati (2016) integrate in the scheme reported in Fig. 27 the *text stakeholders* in the argumentative situation, observing how a text interacts with it.

> Any argumentative text is a sort of response to an argumentative situation defined around an issue, which entails the exigence triggering the situation. […] The argumentative intervention the writer intends to design has to deal with a set of constraints bound to the institutionalized communicative activity type where the text is expected to be published. More specifically, such constraints derive from the interaction scheme and the interaction field constituting the communicative activity at hand. As explained in the preceding sections, text stakeholders arise precisely from the mapping of the scheme onto the field. A text stakeholder is a member of the interaction field (as such sharing some goals and having particular commitments), who (1) holds an interest towards the text in the form of an issue that the text is expected to resolve and (2) occupies a specific interactional role compatible with the interaction scheme activated by the text, which affects how the issue is represented and discussed. (Palmieri and Mazzali-Lurati, 2016:483).

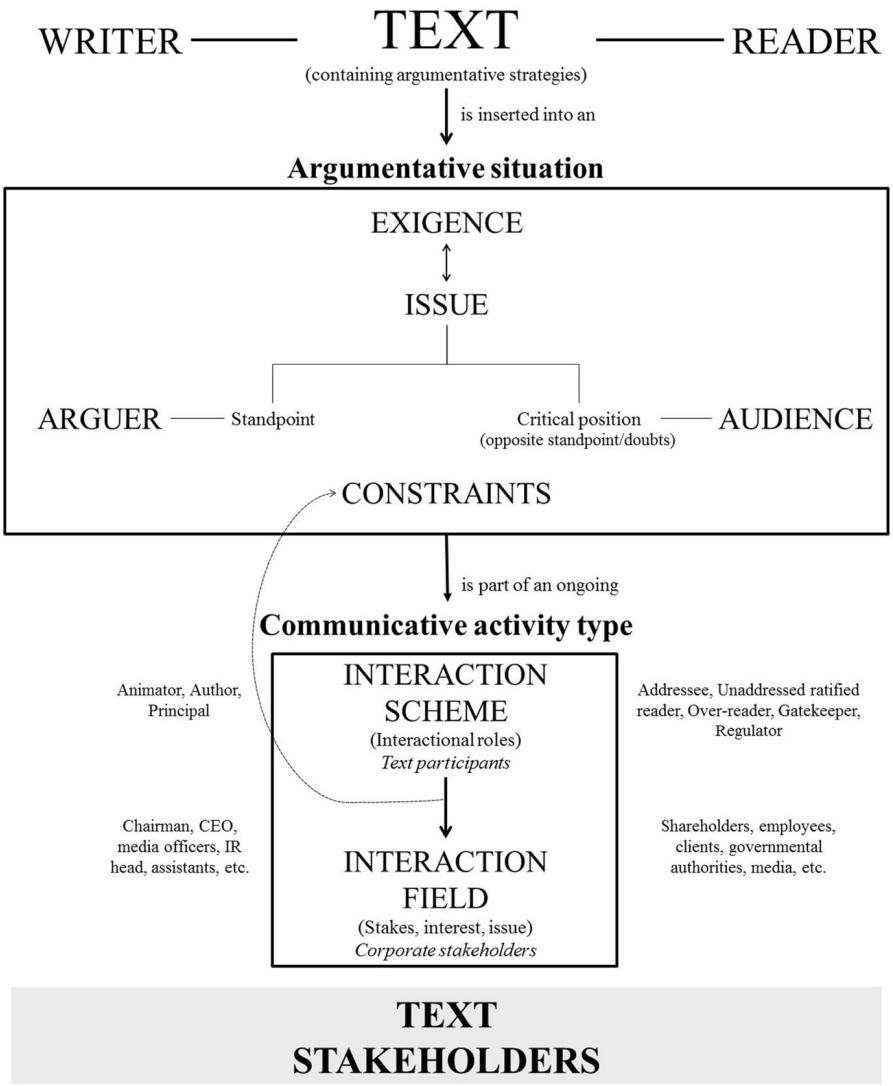


Figure 27. Text stakeholders in argumentative situations (Palmieri and Mazzali-Lurati, 2016)

4.3.1. Argumentation as an alternative to impression management

As a form of persuasive communication, financial disclosures can sometimes veer into manipulative practices, where "the pursuit of rhetorical aims overpowers the critical commitment toward the construction of reasonable informed consent" (Palmieri, 2018:47). Several studies observed that managers deploy different *impression management* strategies in attempts to distort investors' perception and, thus, manipulate their decisions (Clatworthy and Jones, 2001; Yuthas et al., 2002; Godfrey et al., 2003; Merkl-Davies and Brennan, 2007). As a communicative practice, impression management is characterized by intentionally distorted information and scarce critical engagement,

resulting in deceived investors, market inefficiencies, and capital misallocation (Merkl-Davies and Brennan, 2007). Moreover, such deceitful communication practices prove detrimental in the long-term perspective, ultimately damaging the company itself through reputational and financial harms (Lev, 2012; Palmieri, 2018).

In this respect, an argumentative approach to financial communication offers a more constructive alternative. Rather than treating persuasion as inherently deceitful, argumentation theory recognizes that speakers – as corporate communicators – can pursue rhetorical goals while simultaneously respecting the conditions for a reasonable and transparent exchange with their audience. The notion of *reasonableness* is thus a key factor in this distinction. Aimed at obtaining persuasion by reasonable means, argumentation represents the natural counterpart to manipulative rhetoric (Palmieri, 2018): where impression management seeks to influence investors by distorting or obscuring information, argumentation does so by inviting critical evaluation of explicitly stated reasons. This distinction matters not only ethically but also practically, since attitude changes produced by sound arguments tend to be more durable than those achieved through manipulation (Petty and Cacioppo, 1986; O'Keefe, 2002; Palmieri, 2018).

It is worth noting, however, that both impression management and argumentative approaches share a fundamental premise: financial communication is inherently strategic and rhetoric, in that corporate actors deliberately deploy communicative choices with a view to shaping stakeholders' – and particularly investors' – opinions and decisions. Where the two approaches diverge is not in their understanding of corporate motives but, as mentioned already above, in how they evaluate the communicative strategies that follow from those motives. Impression management research tends to treat narrative and voluntary disclosure as structurally oriented toward distortion, offering limited tools for distinguishing more or less acceptable forms of strategic communication. Argumentation theory, by contrast, introduces a normative dimension that impression management lacks based on the principle of reasonableness, which provides a criterion for determining whether a given persuasive strategy respects the conditions of critical dialogue or crosses into manipulation. This does not mean that all financial argumentation is necessarily sound – as Palmieri (2018) observes, financial argumentation can be fallacious and deceitful, both intentionally and unintentionally. Rather, it means that argumentation theory equips the analyst with a principled standard against which communicative practices can be assessed.

As a practice, then, argumentation does not renounce persuasion, as discussed in Ch. 2, and corporate communicators remain inherently rhetorical actors who seek to convince investors (Palmieri, 2018). The crucial difference lies in how that persuasion operates. Rather than bypassing investors' critical judgment, argumentation invites them to evaluate a standpoint by putting forward reasons that can be scrutinized. This is captured in the notion of strategic manoeuvring (van Eemeren, 2010), whereby rhetorical effectiveness and dialectical reasonableness are pursued simultaneously rather than traded off against each other.

As an analytical framework, argumentation theory also overcomes some intrinsic limitations of the impression management concept. Impression management functions essentially as a diagnostic label – it identifies that communication is distorting reality but offers limited tools for explaining the internal logical structure of the message. Argumentation theory, by contrast, allows one to reconstruct precisely how a piece of information is mobilized to support a standpoint. In particular, frameworks as the Argumentum Model of Topics (Rigotti, 2006; 2009; Rigotti and Greco Morasso, 2010, see §2.4.2) can be applied to financial communication allowing to reconstruct and evaluate inferential constructions. The principle of reasonableness and the critical commitment inherent to argumentation thus provide a more principled criterion for evaluating financial communication: only persuasive strategies that are coherent and transparent within a framework of critical dialogue can be deemed argumentatively acceptable.

Having established the significance of argumentation within financial communication *in general*, I now turn to a more detailed examination of how argumentation takes shapes in this specific context.

4.3.2. Arguing in finance: argumentative issues and standpoints

In his work on the strategic role of argumentation in financial context, Palmieri (2018) offers a detailed analysis of the different types of argumentations that takes place in financial discourse, in particular in terms of issues and standpoints. Recalling Aristotle's distinction between *epistemic* (knowledge-oriented) and *practical* (action- or decision-oriented) issues (see Chapter 2, note 9, p. 31), Palmieri underlines how the latter are particularly central in finance. He states that "[t]he role of argumentation in financial communication is particularly prominent when supporting decision-making both at the investor and corporate levels" (Palmieri, 2018:49). As said repeatedly in this chapter,

finance revolves around the investment *decision* the investors have to make, and thus the *practical issue* for them revolves around the choice on where to invest their money. Managers, in the various communications and interactions, tries to argue for the practical standpoint that they should invest in their company – adducing the relative arguments to support such conclusion. Financial analysts as well are called to argue upon such issue; as their role is that of advising investors, in their recommendations or reports they have to scrutinise companies' arguments and propose their own standpoint with respect to what the investor should do. In the abovementioned activist investors campaign "an institutional shareholder tries to convince fellow shareholders to vote for a substantial change in the governance and strategic management of a corporation, going against the views and plans of the executive managers and directors" (Palmieri et al., 2025:2). Decision-oriented argumentation takes place also at corporate level; for instance, in takeover bids shareholders are confronted with a practical issue concerning the acceptance (or rejection) of the offer (Palmieri, 2014; 2018).

Knowledge-oriented issues and argumentations are fundamental as well. The various practical decisions that have to be made by investors, shareholders or managers are necessarily based on information, which in finance is a crucial yet problematic dimension (cf. §4.1), and on assessment of companies' and markets' financial situation, present and future. Therefore, it is vital to sustain practical standpoints with valuations and predictions, that as are not self-evident are turned into epistemic sub-issues.

Palmieri (2018) proposes a schematization, represented in Fig. 28, of issues and standpoint types that shows this multi-level dynamic where final practical decisions are supported by different pieces of knowledge. More specifically, these sub-standpoints can be facts (*descriptive standpoints*), explanations (*explanatory standpoints*), predictions (*predictive standpoints*) and evaluations (*evaluative standpoints*) (Palmieri, 2018; Palmieri et al., 2015).[97]

Among these knowledge-related standpoints there is a hierarchical relation, or a justificatory chain. One can imagine that pure facts, which could be numerical data or factual events, lie at the bottom level of the argumentative process. These data can be

[97] A detailed account of each type of standpoint is given in Palmieri (2018) and Palmieri et al. (2015). This taxonomy of standpoints will prove relevant in the argumentative analysis and discussion carried out by this study.

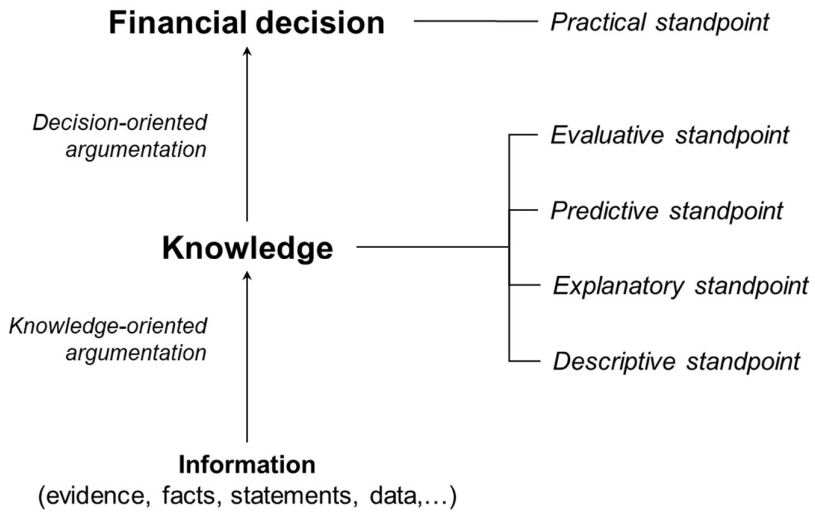


Figure 28. Types of issues and standpoints in financial communication (Palmieri, 2018)

justified and thus become descriptive standpoints. Once those data are accepted, they serve as starting premises to justify either explanations (which concern past events) or predictions (related to future events). The latter are particular important in finance:

> As investments entail renouncing present wealth in the hope of gaining more wealth in the future, financial communication abounds with forward-looking statements (Miecznikowski, Rocci, and Zlatkova, 2012). The intrinsic uncertainty characterizing future events makes argumentation necessary for making financial forecasts credible and realistic. (Palmieri, 2018:50)

Predictions about future outcomes of the market or of a company are in turn the basis for an (e)valuation of firms, as their value correspond to their capacity of generating returns in the future. Evaluations can also concern, beside this financial aspect, the assessment of policies or proposals (*Is this strategy convenient? Is this proposal advantageous?*) or even of management's work and accountability (*Is the management trustworthy?*). For instance, when advocating for a change in the Board of directors, which is usually the main point of activist investors campaigns and proxy fights (Palmieri et al., 2025), the main sub-standpoint is evidently an evaluative one concerning the trustworthiness of the Board.

On a last remark, it is interesting to notice that as Rigotti and Greco Morasso (2010) highlight, arguing does not necessarily require the disclosure of *new* information, but implies using old as well as new information as premises that rationally substantiate the

standpoint at stake. The information that lies at the basis of the argumentative chain just outlined function as argumentative premise when it is "put into work" in an inferential process. The data and evidence are not *per se* arguments but are *used* as such; in this sense, they do not need to be new but *relevant*, and their relevance is defined in terms of the justificatory relation they have with the conclusion they support.

4.3.3. Argumentation theory in the test of financial communication

As an inherently argumentative field, financial communication can benefit from an argumentative analysis informed by a theoretically driven framework. In this sense, argumentation theory can enlighten the functioning of financial communication in several ways. This study attempts at giving a contribution in this direction, showing how an argumentative investigation of earnings conference calls can provide meaningful insights on this activity type. The theoretical scaffolding offered by Pragma-Dialectics – and the various extensions proposed – presented in Chapter 2 represents the backdrop against which the analysed interactions are observed and investigated.

On the other hand, it is also true that theoretical accounts and models – as the Pragma-Dialectical ideal model – are schematization, which when confronted with real life argumentation can reveal some shortcomings or limitations, inviting to a revision of the theoretical approach. Somehow, we can say that the theory of argumentation is "put to the test" by the various contexts of analysis, and the context of financial communication itself provides some challenges.

In particular, being a polylogical setting, financial communication challenges the classical dyadic conception of communication and argumentation. As discussed above, interactions in financial communication are multi-party, polylogical and polyphonic discussion (see §4.2.2.2). In an argumentative perspective, this complexity of roles challenges the classical dyadic protagonist-antagonist scheme. On the one hand, these interactions are not limited to two parties; moreover, a single agent can assume in different activity types and discourses different roles. For instance, analysts act as dialectical antagonists during earnings calls, challenging manager's argumentation; at the same time, they are acting as intermediaries for investors, thus bearing their perspective and arguing as their spokesmen, and also are collecting information in order to produce their own argumentation in the recommendations they write – in which they act as protagonists of their standpoints proposed to the investors. Furthermore, although they are mainly

questioners, and as such antagonists during the call, as will be shown in the analysis in Chapter 8, they bring about their own argumentation when advancing interpretation and hypotheses, and also micro-argumentation at a meta-interactive level when justifying their questions.

These kind of polylogical interactions are thus problematic for dialectical models of argumentation. Lewiński and Aakhus (2013) already recognized this challenge:

> While such multi-party and multi-position discussions are characteristic of a large class of argumentative activities, especially of a deliberative type, in argumentation theory they are typically analysed and evaluated with the help of dialectical models. Such models theorize argumentation as a dyadic exchange between two and only two parties (such as protagonist and antagonist or proponent and opponent) who take up only two basic positions (such as pro and con or agree and doubt). (Lewiński and Aakhus, 2013:161)

On a different note, while it is evident that financial communication is highly argumentative and there is a clear underlying practical issue concerning the investment decision, this is not always explicitly addressed in discourses. The presence of implicit overarching issues makes it pertinent an argumentative reconstruction and analysis but at the same time makes it more difficult from an analytical point of view. As §4.4.2.2 will show, for instance, during earnings conference calls the investment problem is at the core of the discussion, but it is almost never overtly discussed. Rather, it is indirectly approached, and what is addressed are actually sub-issues, usually evaluative or predictive, or even descriptive when a specific data or fact has to be ascertained.

Applying the Pragma-Dialectical model to interactions in this domain is thus a challenging task, which shows that while the theory offers a starting point for analysis, providing relevant concepts and a systematic approach, it has to be adapted to real argumentative practices.

4.4. Characterizing the activity type of Earnings conference calls

This study focuses on a specific communicative event within the financial domain: *earnings conference calls* (henceforth ECCs). Widely recognized as a regular and prevalent medium of communication, ECCs facilitate interaction between corporate executives, financial analysts, and a broader audience, including investors and financial intermediaries.

The study of ECCs has gained prominence across multiple disciplines, emerging as a key area of research in finance and accounting (e.g., Bushee et al., 2003; Brown et al., 2004; Bushee andLeuz, 2002; Frankel et al., 1999; Tasker, 1998; Bowen et al., 2002; Cohen et al., 2012; Davis et al., 2015; Chen et al., 2018; Rennekamp et al., 2022; Lee, 2016) where scholarship focused mainly on the informativeness and relevance of this disclosure medium for the financial community. Some linguistics-based business communication studies (e.g., Crawford Camiciottoli, 2007, 2009, 2010, 2011, 2013; Palmieri, 2008b; Hollander et al., 2010; Price et al., 2012; Dzielinski et al., 2017; Abraham and Bamber, 2017; Keith and Stent, 2019; De Amicis et al., 2021; Koller and Wu, 2023; Garcia et al., 2023) explored ECCs from different perspectives. Crawford Camiciottoli (2007, 2009, 2010, 2011, 2013) explored the genre of ECCs, describing its main interactional characteristics – in terms of structure, participants' goals and incentives – and rhetorical features (see §4.4.1). Other works implement different linguistically informed methodologies to explore ECCs' characteristics. For instance, Hollander et al. (2010) explore managers' silence in ECCs, underlining how managers often do not answer to questions and that analysts interpret negatively such silence; Price et al. (2012) investigate ECCs' informativeness and the corresponding market reaction by employing computer aided content analysis. Dzielinski et al. (2017) analyse different managers' communicative styles, showing that they can be more or less vague, and thus more or less informative, and that analysts and the market react differently to these styles. Keith and Stent (2019) examine analysts' decision-making behaviour through the analysis of their linguistic choices in ECCs. For instance, De Amicis et al. (2021) conduct a textual analysis of a large corpus of ECCs transcripts to compare the difference in sentiment between female and male senior managers, while Garcia et al. (2023) develop novel dictionaries of positive and negative words, expanding and elaborating on existing dictionaries and methodologies in the literature (Taddy, 2013), in order to predict market movements. Abraham and Bamber (2017) investigate the incentives of analysts to participate in ECCs, arguing that impression management techniques are employed in the calls in order to deal with the "surveillance gaze". Koller and Wu (2023) analyse how financial analysts employ politeness strategies in constructing professional identities in order to navigate conflicting incentives and needs.

Recent scholarship has also begun to account for the rhetorical and argumentative dimensions of ECCs, with a particular focus on their discursive and dialogical features and

how these reflect the goals and strategies of participants (Palmieri et al., 2015; Yaskorska-Shah et al., 2022; Lucchini et al., 2022; Lucchini and D'Agostino, 2023; D'Agostino and Lucchini, 2023; D'Agostino et al., 2024a; 2024b; Rocci et al., 2025; Lucchini et al., 2025). These analyses contribute to understanding how the interactional context shapes dialogue, revealing how institutional constraints influence the communicative practices of participants. Additionally, they explore how argumentation is embedded within these dialogues, shedding light on the interplay between discourse, strategy, and persuasion in the financial communication landscape.

The next paragraph introduces the discourse genre of ECCs, focusing on their participants, structural features, and their *informativeness* for financial markets as connected to their discursive feature. Subsequently, in §4.4.2 I analyse ECCs as an activity type through the lens of the communicative context model presented in §4.2.1, exploring their argumentative nature and how argumentation manifests within these dialogues. §4.4.3 discusses in detail the goals and incentives of corporate managers and financial analysts. In order to better characterize analysts' roles as questioners and the strategies they employ, I propose a comparison with political journalists, whose role in political press conferences is similar to that of analysts in ECCs, yet differs in several key respects.

Finally, as a central theme of this dissertation, in §4.4.4 I examine the importance of knowledge management in this activity type, highlighting its relevance to the goals of both managers and analysts.

4.4.1. The discourse genre of ECCs

Earnings conference calls, a sub-genre of the broader category of voluntary financial disclosures, are quarterly teleconferences organized by listed companies through external teleconferencing services, typically held immediately after the publication of *earnings releases*. These highly conventionalized communicative events have become increasingly common in recent years and, despite advancements in technology and the ongoing digitalization that have influenced business discursive practices, ECCs can be defined as a relatively stable genre (Crawford-Camiciottoli, 2007; 2010; 2013).

The main participants in ECCs are *corporate representatives* and *financial analysts*. The former are responsible for presenting and discussing quarterly results, while the latter engage by asking questions, acting as intermediaries on behalf of investors (see §4.1.1). Additionally, an *operator* from an external specialized service facilitates the call by

managing the discussion. However, while these events may appear straightforward, involving two primary participant roles, they embody a more intricate communicative structure. This complexity can be effectively analysed, once again, through Goffman's participation framework (Goffman, 1981), which revealed that individuals commonly identified as the addresser and addressee often correspond to multiple distinct subjects. Specifically, although managers and analysts are the active participants in the interaction, there are other *unaddressed ratified hearers* whose presence is crucial for understanding certain dynamics of these events. These include primarily *investors* for whom analysts work, who may oversee analysts' activities, as well as other analysts, financial institutions, and even representatives from financial media. Moreover, text regulators and text gatekeepers, that play an important role in financial communication, can be defined as *meta-readers* (Palmieri and Mazzali-Lurati, 2016; 2021). ECCs can therefore be clearly characterized as polylogues, in the sense of Kerbrat-Orecchioni (2004), as they constitute multi-party interactions. The presence of *multiple audiences* (Palmieri and Mazzali-Lurati, 2016), amplified by the digitalization of communicative events, renders earnings calls inherently polyphonic and influences participants' communicative choices and strategies.

ECCs follow a recurring fixed structure consisting of two main components: a *corporate presentation* section and a *question-and-answer* (*Q&A*) part (Crawford-Camiciottoli, 2006; 2007; 2014). During the presentation, corporate representatives detail the company's quarterly results through "monological interventions" (Palmieri et al., 2015), where managers share financial updates, performance highlights, and strategic initiatives. In contrast, the Q&A section allows for a more interactive dialogue, as financial analysts pose questions directly to managers, who provide real-time responses. This dual structure ensures that ECCs serve both as a platform for information dissemination and as a space for clarifying uncertainties or addressing investor concerns.

Crawford-Camiciottoli (2006; 2007) provides a more granular breakdown of the *macrostructure* of these calls, distinguishing five sequential phases, which are illustrated in Figure 29. The process begins with an external operator welcoming participants and providing technical instructions, such as how to join the discussion or submit questions (Phase 1). Following this, corporate representatives deliver their presentation (Phase 2),

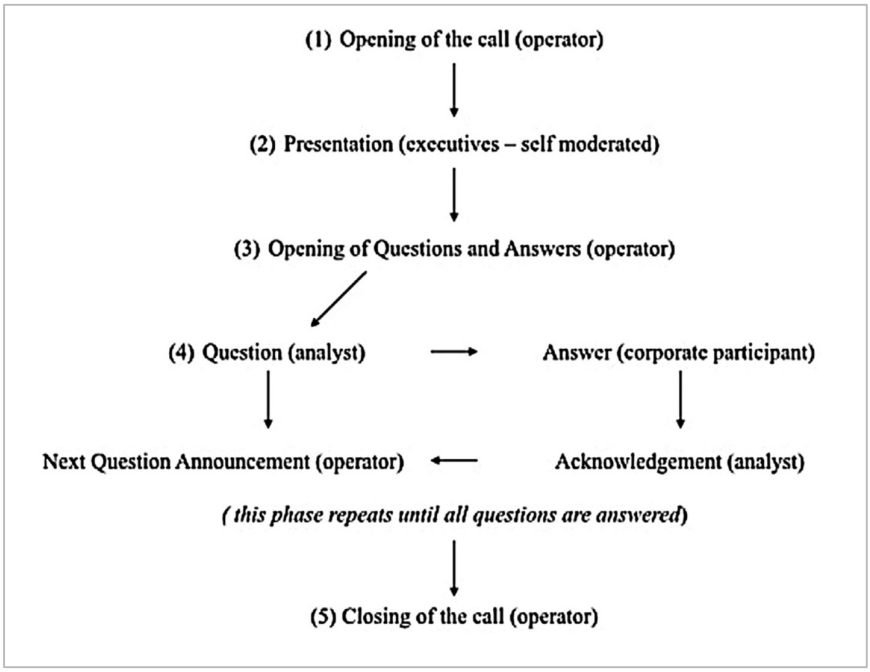


Figure 29. The macrostructure of an ECCs (Crawford-Camiciottoli, 2007)

with different managers addressing specific topics, such as financial performance, operational updates, or future outlooks. This phase often involves the use of pre-prepared materials, such as slide decks or detailed financial statements, to support the verbal presentation. Once the presentation is complete, the operator transitions the call to the Q&A session (Phase 3). During this part (Phase 4), the operator moderates the discussion, calling on analysts who have signalled their intention to ask questions. Each interaction typically follows a clear turn-taking pattern: the analyst poses a question, the relevant corporate representative(s) responds, and the analyst may follow up with additional queries or acknowledge the response. This phase is crucial for analysts, as it allows them to investigate deeper into topics raised during the presentation or to address issues of their interest. After all questions have been addressed, the call moves to the closing phase. In this stage, corporate representatives offer concluding remarks, which may include a summary of key takeaways, greetings to participants, or reaffirmations of corporate goals and commitments. Finally, the operator concludes the call by formally ending the session (Phase 5).

4.4.1.1. The informativeness of ECCs

Several studies have explored the role of ECCs, examining their impact on financial markets with a particular focus on their *informativeness* for the investing community.

At a first, more general level, ECCs are useful events for financial actors, offering a platform that facilitates essential interactions in the financial domain. As Frankel et al. (1999) observed, the regular participation of analysts – and other members of the investing community – in ECCs underscores the importance of these events as critical components of financial communication. These calls evidently hold significant value for both managers and analysts, serving as effective platforms for cost-efficient and timely information dissemination (Frankel et al., 1999). For companies, ECCs provide a strategic opportunity to engage with multiple analysts simultaneously, thereby reducing the need for individual communications while minimizing the risk of selective disclosure. For analysts, ECCs are equally beneficial, as they provide timely access to crucial updates directly from corporate representatives, ensuring that information is received promptly and simultaneously with their peers. Additionally, analysts gain insights by listening to questions raised by others. ECCs also enable analysts to save time and financial resources by reducing the frequency of individual meetings with investor relations teams. In this way, ECCs streamline the flow of information and enhance the efficiency of interactions between these key market participants.

Numerous studies provided evidence that, although ECCs do not add much in terms of *material data* (Kimbrough, 2005; Price et al., 2012), they are *informative* for the investing community and significantly impact financial markets (Frankel et al., 1999; Bowen et al., 2002; Bushee et al., 2003; Kohlbeck et Magilke, 2004; Kimbrough, 2005; Frankel et al., 2010; Matsumoto et al., 2011; Price et al., 2012). In particular, ECCs disclose more information than the earning releases that precede the calls, triggering greater trading and stock price responses (Frankel et al. 1999; Bushee et al. 2003; Kohlbeck and Magilke 2004), and influence analysts' recommendation and thus investors decisions (Bowen et al., 2002; Keith and Stent, 2019). Interestingly, Keith and Stent (2019) demonstrate that analysing the language used by analysts during ECCs offers valuable insights into their decision-making processes. Specifically, their study provides evidence that analysts' linguistic choices can reveal their attitudes and perspectives, making ECCs a useful tool for predicting potential changes in analysts' forecasts.

Matsumoto et al. (2011) analyse the information content of ECCs, aiming to explain the factors underlying their informativeness. Firstly, ECCs are less formal and therefore subject to lower standards of legal liability compared to written filings. This reduced formality may encourage managers to disclose information that they might avoid providing in formal written documents. Secondly, as spoken communications, ECCs allow managers to offer expanded disclosures within a less structured environment, incorporating verbal cues that can carry additional informational value (cf. Mayew and Venkatachalam, 2009). Matsumoto et al. (2011) emphasize that managers often provide less financially focused and more future-oriented disclosures during ECCs, making them incrementally informative compared to earnings releases, which are typically past-oriented and heavily financial. This tendency is particularly pronounced when a company's performance is poor; in such cases, the presentation sections of ECCs offer greater incremental informativeness compared to the earning release. In addition to these aspects, the scholars highlight that the most significant benefit of ECCs arises from analysts' involvement during Q&A sessions. Analysts actively shape the content of management disclosures by posing targeted questions that elicit information managers might otherwise withhold – either because they are unaware of its relevance to the investing community or because they are reluctant to disclose it. For instance, managers may attempt to delay revealing negative information, but direct questioning from analysts often compels them to address these issues. For this reason, the discussion part of ECCs proves to be incrementally informative compared to the presentation part. Overall, Matsumoto et al.'s (2011) analysis demonstrates that while both the presentation and Q&A sections of ECCs are incrementally informative relative to earnings releases, the Q&A portion is particularly valuable, especially in instances of poor company performance.

4.4.2. ECCs as an argumentative activity type

4.4.2.1. The activity type of ECCs

ECCs can be conceptualized as an *activity type*, and as such these events can be characterized in terms of their interaction field and scheme.

The interaction scheme corresponds to the template, already detailed in the previous paragraph, of *presentation followed by a Q&A*, where one group of participants (in this case, financial analysts) asks questions on issues they deem relevant for their audience, and the other group (corporate representatives) provides answers. As discussed in §4.2.1,

the interaction scheme of an activity type specifies the rules governing the interaction and the allowed moves, these rules being part of the participants' common ground. In the context of ECCs, this means that participants are aware that corporate managers are required to present their results first, and after that, analysts are expected to ask questions, to which managers are then expected to respond. Interestingly, this interaction scheme is similar to that of *political press conferences* (see Palmieri et al., 2021; Lomelí Hernández, 2023; Lucchini et al., 2025). What differentiates the two activity types is the interaction field, which determines the institutional commitments, constraints, and goals of the participants. While ECCs and political press conferences share structural similarities, they differ significantly as they belong to different fields – the financial market in the case of ECCs and politics in the public sphere for press conferences (Lucchini et al., 2025) – which involve different commitments and interactional goals of the participants. In the case of ECCs, managers' and analysts' roles are determined by the functioning of the *stock market*: notably, managers run the company, controlling the asset on behalf of stakeholders and shareholders (Palmieri et al., 2015), while analysts act as information intermediaries representing investors in these exchanges[98].

4.4.2.2. The argumentative nature of ECCs

Earnings calls, as voluntary disclosures, simultaneously serve both an informational and a rhetorical objective. On the one hand, they aim to reduce informational asymmetry by disseminating relevant data to the investing community. On the other hand, they are inherently persuasive, as managers adopt a rhetorical stance to address an exigence – using Bitzer's (1968) terminology. Specifically, managers seek to gain and maintain investors' trust, a crucial element for ensuring continued investment in their business.

The activity type of ECCs has been recognized as *argumentative* in nature. As I already highlighted in §4.1.2, managers assume an argumentative stance when interacting with analysts, as they pursue a persuasive incentive trying to convince investors the company is worth-investing and that they are fulfilling their duties: "Aiming at persuading investors to buy or keep their shares, companies can use argumentation to communicate information strategically by favouring a particular inferential processing of the disclosed information" (Palmieri et al., 2015:123). Moreover, Palmieri et al. (2015) suggested that argumentation

[98] In this respect, financial analysts perform a role akin to that of journalists in political press conferences, as described by Lomelí Hernández (2023). This aspect will be discussed more in detail in §4.4.2.1.

represents an inherent aspect of ECCs and a key factor of their value for financial markets. More specifically, they propose that "the presence of argumentation can offer crucial underlying rationale to explain the informational relevance of ECCs", thus playing an *informational-relevant function* (Palmieri et al., 2015:123). As highlighted by Palmieri et al. (2015), the argumentations provided by corporate representatives offer analysts a foundation for critically evaluating the credibility of management's explanations, comments, and forecasts (Hursti, 2011) while also aiding in the detection of potential reporting biases (Fischer and Verrecchia, 2000). Moreover, such argumentations reduce uncertainty not only by addressing doubts and disagreements but also by highlighting the relevance of *previously disclosed information* as a premise for price-related standpoints (see §4.1.2).

Argumentation inherently emerges in situations marked by doubt and uncertainty around a question – what argumentation theory defines as an *issue*, aligning conceptually with Bitzer's notion of *exigence*. In the context of ECCs, the central issue concerns the *valuation of the company* (evaluative standpoint, see Fig. 28 in §4.3.2), and the overarching, implicit issue consistently present is whether the business represents a worthwhile investment (evaluative and practical standpoint). Subordinate to this overarching concern is another critical, though often unexpressed, question: whether the managers are acting in the best interest of investors by effectively maximizing shareholder value. These overarching and implicit questions form the backdrop against which the communicative exchanges in ECCs occur. While the primary issues remain generally implicit, more specific, hierarchically subordinate questions are explicitly raised and addressed during the calls. These specific issues often pertain to management's decision-making and strategy, such as whether a particular course of action was optimal in addressing a challenging situation, whether a specific business strategy is sound and sustainable, or whether a proposed investment represents the best path forward for the company. These subordinate issues are the focal points of argumentation on which participants argue, engaging in a critical evaluation of the company's performance and strategy.

In this context, it is fundamental to underline that argumentation in ECCs is not confined to specific discursive passages or moments where it is possible to identify a standpoint and one (or more) arguments. As I just discussed, during ECCs the main issues are overarching and generally implicit issues and are not addressed directly within

managers' or analysts' interventions. As it often happens in several argumentative arenas, argumentation is a continuous, implicit process: every contribution is *per se* argumentative, any assertion or action that carries an informational value can be interpreted – by the interlocutors as well as by researchers – as a premise for a conclusion. In this sense, in ECCs, very portion of text, including those that do not contain explicit argumentative connectives (i.e., argumentative discourse relations), a claim, or supporting arguments within themselves, is open to argumentative interpretation. In other words, any text may be interpreted – even purely descriptive or narrative sequences – as containing a set of premises relating to an underlying, implicit, and prominent issue. At a macro level, it can be said that everything is open to an argumentative reading. The discourse units in which an explicit and textually realized argumentation is present can be placed within broader inferential configurations and likewise reconnected to the overall argumentation of the call as a whole. In other words, within the text of an ECC, it is possible to identify argumentative passages in the strict textual sense as well as non-argumentative passages; however, at a broader and more general level, the entire call is overall argumentative. There is an inherent and generic argumentativeness to the text as a whole, which depends on the very nature of conference calls themselves. Indeed, as discussed above, there is always an underlying question concerning the evaluation of the company and its management, and every discursive act in this context contributes, more or less directly, to argumentation with respect to these issues.

4.4.2.3. Argumentative roles: ECCs as rhetorical triangles

Argumentative exchanges in ECCs are dynamic interactions primarily involving corporate managers and financial analysts. Managers take on the role of *dialectical protagonists*, advancing and defending their standpoints regarding the company's performance, strategies, and decisions. Analysts, in turn, assume the role of *dialectical antagonists*, critically examining and challenging the arguments presented by managers to test their validity and soundness. Interestingly, although analysts primarily assume the role of antagonists and are not required to defend a standpoint, research has shown that they often engage in argumentation in two distinct ways. First, analysts can explicitly advance standpoints that directly challenge those presented by managers, to critique and test the positions of corporate representatives (Palmieri et al., 2015). Second, analysts frequently justify their questions by providing arguments that underscore the relevance or

significance of the question itself. These justificatory moves serve to legitimize their inquiries and frame them as necessary and pertinent to the discussion (Palmieri et al., 2015; Lucchini et al., 2022; Lucchini et al., 2024; Lucchini et al., 2025). Interestingly, analysts can be characterized as fundamentally *dialectical arguers*. First, they use questions to elicit what managers know and think – that is, to bring to the surface their premises and standpoints. As Rigotti and Greco (2019:9) observe, "[b]oth premises and problems are seen as questions addressed by a questioner to an answerer in the framework of a dialectical interaction. In fact, questioning represents a specific trait of dialectics". As was discussed in §2.4.1.4, interrogative utterances are indeed not only indicators of the presence of an issue but often serve as indicators of premises. In this sense, the interrogative dimension of analysts' participation is not merely informational, but constitutive of the dialectical nature of the interaction itself. Second, analysts argue *ex concessis*, that is, by "deriving [their standpoint] from the propositions to which the other participant in the dialogue (the opponent) is committed" (Rocci, 2017:37). As underlined in §2.1.1, argumentation necessarily proceeds on the basis of shared premises. As Chapters 8 and 9 will show, analysts realize this *ex concessis* form of argumentation not only through the questions just mentioned, but also through the use of reportative markers, which attribute a proposition to managers and thereby characterize it as already accepted by the interlocutor.

However, these exchanges are not confined to the direct participants, as a silent third party plays a crucial role as the ultimate *judge* – or *kritès* in Aristotelian terms: the *audience*, consisting of investors and other financial stakeholders. This audience evaluates the dialogue to form opinions and judgments about the company's prospects and the credibility of its management. In the context of financial communication, this evaluative process translates into tangible actions, as investors "vote with their wallet" (Laskin, 2021) – that is, they express their judgment by making or withholding investment decisions. This triadic argumentative dynamic constitutes what can be defined as a form of *rhetorical triangle*.

4.4.2.4. ECCs as polylogues

Although these argumentative interactions can be mapped onto rhetorical triangles by adopting the protagonist-antagonist-kritès triplet, it is also evident that the audience of ECCs extends beyond these three roles. Each of these categories comprises multiple

individuals with diverse positions. As previously noted, ECCs are both polylogical and polyphonic; at this stage, they can also be characterized as argumentative polylogues.

While managers share a common overarching standpoint – namely, the valuation of the company they propose – analysts are similarly aligned in their critical incentive. However, analysts may hold differing opinions regarding the company and its evaluation, resulting in a multiplicity of positions at stake. Although analysts do not engage in direct exchanges with one another during the calls, as they are only permitted to pose questions to managers, they can indirectly address each other and support or challenge a colleague's interpretation. This interaction aligns with what Kerbrat-Orecchioni (2004) terms the *communicational trope* (see §4.2.2.2). Furthermore, as previously discussed, analysts, when posing their questions, partially speak on behalf of investors, as their objective is to elicit information that is relevant to investors, while simultaneously adopting a critical stance to demonstrate their competence and diligence.

As anticipated in §4.4.1, the audience of these public calls is not limited to analysts and shareholders. It also includes prospective investors, financial media, and meta-readers, all of whom form opinions on the issues at stake. Potential investors assess whether the company is a viable investment, while financial journalists and media outlets construct their own evaluations of the company, the market, and its various participants.

ECCs are also highly polyphonic, as managers and analysts frequently reference external documents and texts, quoting previous disclosures and statements. This practice serves strategic purposes for both parties: managers employ references to demonstrate consistency in their disclosures and positions, while analysts leverage them to enhance the credibility of their arguments and highlight the relevance of particular issues. Consequently, these dialogues contain numerous intertextual references, as will be further examined in Chapter 6. Moreover, discourse within ECCs is not only shaped by prior texts but also serves as a foundation for the creation of subsequent texts. As Crawford Camiciottoli (2010:352) underlines, "analysis of the earnings calls revealed considerable *manifest intertextuality* (Fairclough, 1992) through explicit reference to other texts, several of which were produced by the companies themselves within the wider context of financial disclosure". She identifies a "*genre chain of financial disclosure*" (in Fig. 30), highlighting how ECCs are connected to other genres; however, we must notice that this chain is limited to documents produced by the company itself that directly refer one to another.

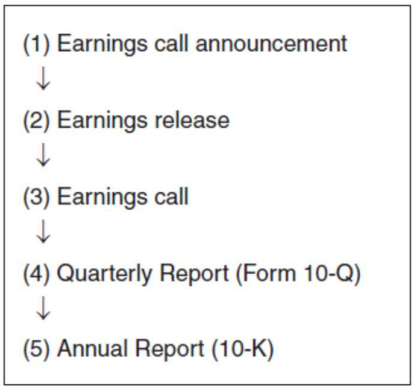


Figure 30. The genre chain of financial disclosure (Crawford Camiciottoli, 2010:353)

There are other documents, produced by other actors, which derive somehow from the calls. Analysts, for instance, produce investment recommendations based on the information disclosed during these calls. Even if they do not explicitly cite specific statements, the argumentative structure of their recommendations is undeniably informed by the content of the call, which provides premises for their reasoning and justifications. Similarly, financial articles that report on the company or its earnings call contribute evaluative perspectives on the discussed issues. Moreover, there are also texts and activity types that precede the calls and shape them. For instance, activist investors' campaign documents necessarily inform both management's decisions and course of actions as well as the calls' developments and interactions – for example, prompting analysts to ask question on it. Also, any other text and discourse that is relevant for the either the company or the market can be referred to during the calls, and become a topic for discussion or, from an argumentative perspective, a premise employed by the interactants.

Ultimately, ECCs represent a *polylogue within a polylogue*, exhibiting a high degree of intertextuality that underscores the interconnectedness not only at a textual-discursive level, but also at an argumentative one, showing an interaction of issues, standpoints, and arguments.

4.4.3. Participants' goals in ECCs

I shall now turn to describing more in detail the respective goals managers and analysts pursue during these events.

4.4.3.1. Managers' goals and incentives

Corporate representatives have a twofold objective during ECCs. On one hand, they must communicate the company's performance and future outlook while supporting an "optimally positive" valuation – one that is not only favourable but also sustainable in the long term. Indeed, while managers may be inclined to highlight more positive results, they must also balance this with transparency about negative developments; as Laskin (2021:3) points out, companies' executives "should be eager to disclose negative information as much as positive; information that can pull the stock price down as much as information that can push the stock price up." This cautious approach is necessitated by the risk of *overvaluation* (Jenks, 1948; Laskin, 2021), a condition in which a stock's market price is higher than its intrinsic or fundamental value. Overvaluation poses significant risks for firms, as it can lead to unrealistic market expectations that are challenging to meet, ultimately harming the company's credibility and long-term performance. In fact, firms' managements aim to meet, and potentially exceed, market expectations. Consequently, maintaining a balanced and sustainable valuation becomes a critical aspect of corporate communication during ECCs.

On the other hand, due to the agency relationship between managers and investors, managers are incentivized to demonstrate that they have effectively fulfilled their responsibilities. This often involves justifying their decisions and actions as being the most appropriate or optimal under the circumstances. Such justification becomes particularly critical when the company's performance results are negative, as managers need to reassure investors of their competence and commitment to safeguarding the firm's interests. By framing their behaviours and choices as deliberate and well-considered, managers aim to mitigate potential concerns from investors and maintain their trust, even during challenging periods.

4.4.3.2. Analysts' goals and incentives

Financial analysts, like managers, pursue multiple parallel objectives during ECCs, each shaping their interactions in distinct ways. Firstly, analysts aim to acquire valuable information during the call to accurately evaluate the company's performance and prospects. This includes leveraging the Q&A session to clarify uncertainties or seek additional insights. Indeed, following ECCs, analysts are responsible for producing investment recommendations for the investors they serve, providing guidance on whether to buy, sell, or hold assets. Consequently, they have the *incentive* to ensure the *accuracy*

of their assessments, as their professional credibility hinges on their ability to deliver well-informed and reliable evaluations. Asking targeted questions during the call is a key mechanism through which analysts enhance their knowledge base, enabling them to respond effectively to this incentive.

Secondly, analysts are driven by a *critical incentive*: testing managers' performance and challenging their interpretations or decisions. This role stems from the *agency relationship* between analysts and investors, whereby analysts act as agents safeguarding the interests of their investor-principals. To fulfil this accountability, analysts must demonstrate their competence, impartiality, and adherence to their fiduciary duties. Critically evaluating management's disclosures during ECCs is for analysts a way to fulfil this responsibility, ensuring that they uphold their role as representatives of the investing community (Koller and Wu, 2023).

These two incentives – obtaining information and critically challenging managers – are also closely connected to the central issue of ECCs (see §4.4.2.2), namely the *valuation of the firm*. Analysts must both test managers' standpoints and elicit relevant information in order to address the *evaluative issue* concerning the company's value and performance. In this sense, the interactional dynamics of ECCs are ultimately oriented toward reducing uncertainty around the firm's prospects and enabling a more informed assessment of its financial position. As already illustrated in §4.3.2, this evaluative dimension is crucial because it serves as the basis for justifying a superordinate *practical standpoint*, namely the *investment decision* itself. In their reports, analysts are expected to advise investors on whether to initiate, maintain, or withdraw an investment in the company. This recommendation constitutes a practical standpoint, which is in turn directly supported by the evaluative standpoint regarding the company's performance, prospects, and strategic choices. Accordingly, the informational and critical functions of analysts' questions are not ends in themselves but are subordinated to the broader argumentative goal of producing a justified investment recommendation.

However, analysts also face a third incentive: the need to establish and maintain a positive interpersonal relationship with managers, both during the call and over the longer term (Brown et al., 2014; Palmieri et al., 2015). This relational dynamic is linked to their informational goals, as access to firm-specific information often depends on the goodwill and cooperation of corporate representatives. In their study on analysts' professional identities in ECCs, Koller and Wu (2023) observe that analysts must craft professional

identities that are appealing not only to investors but also to managers. While fulfilling their critical role by asking probing questions, analysts must avoid appearing excessively adversarial, as this could jeopardize their relationship with management and, by extension, their future access to information. Koller and Wu (2023) further highlight the role of politeness strategies in managing these conflicting incentives. Analysts often adopt such strategies to strike a delicate balance: they can fulfil their duty to investors by critically engaging with managers' disclosures while simultaneously preserving a cooperative and professional relationship with management.

4.4.3.3. Comparing financial analysts' and political journalists' role as questioners

As highlighted above, analysts' role in ECCs is partially similar to journalists' role in political press conferences: both assume the role of *questioners* who question representatives – managers in ECCs and political figures in press conferences – acting as intermediaries on behalf of their respective audiences, investors and citizens. They pursue a twofold goal: on the one hand, they seek to elicit information that is relevant to their publics; on the other hand, they aim to hold their interlocutors – managers and politicians – accountable (Lomelí Hernández, 2021; Lucchini et al., 2025). On an argumentative level, both journalists and analysts function as antagonists to their interlocutors, challenging their standpoints and arguments in order to test their validity. As observed by Lomelí Hernández (2021), journalists may also, in some cases, advance standpoints that directly challenge politicians, whereas this is less common in the case of analysts.

However, there are some differences between them. A first key distinction lies in their institutional affiliations and responsibilities. While journalists are typically regarded as independent actors serving the broader public interest, analysts are bound by an agency relationship to investors. This means that analysts operate as representatives of the investing community, tasked with protecting investors' interests and providing them with the information necessary for informed decision-making. Their inquiries and analyses are thus influenced by this fiduciary responsibility, which adds a layer of accountability to their role. Moreover, analysts and journalists have different incentives. While the former aim to reach accurate conclusions about firms' valuation in their reports (*accuracy incentive*), operating within a field where investors' fundamental preferences are generally aligned and disagreements are primarily epistemic in nature, the latter focus on letting

political disagreements and controversies emerge (*eristic incentive*) within a public sphere characterized by divergent basic political preferences (Lucchini et al., 2025).

Fundamentally, analysts need to maintain a positive relationship with managers and therefore avoid being overly adversarial, as discussed in §4.4.2.1. By contrast, journalists have a clear incentive to adopt a more adversarial stance, for several reasons. First, journalism adheres to a principle of *objectivity as adversarialness*: "[t]o achieve factual accuracy and a balance of perspectives, journalists should actively challenge their sources, rather than being simply mouthpieces or ciphers for them" (Clayman and Heritage, 2002:29). In this sense, the adversarial stance assumed by journalists derives from their role as "watchdogs" and critics of public figures: they challenge their interlocutors in order to exert pressure and bring disagreements to the surface (Clayman and Heritage, 2002; Heritage, 2003; Clayman and Fox, 2017; Lomelí Hernández, 2023; Lucchini et al., 2025).

Moreover, as Clayman and Heritage (2002:30) underline, a more aggressive stance is also driven by career incentives: "successful journalists tend to be those who impart their own 'take' on events, and whose interpretations of the background and motivations of political actors are conveyed to the viewing public. […] this drives journalists to take a more adversarial stance towards politicians in both print and televisions." There are therefore concrete professional incentives for journalists to ask the "kind of questions that public figures are most inclined to dislike and resist".

For both analysts and journalists, questions constitute a pivotal means to reach their interactional goals, serving as a tool to gather information and to test their interlocutors' positions, pressing them to justify their accountability by defending their assessments and decisions. As D'Agostino et al. (2024b:107) highlight, "[m]ultiple strategies can be put in place to make a question more effective, that is, to enhance its likelihood of eliciting a reply maximally compliant with the type of answer that the questioner wished to obtain". Journalists and analysts, due to the different incentives they are driven by, will resort to different questioning strategies.

Journalists need to design their questions "to strike a balance between the journalistic norms of impartiality and adversarialness" (Clayman and Heritage, 2002:188), and in some cases they can assume an overtly adversarial – even hostile – stance toward the politicians-answerers. In this sense, journalists strategically formulate and tune their questions in order to make more or less adversarial, employing linguistic features including strategic uses of presuppositions and formulations, such as negative questions.

Analysts, by contrast, rarely assume an overtly aggressive position, given their need to maintain a cooperative relationship with managers: "[t]he Q&A [in earnings calls] is almost always nuanced, sometimes critical, but… rarely intentionally confrontational or combative" (Abraham and Bamber, 2017:26). Recent scholarship has investigated the features and strategies of analysts' questions (Palmieri et al., 2015; D'Agostino, 2022; Lucchini et al., 2022; Yaskorska-Shah and Rocci, 2022; Lucchini and D'Agostino, 2023; D'Agostino et al., 2024a; D'Agostino et al., 2024b; Lucchini et al., 2025; Rocci et al., 2024), analysing recurring question designs and highlighting how these are shaped by the constraints and incentives of the activity type. These studies show that analysts tend to avoid confrontational behaviour toward managers in ECCs, thus appearing less adversarial and more cooperative than journalists (D'Agostino et al., 2024b; Lucchini et al., 2025).

This does not mean, however, that analysts do not exert pressure on their interlocutors or strategically shape their questions to increase their effectiveness. Rather, they do so by resorting to strategies that, while constraining the answerers' possibilities, avoid being explicitly aggressive:

> To model effective questions, analysts need to concoct tactics that are functionally equivalent to adversarialness but rooted in distinct mechanisms, since their role discourages them from showing any confrontational attitude; such tactics modulate what we call the cornering quality of questions. The idea is that "to corner" means to constrain the set of possible moves and to limit the ability to perform evasive maneuvers; thus, cornering questions constrain what counts as a valid answer and are difficult to evade. (D'Agostino et al., 2024b:107)

Accordingly, analysts employ a range of linguistic and rhetorical strategies in designing their questions in order to obtain relevant information on issues they consider important. Although analysts' questions are almost never adversarial, they can nevertheless be cornering and exert pressure on managers by compelling them to respond. To make questions more difficult to evade, a variety of strategies can be employed. Two strategies that are particularly relevant for the present study, and that will form a central part of the analysis in the following chapters, are *prefaced questions* and *accusations of inconsistency*.

4.4.3.3.1. Prefaced questions

Prefaced questions are particular interrogative constructions in which a question is preceded, followed, or embeds a prefatory assertion (a *preface*) which conveys information related to question itself (Lucchini et al., 2022; 2025; Clayman and Heritage, 2002). Prefaced questions can be regarded as a conventionalized discourse pattern (Östman, 2005) that routinely emerges in institutional questioning contexts such as ECCs and political press conferences, reflecting the constraints and incentives that structure these activity types (Lucchini et al., 2025). An example is provided in (26):

(26) Eric Handler: And then secondly, you know, *it looks like the hot new consumer product out there is NFTs. And given that you have a lot of collectible business*, have you thought much about what might make sense in the NFT business? (HAS_Q1_2021)

In the example, the preface introduces contextual information about the growing relevance of NFTs and their possible connection with the company's collectible business, thereby establishing the topic and motivation for the subsequent question.

In studies of journalistic interviews and press conferences, Clayman and Heritage (2002; see also Heritage, 2003) note that such prefatory statements perform a twofold function: they provide contextual background that makes the question intelligible to the audience and establish its appropriateness by supplying a motivational context for the inquiry. At the same time, prefaces may also shape the response space by limiting the range of acceptable answers. For instance, they can introduce a presumption or preference for a particular answer (preface tilt) or frame the issue critically, for example by presenting problematic information or highlighting potential inconsistencies (preface hostility).

Previous studies highlighted that prefaces work as arguments that justify the question, supporting the acceptability of their questioning speech acts and to commit the respondent to provide a satisfying answer (Palmieri, 2015; Lucchini et al., 2022; Lucchini et al., 2025). From an argumentative perspective, prefaced questions can therefore be understood as a contextual specification of a general argumentative pattern described by Hitchcock (2019, 2020), according to which a question may function as the conclusion supported by premises aimed at showing that it is correct to ask the question and that the question requires an answer. In this framework, the preface provides the premises supporting an illocutionary standpoint – namely, that the performance of the questioning speech act is felicitous (Lucchini et al., 2022). More specifically, prefaces may justify the question in

different ways: by framing an issue that requires clarification or resolution (for instance, by highlighting a discrepancy between statements or facts), by signalling that there are grounds to infer a proposition whose confirmation or disconfirmation is requested, or by providing reasons to infer a proposition that constitutes part of the question's content or one of its preparatory conditions (e.g., ambiguity as grounds for a request for clarification). This pattern and its argumentative and inferential configuration will be discussed more in detail in Ch. 6, §6.4.3.1, and Ch. 9, §9.2.1.

By introducing relevant information and articulating the grounds on which the question is based, prefaces establish the legitimacy of the question and make it more compelling for managers, while at the same time constraining the range of acceptable responses and making the question more difficult to evade.

4.4.3.3.2. Accusations of inconsistency

Among the "markedly hostile questions", Clayman and Heritage include the category of *accusatory questions*, which they consider as functioning less as genuine requests for information than as rhetorical devices aimed at delivering criticism. These questions typically take forms such as "*Why did you X*?" or the more adversarial "*How could you X*?", and they are frequently reinforced by prefatory statements that frame the issue and make explicit the interviewer's critical stance.

According to their analysis, the most elaborate form of hostile questioning occurs when interviewers construct interviewees as involved in disagreement or self-contradiction: "perhaps the most elaborately hostile questioning that news interviewers can engage in involves constructing interviewees as enmeshed in some form of disagreement or self-contradiction" (Clayman and Heritage, 2002: 226-227). This strategy can take two main forms: interviewees may be presented either as being in disagreement with their political allies or as holding positions that are inconsistent with their own previous statements or actions. The first case, highlighting disagreement with allies, named *split*, is particularly characteristic of the British political context, where loyalty to the party line is treated as an important political norm.

A second strategy is that of *forks*, which consist of disjunctive questions that compel interviewees to choose between alternatives that are all undesirable thereby placing the politician in an uncomfortable position and constraining the range of acceptable responses. As described by Clayman and Heritage, these questions typically present two (or more)

options, each of which carries negative implications for the interviewee. By structuring the question in this way, the interviewer effectively forces the politician to select between politically damaging alternatives or to resist the premise of the question altogether. In either case, the format increases the adversarial pressure of the exchange and makes it difficult for the interviewee to provide a response that avoids accountability. Forks therefore function as a strategic device through which journalists can challenge political actors while maintaining the formal appearance of asking a question. lastly, *contrasts* involve juxtaposing statements, actions, or evidence in order to suggest that the interviewee's position is self-contradictory, incorrect, or incompatible with the available facts, typically through a prefatory formulation that reports the allegedly conflicting commitments. Finally, interviewers may combine the split and contrast formats, where the conduct or statements of the interviewee are contrasted with those of a political ally.

The contrast format has received attention in argumentative investigations of political discourse, particularly in studies of political interviews and parliamentary debates by scholars as Andone and Mohammed (Andone, 2008; 2009; 2010; 2013a; 2013b; Mohammed, 2009; 2010; 2018), who analyse these moves under the label "*accusations of inconsistency*". In these studies, questions that highlight a discrepancy between a politician's statements, actions, or commitments are interpreted as argumentative moves through which the interviewer attributes incompatible commitments to the interviewee and challenges them to account for the (apparent) contradiction.

As Andone notes, pointing out that a politician has taken a position that contradicts either his own previous statements or his actions is a form of criticism frequently used by interviewers. In political interviews, interviewers certainly aim to obtain information from their interlocutors; however, their questions often require politicians to clarify and justify their views before the broader audience, which is in fact the primary addressee of the interview. Because audiences tend to value political consistency – both consistency with one's own past commitments and with the party line – highlighting an inconsistency becomes an effective way of pressing politicians to account for the discrepancy.

From a pragmatic perspective, "accusing someone of something amounts to performing an assertive illocutionary act implying that the speaker commits himself to the truth, or more generally, to the acceptability of the proposition expressed and is supposed to have good grounds for putting it forward" (Andone 2013a: 15). In this respect, accusations are designed to prompt a response from the accused party. As noted by Andone, three basic

conditions of the act of accusing have been described by Kauffeld (1998: 252): a speaker must "(i) state her charges by saying that some other party (accused) did x, implying that the speaker believes it may be wrong of accused to x; and (ii) demand that accused or accused's representatives answer the charge by way of a denial, admission of guilt, justification, excuse, etc.; and (iii) act as if she intends that the charge and her demands provide her addressee with reason to answer to her charges".

Accordingly, an accusation requires the accused to answer for an alleged offence by providing reasons in response to the charge. More specifically, accusations of inconsistency attribute to an opponent a commitment to two incompatible propositions (p and not-p) and challenge the opponent to provide an answering response. The inconsistency may concern two propositions, but it may also arise between a proposition and an action, or between a position and the values or principles that the politician is assumed to endorse; in some cases, the inconsistency may even be indirectly entailed rather than explicitly stated. In this framework, the speech act of accusing someone of inconsistency can be described through a set of conditions, described by Andone (2013a):

> *Essential condition*: an accusation of inconsistency counts as raising a charge against an addressee for having committed himself to both p and ¬p (or informal equivalents thereof) in an attempt to challenge the addressee to provide a response that answers the charge.
>
> *Propositional content condition*: ascription to the addressee of a commitment to both p and ¬p (or informal equivalents thereof).
>
> *Preparatory conditions*:
>
> a. the speaker believes that the addressee who is inconsistent will accept that an inconsistency is indeed at issue;
>
> b. the speaker believes that the addressee will acknowledge that the presence of an inconsistency obstructs the argumentative exchange in which the interlocutors are engaged;
>
> c. the speaker believes that the addressee will take on the obligation to provide a response that answers the charge of inconsistency.
>
> *Sincerity conditions*:
>
> a. the speaker believes that the addressee is inconsistent;
>
> b. the speaker believes that the presence of an inconsistency constitutes an obstruction to the exchange in which the interlocutors are engaged;

c. the speaker wants the addressee to respond in such a way that he answers the charge.

The preparatory conditions in particular highlight the importance of the accused party's acknowledgement of the inconsistency and of the uptake of the duty to respond: if the accuser does not assume that the addressee will recognise the inconsistency and its problematic status, and will answer to the charge, the accusation would lose its point. For this reason, accusations of inconsistency are typically formulated in ways that make the alleged contradiction difficult to deny, often by means of prefatory statements that explicitly present the allegedly inconsistent statements or actions before the question itself. In this sense, an accusation of inconsistency forces the interlocutor to respond on the merits of the charge. As Andone (2013a:19) explains, drawing on the work of Kauffeld, an accusation inherently creates an obligation to answer: "as Kauffeld explains, an accusation always requires the accused to answer for an alleged offence and 'the accuser must openly speak with an intention which resembles the purpose speakers have in asking questions' (1998:252). Kauffeld is of the opinion that the answer should tell why the accused acted as alleged' (1986:105)". In this way, accusations of inconsistency function as a powerful argumentative device, since they compel the addressee not merely to respond, but to provide reasons that explain or justify the apparent contradiction.

From an argumentative perspective, this speech act can be further clarified through analytical principles proposed in the Pragma-Dialectical framework. First, the principle of *functionalization* highlights that an accusation of inconsistency is advanced through, and in response to, the performance of another illocutionary act, typically the advancement of a standpoint. From this perspective, the accusation is viewed as part of an argumentative exchange conceived as a discussion in which standpoints are defended and criticised; the accusation thus performs the function of expressing criticism with regard to the standpoint advanced by the accused party. Second, the principle of *socialization* stresses that such accusations occur within a dialogical context involving at least two participants and often an additional audience. In genres such as political interviews, for instance, the accusation is addressed to the interviewee but simultaneously oriented toward a third-party audience who evaluates the exchange. Third, the principle of *externalization* makes it possible to analyse accusations of inconsistency as discursive acts that create explicit commitments for both speaker and addressee, commitments for which they can subsequently be held accountable. Finally, the principle of *dialectification* frames accusations of inconsistency

as moves within a critical testing procedure aimed at assessing the reasonableness of standpoints. Within the Pragma-Dialectical perspective, inconsistencies constitute obstacles to the resolution of a difference of opinion and pointing them out forms part of the effort to remove this obstacle (Andone, 2013a).

As just discussed, an accusation of inconsistency is considered to serve a twofold argumentative function: it both advances the speaker's standpoint and challenges or counters the interlocutor's standpoint. Mohammed (2010:60-61) emphasizes that "when accusations of inconsistency are employed in an attempt to rule out a standpoint, the arguer is assumed to attempt to lead the allegedly inconsistent opponent to retract the commitment entailed in his current position, rather than retract the commitment attributed to him based on the previous position". In other words, an accusation of inconsistency is a strategic move aimed at prompting the interlocutor to withdraw or revise their latest standpoint on the grounds that it conflicts with a prior commitment, thereby resolving the tension between incompatible positions and advancing the accuser's argumentative goals.

As widely discussed above, financial analysts do not usually assume an openly adversarial stance toward managers during ECCs, as they need to safeguard their relationship with firm representatives. Nevertheless, in order to put pressure on managers and obtain clarification on sensitive matters, analysts may confront their interlocutors with problematic issues or highlight potential inconsistencies between statements, or between statements and actions. In this respect, analysts may resort to a strategy comparable to the accusations of inconsistency employed in political interactions, although its interactional realization in ECCs tends to be less overtly confrontational than in political journalism. Example (27) below, which will be analysed in greater detail in Chapter 9 (§9.2.2.2.2), illustrates this strategy:

(27) Jernej Omahen (Analyst Goldman Sachs): Thomas, I listened to your opening statement very carefully. And I managed to find one of the passages that you quoted in this report that you published today. And ***it says here and you quoted is that this is not a situation where the business and risk personnel engaged in fraudulent or illegal conduct, nor is one where the architecture of risk controls and processes was lacking, or the existing risk systems failed to operate sufficiently to identify critical risks***. And I just wonder how that tallies with the bulk of what you have been communicating today. Because ***one of the key communications that I understood is that Credit Suisse immediately changed, for example, the way you margin in your prime brokerage, went from static to dynamic***, and yet the report seems to suggest that systems are fine. Is that correct? (CS_Q2_21)

In this example, the analyst presents an apparent inconsistency between earlier statements by the manager – quoted in the preface of the question – and information that emerged from the corporate communication during the call. By juxtaposing these two elements, the analyst constructs a contrast that implicitly invites the manager to reconcile the two accounts. As will be discussed in more detail in Chapter 9, the use of accusations of inconsistency in ECCs diverges in important respects from their use in political interviews. Journalists, as observed above, often formulate such accusations explicitly in order to put the criticism "on the record" and publicly challenge the politician. Financial analysts, by contrast, tend to exploit the presentation of an apparent inconsistency primarily as a justification for the question and as a resource for eliciting further information or clarification about delicate issues. Consequently, analysts frequently frame their questions in a less confrontational way. Rather than directly accusing managers of inconsistency, they may ask how two statements, or a statement and a subsequent action, can be reconciled, thereby presupposing that the contrast might only be apparent. In this way, the inconsistency is framed as a puzzle that requires clarification, which mitigates the accusatory force of the move and reduces the potential threat to the relationship between analyst and management. Moreover, confrontational questioning strategies, including accusations of inconsistency, are relatively rare in the genre of ECCs (see §9.2.2) and tend to occur primarily in situations of corporate crisis, where analysts have stronger incentives to probe managerial accounts more critically (Koller and Wu, 2023).

4.4.4. Knowledge management in ECCs

Central to this study is the examination of how participants manage knowledge in ECCs – specifically, how managers and analysts display, represent, and negotiate knowledge and their sources within the dialogue. As discussed in §4.1.1, information plays a pivotal role in financial communication, serving as the foundation for decision-making processes in finance. Notably, data provide the material basis for reasoning and argumentation, underscoring their importance in these interactions. A fundamental challenge in finance arises from the intrinsic informational asymmetry between insiders (e.g., corporate managers) and outsiders (e.g., analysts and investors). This asymmetry is a key issue addressed by financial disclosures, including ECCs. In this context of inherently asymmetric dialogue, the centrality of knowledge and information becomes evident. The first hypothesis of this work is that such informational asymmetry can be identified and

analysed by observing how participants frame and manage their knowledge within the discourse.

Moreover, the ways in which managers and analysts represent their knowledge and refer to information sources are not merely descriptive but deeply strategic, aligned with their respective interactional goals. Managers, for instance, have a strong incentive to portray themselves as knowledgeable and well-informed. By doing so, they signal to the investing community that they are competent stewards of the company, capable of making informed decisions and overseeing operations effectively. This representation not only reassures investors that they fulfil their supervisory duties but also positions managers as trustworthy sources of information, thereby bolstering the credibility of their disclosures.

Analysts, on the other hand, face a dual challenge. They must demonstrate to both managers and investors that they are well-informed experts[99], capable of drawing reasonings and conclusions (Koller and Wu, 2023) and delivering sound recommendations. This reinforces their reputation as reliable intermediaries whose evaluations and insights are worth trusting. Simultaneously, analysts must tactically highlight informational gaps in their understanding to justify their questions and investigative efforts. By emphasizing these gaps, analysts frame their inquiries as essential to fulfilling their evaluative role, subtly reinforcing their expertise while negotiating for more detailed disclosures.

This intricate interplay of knowledge representation and negotiation in ECCs reflects the broader strategic dynamics of financial communication, where information asymmetry and trust are critical drivers of interactional behaviours.

[99] This constitutes another difference with journalists who, in turn, do not claim any specific domain expertise and consider themselves as generalist information intermediaries (Lucchini et al., 2025)

5. Interlude

Before proceeding to the second part of this dissertation, which presents the methodology (Ch. 6) and discusses the analysis of the results (Ch. 7-9), it is useful to summarize the key points discussed thus far and to restate the research questions guiding the analysis.

5.1. Summing up

The previous chapters laid the theoretical foundation for this study, outlining the framework for argumentative analysis (Chapter 2), the linguistic dimension under scrutiny – evidentiality – (Chapter 3), and the communicative context of financial communication (Chapter 4).

Chapter 2 introduced the notion of *argumentation* as the central theoretical and analytical lens for this research, with a specific focus on the Pragma-Dialectical approach and its integration with the Argumentum Model of Topics. This was contextualized through a conceptual-historical overview of the development of argumentation theory.

In Pragma-Dialectics, argumentation is defined as a *"communicative and interactional act complex aimed at resolving a difference of opinion with the addressee by putting forward a constellation of propositions for which the arguer can be held accountable in order to make the standpoint at issue acceptable to a rational judge who judges reasonably"* (van Eemeren, 2018:3).

Among the analytical tools introduced within this framework, two notions are particularly central to this work: *argumentative indicator* and *argumentative pattern*.

Argumentative indicators are defined as linguistic cues that help identify the argumentative move being made. According to the literature, these include verbal elements, words, expressions, or phrasing of argumentative moves, as well as pragmatic, dialogical, and logical-inferential aspects of discourse. Rather than constituting a fixed class of linguistic items, the concept of an "argumentative indicator" can thus be interpreted as a *function* that a linguistic element may acquire or fulfil within a given discursive context. This study focuses on lexical argumentative indicators, namely, the argumentative function of specific constructions with a lexical core.

The second pivotal concept is that of *argumentative patterns*, also developed within the Pragma-Dialectical framework. However, as anticipated in Chapter 2 and as it will be

further detailed in Chapter 6, this dissertation adopts an expanded notion of argumentative patterns.

Lastly, Chapter 2 introduced the *Argumentum Model of Topics* (AMT), which is employed for the analysis of inferential configurations and will be used in Chapters 8 and 9 to unravel the micro-argumentative functions of evidentials and the inferential configurations underlying the evidential argumentative patterns under investigation.

Chapter 3 was devoted to the category of *evidentiality*. It offered a review of the key contributions to the study of evidentials, clarifying differing perspectives on their definition, classification, and function. Drawing from this literature, a functional – rather than grammatical – definition of evidentiality was proposed: evidentials are markers whose primary function is to indicate the *mode of knowing*, i.e., how a speaker knows something.

The relationship between evidentiality and *epistemic modality* was discussed, with the argument that while the two categories can overlap, they remain distinct. Evidentials can also carry secondary meanings, beside epistemic modality: epistemic authority and rights, epistemic access, and various forms of (inter)subjectivity. In interaction, evidentials function as *epistemic stance resources*, with significant pragmatic effects on participant positioning.

The final section of Chapter 3 focused on previous work that explores the argumentative role of evidentials. It was noted that evidentials can fulfil both macro- and micro-argumentative functions: they may signal argumentative discourse relations and, at times, function as arguments themselves by providing supporting evidence for the acceptability of a proposition. In the analytical part of this dissertation, I aim to further explore this dual function and the relationship between the micro- and macro-levels. A quantitative analysis primarily focuses on the macro-argumentative level – examining the occurrence of evidentials within argumentative moves – and will be complemented by an in-depth qualitative analysis of the micro-argumentative functions of evidential frames based on the AMT model.

Chapter 4 shifted the focus to the context of *financial communication*, describing its nature, aims, and communicative dynamics. The goal was to frame the specific interactional setting examined in this study: *earnings conference calls* (ECCs).

Two main aspects were emphasized: the *informative goal* of financial communication and corporate disclosure, and its *rhetorical and argumentative* dimensions. The chapter discusses how financial discourse involves strategic argumentation, particularly within ECCs. The final section of the chapter analysed this communicative event through the lens of Rigotti and Rocci's (2006) model of the communication context, characterizing ECCs as an institutional genre within financial disclosure. These interactions are inherently argumentative, with participants, managers and analysts pursuing goals that are at times aligned and at times conflicting. In this context, the strategic representation and management of knowledge become central, shaped by the specific roles and constraints of each participant.

5.2. Recalling the Research Questions

The next part of this dissertation will be devoted to analysis and discussion, grounded in the theoretical framework developed thus far. Before presenting the data and methodology and moving into the analytical core of the work, I restate here the research questions that guide the investigation.

At a general level, this study aims to investigate the pragmatic and argumentative functions of evidentials in earnings conference calls, examining their role as argumentative indicators and their use as strategic rhetorical devices. More specifically, the research addresses the following questions:

1. ***How are evidentials employed in earnings conference calls by managers and analysts?***

This overarching question entails a twofold investigation. First, a quantitative analysis of evidential distribution in managers and analysts' turns, to answer two sub-questions:

1.1. How are evidentials distributed across managers and analysts?

1.2. Is there a correlation between the type of evidentials and the speaker's role?

Second, a qualitative analysis examining whether the use of evidentials is strategic, i.e., related to participants' goals in interaction:

1.3. How does the use of evidentials relate to speakers' interactional goals and incentives?

This involves assessing the functions of evidentials and how they reflect participants' communicative objectives and constraints:

2. ***To what argumentative moves and argumentative patterns are evidentials related?***

Following the general observation of distribution and function, the focus shifts to the argumentative role of evidentials. This includes verifying the hypothesis that evidentials act as argumentative indicators, correlating with specific argumentative moves and argumentative patterns identified through analysis. The emerging concept of *evidential patterns*, argumentative patterns characterized by the presence of evidentials, will be discussed in detail, including their various types and functions.

3. ***How are the uses of evidentials, in relation to moves and patterns, connected to the features of the activity type of earnings calls?***

After correlating evidentials with argumentative structures, the analysis turns to the activity type itself. This question investigates whether the observed uses of evidentials are linked to the institutional goals, constraints, and dynamics of ECCs. The patterns identified are analysed in light of the participants' communicative strategies and institutional positioning.

In addition to these empirical questions, a broader theoretical question emerged during the course of this research:

4. ***How are activity type, argumentative indicators and argumentative patterns related?***

This question entails a theoretical reflection on the interrelation between these three categories. Specifically, it concerns the role of argumentative indicators in defining patterns and the extent to which specific argumentative patterns can inform our understanding of an activity type. Clarifying these relationships will contribute to a better grasp of argumentation in context and offer methodological insights for its investigation.

6. Data and Methodology

This chapter presents the dataset on which this dissertation is based, as well as the analytical tools developed and applied in the study. The first part (§6.1) introduces the corpus, outlining the criteria behind the selection of companies and the rationale for focusing on their earnings conference calls. It also describes the initial stages of data preparation, including transcription revision, preprocessing, and the annotation of preliminary layers. The second part of the chapter (§6.2) introduces the notion of *epistential frame*, developed on the basis of previous literature, and the taxonomy of evidentials adopted, along with the dedicated annotation scheme and procedure designed and applied in this study. Finally, §6.3 turns to the analytical tools employed for the study of argumentation, presenting the various steps undertaken in the argumentative analysis. Lastly §6.4 proposes a refined conceptualization of *argumentative patterns*, developed specifically for this work, and its methodological implementation.

6.1. Corpus

The empirical material for this study consists of the Q&A sections of sixteen ECCs, held by four publicly listed companies, Airbnb, DoorDash, Shell, and Credit Suisse, across the four financial quarters of 2021. This corpus follows a *thematic case-study logic*: the companies were selected on the basis of the fact that all of them were, indeed, facing challenges that created a high level of uncertainty, in addition to the pandemic, which represented a shared issue for the global financial market. Specifically, Airbnb and DoorDash were both newly listed companies at the time, and as such were still in the process of establishing credibility and market stability and had a higher level of uncertainty (Damodaran, 2017). In contrast, Shell and Credit Suisse were navigating reputational and structural crises; Shell was facing sector-wide disruption due to the ongoing pandemic, while Credit Suisse was dealing with the internal consequences of the Archegos and Greensill scandals. In reason of these high-uncertainty scenarios, the four companies selected are different yet comparable cases, and constitute an instance of what Garfinkel (1996) terms a *perspicuous setting* for examining evidentials and investigating how participants signal, represent and manage knowledge in interaction.

Transcripts of the ECCs were obtained from publicly accessible financial databases and revised by research assistants for accuracy, drawing on the corresponding audio recordings made available via the companies' official investor relations webpages.

Given the formalized structure of ECCs already discussed in Chapter 4 (see §4.4.1), the Q&A sessions were clearly delineated and easily extractable. Each call follows a standardized format wherein an operator introduces each financial analyst prior to their turn. These operator turns, being formulaic and not relevant to the interactional dynamic under investigation, were systematically removed. The resulting corpus contains only the substantive turns from analysts and corporate management. To facilitate systematic annotation and analysis, all transcripts underwent a series of preprocessing and annotation steps. An *ad hoc* preprocessing algorithm was developed[100] to normalize the text and segment it into coherent units, as well as to automatically identify and tag speakers by role (analyst or manager). Following this, the data was manually annotated by trained annotators[101] using the INCEpTION platform (Klie et al., 2018). The annotation process followed a multi-step and multi-layer annotation process based on an annotation scheme documented in a dedicated annotation manual (Lucchini and D'Agostino, 2023), which was iteratively refined through team-based consensus.

A preliminary step of annotation, carried out by the above-mentioned annotators, involved two layers. The first was meant to capture *dialogue moves*, which distinguished between *questions*, *answers*, and *prefaces* (i.e., contextualizing remarks preceding a question). Questions were further classified for two features: *prefaced*, to annotate the presence of a preface connected to the question, and *question type*, distinguishing *open*, *yes/no* and *closed-list* questions. The second layer involved the categorization of *request types* and *subtypes*, based on a taxonomy grounded both in a priori theorization of the ECC as an institutional interaction genre and in the recurrent phraseology and lexical patterns used by participants (Palmieri et al., 2015; Rocci and Raimondo, 2018). Inter-annotator agreement was assessed using standard metrics. During both the training phase and subsequent rounds of annotation, Cohen's Kappa (Cohen, 1960) scores for all features was consistently substantial ($K > 0.60$), and for the second layer (request type) it was even

[100] The algorithm was developed by Dr. Giulia D'Agostino within the research project to which this dissertation pertains (§1.1). I gratefully acknowledge her contribution and support in making this component of the analysis possible.

[101] I would like to gratefully acknowledge the contribution of the student annotators who participated in the manual annotation of the corpus, namely Giada Motta, Marta Benzoni, Fiona Fraholli, Alessia Scaltrito, Laura Pessina and Giacomo Romagnoli. Their careful work was essential to the development of the dataset used in this study. Part of the annotation and the curation of the annotated corpus was also conducted by Dr. D'Agostino and myself in the context of the Margumentative pattern research project.

consistently above the conventional threshold for substantial agreement, reaching K = 0.80 on the primary subset of annotated texts.

Building on this preliminary annotation, two additional layers, specifically developed for the present study, were annotated: a layer for *epistential frames*, discussed in §6.2 (see §6.2.3 for annotation details), and a layer for *argumentative moves*, presented in §6.3.1.

6.2. Studying epistemicity in dialogue: annotating *epistential frames*

In this section, I turn to presenting the framework adopted in the study of evidentiality in financial dialogues, illustrating the notion of *epistential frames* (§6.2.1), the taxonomy developed (§6.2.2), and the annotation scheme designed for the study (§6.2.3).

6.2.1. Definining Epistential frames

The term "epistential" as already discussed in §3.1.2.3, was introduced by Martina Faller, while the term "frame" is inspired by Miecznikowski's (2020) notion of *evidential frame*, although the conception adopted in this work differs from hers in some regards (see §3.2.3 and §6.2.2).

Faller (2002:87) used the term *epistential* to indicate "an element that expresses evidentiality and epistemic modality simultaneously". In the present work, however, this term is used to indicate an umbrella category including expressions that carry either an evidential or an epistemic modal function, or both at the same time (for Faller's conception, only the latter case would count as "epistentials"). This redefinition is due to a specific need of this research: the aim is to observe in the interaction between analysts and managers in ECCs how knowledge is strategically used by identifying the expressions employed to indicate and characterize knowledge attribution and sources. In this sense, the extended notion of epistentials serves two main goals.[102] Firstly, in the over-arching research project this study is part of, I am interested in both dimensions and in identifying expressions that have an evidential and/or an epistemic modal function, thus not limiting to one or the other category nor to the cases where the two values are simultaneously present. Moreover, I opted for an onomasiological and corpus-based approach, meaning

[102] A terminological clarification is in order regarding the use of the label *epistential*. Although the more general hypernym *epistemic* – as used in the sense of Boye's notion of epistemicity or in relation to epistemic stance-taking – might have provided a more straightforward alternative, the term *epistential* is retained to avoid potential ambiguity with the broader and more established category of *epistemic modality*.

that instead of relying on literature-derived dictionaries I proceeded identifying in the corpus expression having an evidential or epistemic modal function. As it is often challenging to disentangle the two categories (cf. §3.1.) and determine whether one or both are expressed, a functional annotation strategy is likely more reliable if it covers the entire dimension, thus avoiding the exclusion of any case *a priori*.

As anticipated in Ch. 3 (see §3.2.3), Miecznikowski (2020) defines *evidential frames* as connections "between to-be-asserted propositions and their information sources", where information source is "an experience by the cognizer and speaker (S) that takes place before the speech event, or simultaneously, and results in the acquisition of a proposition p by S" (Miecznikowski, 2020:45). I adopt this term to indicate that epistentials create predicate-argument structures representing an epistemic experience or status.

Extending the analysis to include also expressions of epistemic modality, I define epistential frames as semantic structures in which an epistential predicate, or operator, denotes an experience of knowledge acquisition or an epistemic status and takes three arguments: the knowing subject (the *cognizer*), the propositional content under the operator's scope, representing the fact or aspect of reality that is known (the *scope*), and the *source*, namely the specific information based on which the cognizer accesses that content.

As discussed in §3.2.3, an important difference with Miecznikowski's framework concerns the identity of the cognizer, which I see as the person (or group of people) to which is attributed an epistemic state through the use of an epistential expression, be it the speaker, the addressee, or a third party. It was necessary to broaden the notion of the cognizer as the analytical focus of this work goes beyond characterizing the speaker's own knowledge. Evidential and epistemic expressions in fact are examined to trace the broader negotiation of knowledge within the dialogue, including attributions of knowledge to other participants.

6.2.2. A taxonomy for evidentials in ECCs

As will be clarified in the next section (§6.2.3), the annotation scheme includes both the dimension of evidentiality and epistemic modality type. In the present dissertation, however, I mostly focus on the dimension of evidentiality and how different types of evidentiality are strategically mobilized and employed by managers and analysts, also in

relation to their argumentative strategies. For this reason, I developed and adopted a taxonomy of evidentiality tailored specifically to this activity type and suitable to be implemented in a corpus- and annotation-based approach. I distinguish five modes of knowing: *Direct*, *Hearsay*, *Inferential*, *Common knowledge* and *Subjective*. The categories of *direct*, *hearsay* and *inferential* correspond to the three main types present in the literature (cf. §3.3.2).

6.2.2.1. Direct

Direct evidentials encompass all the expressions that represent a piece of knowledge as acquired through sensory perception, also including certain non-literal uses of visual verbs. As already discussed in §3.3.2.3, in finance, indeed, much information discussed is abstract and non-material, and thus non perceivable. Nonetheless, speakers very often characterize this kind of information as perceived through senses, especially sight. In some cases, this apparent mismatch can be solved by interpreting the visual verb as an inferential evidential (see §3.3.2.3). In other cases, it emerges that they are used with a non-literal, extended meaning, encoding an empirical process of knowledge acquisition, in which sight plays a role. Within the taxonomy of evidential values developed for this research, perception verb constructions were categorized as direct when (a) a conceptual relation with perception could be established, straightforwardly or via metaphoric and metonymic extensions, and (b) the co-text did not contain arguments or other "clues" suggesting a high relevance of inference as a mode of knowing.

In the two examples below, the pieces of information in the scope of the verb "to see" (respectively, the presence of "elevated traffic levels" and "continued positive momentum") cannot *per se* be perceived visually:

(28) Brian Chesky (ABNB CEO)
Now while the results are still early, as I said, *we have seen* elevated traffic levels. (ABNB_Q1_21)

(29) Dave Stephenson (ABNB CFO)
[…] *we're just seeing* continued positive momentum (ABNB_Q1_21)

In (28), "*we have seen*" can be interpreted as a perceptually grounded direct evidential that encodes an empirical process of knowledge acquisition in which sight plays a role in various ways. Although traffic levels are not directly visible as entities in the environment, knowledge about them is derived from observable events, namely, actual flows of traffic,

recorded through measurement techniques. The verb *to see* seems to undergo a synecdochic extension to globally describe this process of observation, data acquisition, and interpretation, and frame the information as perceptually warranted. Moreover, it is plausible that the company's management visually inspected the data once elaborated in graphical form, such as charts or dashboards; this warrants further extensions, both metonymic (the reading of a document being related to the facts described in the document by a complex chain of human actions) and metaphoric (since certain graphic representations in economy and finance are iconic signs bearing similarities to the phenomena they describe). In this sense, *to see* maintains multiple connections to the sensory domain even if the perception it invokes is technologically mediated.

In (29), while "positive momentum" is an evaluative concept, it characterizes an observable situation such as ongoing business performance or market activity. "We're […] seeing" here compresses both the direct perception of the evolving situation and the evaluative cognitive process.

On the pragmatic level, direct evidentials can be expected to convey epistemic authority if the co-text does not suggest the contrary. Bergqvist and Grzech (2023:21) argue that when speakers "use an evidential that does not appear to align with the contextual circumstances in terms of perceptual-cognitive accessibility, this choice rests on whether the speaker wishes to claim or defer epistemic authority". Following their intuition, I assume that in the case of semantic extensions into the cognitive domain direct evidentials may serve the goal of boosting the cognizer's epistemic authority. Congruously, I suppose that direct evidentials are, by default, linked to a high degree of certainty, a connection that can be expected to hold both when a perceptual-sensory interpretation is applicable and when the sensory dimension depends on a metonymic or metaphoric interpretation.

6.2.2.2. Hearsay

Hearsay evidentials denote information obtained through others' discourse, either heard or read, encompassing both cases in which the source is mentioned (as in (30)) and cases in which is not (as in (31)) – these two subtypes correspond, respectively, to Aikhenvald's *quotative* and *hearsay* (see §3.3.2). In this kind of context, reported speech – both direct and indirect – is considered to have an evidential function.

(30) Mario Lu (analyst, Barclays)
So *you said* <u>you have similar levels to last quarter around 5.6 million</u>.
(ABNB_Q1_21)

(31) Tony Xu (DASH Chairman and CEO)
[…] what we *heard* over and again was <u>they really want a choice</u> (DASH_Q1_21)

As the analytical focus of the present dissertation exceeds the categorization of speakers' knowledge, investigating the representation of knowledge of all participants, and the attribution to others', it was pertinent to include in hearsay also expressions of *self-reporting*, discussed in §3.3.2.1, aligning with Robin (2024).

(32) Brian Chesky (ABNB CEO)
As I said, <u>we also have an accompanying host campaign</u> (ABNB_Q1_21)

In these cases, the evidential expression is used to attribute knowledge to the interlocutors or at least to indicate that the knowledge is accessible to them, and not to index the speaker's source for the proposition *p* in the marker's scope. This kind of constructions is particularly interesting to investigate the participants' territories of knowledge and the way speakers represent the others' knowledge.

6.2.2.3. Inferential

Inferential evidentials are used to indicate processes of knowledge acquisition through reasoning. Expressions of inferential evidentiality can be verbal constructions (*to seem like*, *to say*, *to show*, *to see*, see examples 33, 36), adverbs (*obviously*, *evidently*, *clearly*, *probably,* see example 34), or textual strategies (as in example 35 "*if you do the math*"). Inferential expressions indicate that the proposition in their scope is concluded from a set of clues (cf. the *source* element of an epistential frame), which can be textually explicit or implicit, perceivable or non-perceivable, and more or less accessible to the interlocutors. We assume that inferential evidentials are in most cases *intersubjective* (Nuyts, 2001b; 2012; see §3.4.1.4).

(33) Dave Stephenson *(ABNB CFO)*
it all just *shows* kind of <u>that resiliency and the stability of our supply</u>.
(ABNB_Q1_21)

(34) Jessica Uhl (SHEL CFO)
But on the other hand, we *obviously* <u>need to respond to the market that we're in.</u>
(RDS_Q4_21)

(35) Tony Xu (DASH Chairman and CEO)
If you did the same math <u>for some of these other categories that we're entering, be it convenience, grocery and others, that number is very, very, very small single digits.</u> (DASH_Q1_21)

(36) Wael Sawan (SHEL Upstream director)
We see more potential, of course, as we restructure the organization, which is what we're going through at the moment. (SHEL_Q1_21)

Direct perception verbs used with cognitive meaning, in particular *to see*, are considered as inferential (a) when they metaphorically indicated a cognitive process without involving direct perception at any stage, meaning "to understand", "to interpret as" or "to seem", and/or (b) when a clue / premise was mentioned or suggested in the co-text, e.g., by expressions such as "*from… we see that…*". A case in point is "we see" in (36). The verb conveys a cognitive judgment or understanding that entails a prediction of future possibilities ("potential"), rather than sensory access to information. It is also combined with textual arguments about the company's restructuring efforts that provide premises based on which it is plausible to infer a future positive development.

6.2.2.4. Common knowledge

In the data, speakers occasionally frame propositions as being part of a shared body of knowledge. The category of *common knowledge* parallels Miecznikowsi's (2022) notion of *connaissance stable* and qualifies as a sub-type of Kittilä's (2020) *folklore* (see §3.3.2.1), including information shared within the community of practice in finance.

(37) Tony Xu (DASH Chairman and CEO)
It is just common sense that that is the right legal answer. (DASH_Q4_21)

(38) Thomas Gottstein (corporate; Group Chief Executive Officer)
[…] *it is also a fact that* we lost CHF5 billion to one client in the Investment Bank. (CS_Q2_21)

6.2.2.5. Subjective

In ECCs, participants – both managers and analysts – often employ various mental state predicates (e.g., *to think*, *to believe*, *to feel*) to express their personal opinions or beliefs.

(39) Brian Chesky (ABNB CEO)
And *I think* hosting is coming at the perfect time for many people in the world. (ABNB_Q1_21)

(40) Jessica Uhl (SHEL CFO)
We believe we've taken the full scope into consideration. (RDS_Q4_21)

These predicates can be analysed as serving epistemic modal functions, but also as indicating sources of knowledge. The frequency and significance of this category in the observed dialogues, which emerged from the data, necessitated an in-depth analysis and

the creation of a specific category. They were, in fact, classified in a distinct evidential category, termed *subjective*, akin to that of *intuitions* and *conjectures* proposed and discussed in the literature by, among the others, Dendale (1991), Dendale and Schuring (2023) and Squartini (2008) (see §3.3.2.2).

Subjectives, as well as intuitions and conjectures, share similarities with inferentials, as both indicate a cognitive process as the mode of knowing – in fact, intuitions and conjectures are often considered as subtype of inferentials. However, subjectives as are conceived in this thesis differ from inferentials in that they do not explicitly allow interlocutors to trace the origin of the opinions presented. Lacking any indication of an inferential process or the evidence on which the reasoning is based, subjectives constitute a "negative category" within the evidential system. In fact, they signal that the sole source of the proposition is the cognizer's interiority, thereby forming a paradigmatic alternative to other evidential categories. Terming this category "subjective", it is emphasized that the propositions they introduce are framed as personal opinions lacking external evidence and largely inaccessible to others, and as such is opposed to inferentials, which are generally intersubjective.

6.2.3. Annotation scheme for epistential frames[103]

Having adopted an onomasiological and corpus-based approach (§6.2), I proceeded identifying in the corpus instances of epistential frames. Such frames were annotated using an annotation scheme developed on the basis of the notions and taxonomy described earlier. The scheme, reported in Fig. 32, was implemented in INCEpTION as an *ad hoc* layer – the Epistential frames layer (henceforth, the EF layer). The EF layer comprehends four features: COMPONENTS, which includes the elements of the epistential frames, EVIDENTIALITY TYPE, EPISTEMIC MODALITY and COGNIZER TYPE. A relational feature (LINKS) was also annotated.

The annotation for this layer was carried out by myself and two additional trained annotators.[104] Inter-annotator agreement was evaluated using standard metrics, with Cohen's Kappa indicating consistently substantial agreement across all features (K> 0.60).

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[103] The examples and some of the definitions provided in this section are drawn from the Annotation manual that was compiled for the annotators and provided in the Appendix 1.

[104] I thank Alessia Scaltrito and Fiona Fraholli for their contribution.

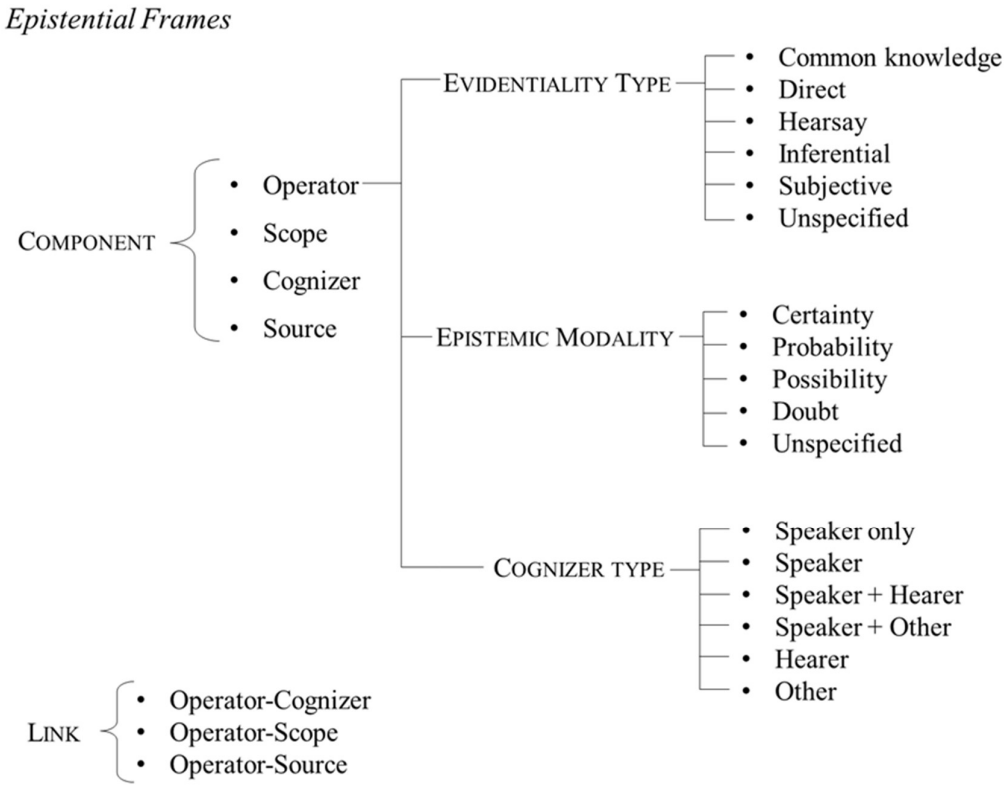


Figure 31. Annotation scheme for the evidentiality layer

Epistential frames were annotated in the entire corpus in both analysts' and managers' turns, following the procedure detailed in Appendix 1. Notably, in analysts' turns, I did not annotate evidentials in interrogative questions.[105] Epistential frames occurring in a question move were annotated when a) within a parenthetical, as in (41) and (42), or b) presupposed, as in (43) and (44).

(41) Brent Thill (analyst; Jefferies) And as just a follow on, has there been anything surprising to you through this recovery in Europe that -- just anything that you've seen in underlying trends? Or is it just continued strengthening, ***as you've been mentioning***? (ABNB_Q3_21)

(42) Eric Sheridan (analyst; Goldman Sachs) As you move into more categories and you think about more product evolution over the long-term, ***I think in the Shareholder Letter, there was a comment about retention and frequency in LTV***, how should we be thinking about long-term margin structure or the long-

[105] The analysis of evidentials occurring within interrogative utterances falls outside the scope of the present work and is left for future research. For relevant discussions of evidentials in questions and their pragmatic effects, particularly with respect to interrogative flips and conjectural questions, I refer to Faller (2024), Bhadra (2017; 2020), and San Roque et al. (2017).

term LTV-to-CAC in this business now versus maybe the pre-pandemic period when you IPOed a couple of years ago and how would you frame what you have learned over the last couple of years with respect to that? Thanks. (DASH_Q4_21)

(43) Brian Fitzgerald (analyst; Wells Fargo Securities) Thanks, guys. We want to ask about ***the growth you're seeing in hosts***, maybe in particular high-demand locations. (ABNB_Q2_21)

(44) Brent Thill (analyst; Jefferies) Dave, did you see -- when you're talking about all the decel, did you see EMEA drop off more or less? Was this consistent across regions when ***you saw a little bit of a pullback that you've been talking about***? (ABNB_Q2_21)

6.2.3.1. Components

The Components of an Epistential frame are *Operator*, *Scope*, *Source* and *Cognizer*. These elements were already briefly defined above (§6.2.1) and are defined further and more in detail below.

Operator

The Operator is the term or expression that vehicles the evidential and/or epistemic meaning. Other terms used in the literature are *trigger* (Ghia et al., 2016; Hendrickx et al., 2012) and *marker* (Pietrandrea, 2018). The terms "operator" was chosen as it is more consistent with the frame-construction conception and refers back to the idea of predicate-argument structures.

Scope

The scope is the piece of knowledge, the fact or part of reality that is known, and correspond to the propositional content under the scope of the operator.

In the literature, the term "target" is also used to indicate the proposition over which these markers have scope (Hendrickx et al., 2012), evidently in correlation with trigger. The term "scope" (already in Pietrandrea, 2018) better fits with the constructional conception adopted in this work. It also more clearly indicates that, syntactically, the piece of knowledge is an argument under the scope of the predicate operator.

Cognizer

The cognizer is the person, entity or group that knows the fact in the scope. As already discussed, in the framework of this dissertation the cognizer does not necessarily coincide with or includes the speaker, but it can be another subject, the addressee or a third party.

The extension of this notion, which in this sense departs from Miecznikowski (2020), was due to the analytical scope of this work.

Source

The source is the element or person thanks to which the cognizer knows the fact – how he knows that. This frame element corresponds to what Cornillie (2007:112) has termed "perceptual or epistemological basis" and singles out a prominent element of the process of knowledge acquisition (whereas *source* in Miecznikowski, 2020, refers to the entire process of knowledge acquisition). Sources in this sense specify a mode of knowing in more detail, for example the "clue" an inference is based on or a specific discourse or document within a hearsay frame.

(45) (In the letter)$_{\text{SOURCE}}$, (you)$_{\text{SOURCE}}$ (mentioned)$_{\text{OPERATOR}}$ (that same-store sales for your merchants is up about 35%.)$_{\text{SCOPE}}$

(46) (I)$_{\text{COGNIZER}}$ (assume)$_{\text{OPERATOR}}$ (that's dramatically higher than anybody in the peer set.)$_{\text{SCOPE}}$

(47) (You've, (obviously)$_{\text{OPERATOR}}$, been aggressively investing to date,)$_{\text{SCOPE}}$ but (it seems like)$_{\text{OPERATOR}}$ (this is a step-up from what you've been doing so far.)$_{\text{SCOPE}}$

(48) (I)$_{\text{COGNIZER}}$ (think)$_{\text{OPERATOR}}$ (in (the Shareholder Letter)$_{\text{SOURCE}}$,)$_{\text{SCOPE}}$ (there was a comment about)$_{\text{OPERATOR}}$ (retention and frequency in LTV.)$_{\text{SCOPE}}$

As this research is meant to retrieve explicit expressions of knowledge, I annotated only instances of epistential frames with a textually explicit Operator; for the same reason, a Scope is always present. Therefore, in the annotation process, these components are always annotated. On the other hand, the components Cognizer[106] and Source, are not always necessarily present, and are annotated only when textually explicit. In (45), for instance, no cognizer is explicit in the text, while in (46) we do not find any source.



Figure 32. Annotation of Epistential Frames Components in INCEpTION.

6.2.3.2. Evidentiality type

[106] However, as it is relevant to identify who is the cognizer – to whom the knowledge is attributed – this element was annotated as a feature of the Operator – see §6.2.4.

The feature *EVIDENTIALITY TYPE* specifies the mode of knowing expressed by the operator and is annotated only on the Operator. As discussed in §6.2.2, the taxonomy developed is designed to fulfil the specific needs of the present research and is specifically tailored for the genre under investigation.

Bearing in mind that the main goal of the present research is to retrieve and analyse expressions of knowledge in order to map the participants' knowledge, the focus of the annotation is the whole dimension of knowledge representation, including evidential expressions *tout court* as well as expressions of epistemic modality and strategies of knowledge attribution. The development of the taxonomy – already presented in §6.2.2 – and of the annotation scheme was based on previous literature but ultimately based on a data-driven approach. I proceeded identifying in the text epistential markers, subsequently categorising them in order to build a typology that allowed a comprehensive representation of the types of source invoked by managers and analysts. This process entailed a continuous redefinition of these categories and a constant back-and-forth between the data and the theory of evidentiality.

The feature *Evidentiality type* distinguishes six values, corresponding to the five categories described in the previous section – *Common knowledge*, *Direct*, *Hearsay*, *Inferential* and *Subjective* – and an "empty" category, *Unspecified evidentiality*. This label was added to annotate instances of epistential frames that do not carry an evidential meaning, meaning that do not include the indication of the source, such as epistemic modals or expressions of knowledge attribution.

For instance, expressions with the verb "to know" – as in example (49) – are annotated as *Unspecified* as this verb indicates the possession of knowledge – with a high degree of certainty – but not the (type of) source this knowledge comes from.

(49) (I)$_{\text{COGNIZER}}$ (know)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY}}$ (90% are individual.)$_{\text{SCOPE}}$

(50) (We)$_{\text{COGNIZER}}$ (know)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY}}$ (that many of these trips will be -- are incremental and such that when travel rebounds to a more typical state, we'll have, you know, growth in overall travel.)$_{\text{SCOPE}}$

(51) So ((I'm)$_{\text{COGNIZER}}$ not sure)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY}}$ (if you can see this in your data yet.)$_{\text{SCOPE}}$

(52) [But I do think] (that we are going to see sustained confidence,)$_{\text{SCOPE}}$ (there's no question)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY}}$.

Expressions of doubt, as in (51) are in a way expressions of non-knowledge, and in this sense, *ça va sans dire*, incompatible with any source of knowledge.

6.2.3.3. Epistemic modality

The second dimension annotated for the operators is that of *epistemic modality*, namely the degree of certainty attributed by the speaker to a certain piece of information. The feature of *EPISTEMIC MODALITY* is a simplified scalar classification of the degree of certainty, encompassing four values, *Certainty*, *Probability*, *Possibility* and *Doubt*. Also for this feature the label *Unspecified* was added to annotate evidential expressions that do not provide any clear indication of the degree of certainty.

Representing epistemic modality in scalar terms has been identified as theoretically problematic (see Rocci, 2017, among others); nevertheless, a scalar framework was adopted to classify the instances in the data, as the aim was not to develop a comprehensive theoretical model, but rather to describe when participants overtly marked higher or lower degrees of certainty about the content of their talk.

The intersection of evidentiality and epistemic modality is a highly debated question, discussed more in detail in Ch. 3 (see §3.1.2.2). As already argued in Chapp. 3 and 5, I consider these categories as distinct, although they can overlap, with the epistemic modality being a secondary meaning that evidential expressions can carry. In particular, some evidentiality types are clearly connected with a certain degree of certainty; for instance, *direct evidentiality* is *per se* an indicator of a high degree of certainty and epistemic commitment. The epistemic modality of *hearsay*, on the other hand, is rather "extrinsic", as the degree of certainty entailed can be absent, and when it is present depends on the reliability of the source. For *inferentials* and *subjective* it varies for each case, and it can be determined on the basis of the marker or expression used.[107]

6.2.3.3.1. Certainty

Certainty represents the highest degree of epistemic commitment toward the truth of the proposition in the scope.

[107] As a rule of thumb, *to believe* is annotated as *certainty*, *to think* or similar expressions as *probability* and *to feel* or similar expressions as *possibility*.

(53) (obviously)$_{\text{OPERATOR-INFERENTIAL-CERTAINTY}}$, (things like optimization and trading is fairly low visibility for us.)$_{\text{SCOPE}}$

(54) […] (we)$_{\text{COGNIZER}}$ (have, indeed, seen)$_{\text{OPERATOR-DIRECT-CERTAINTY}}$ (an impact from the pandemic)$_{\text{SCOPE}}$

(55) (We)$_{\text{COGNIZER}}$ (see)$_{\text{OPERATOR-DIRECT-CERTAINTY}}$ (a tremendous resurgence of volumes, whether it is oil or gas or chemicals, etc.)$_{\text{SCOPE}}$

(56) (So the strength of North America and Europe,)$_{\text{SCOPE}}$ (we)$_{\text{COGNIZER}}$ (believe)$_{\text{OPERATOR-SUBJECTIVE-CERTAINTY}}$ (to continue to remain strong.)$_{\text{SCOPE}}$

(57) It then came back down to more normal levels, but (that (certainly)$_{\text{OPERATOR-INFERENTIAL-CERTAINTY}}$ helped the chemical business,)$_{\text{SCOPE}}$ as did some other intermediate sectors as well.

6.2.3.3.2. Probability

Probability indicates a medium degree of certainty and commitment toward the truth of the proposition in the scope.

(58) (I)$_{\text{COGNIZER}}$ (think)$_{\text{OPERATOR-SUBJECTIVE-PROBABILITY}}$ (that all of us working around the world, most of us, if we're privileged enough to say this, are more flexible than we were before the pandemic.)

(59) (So the consumer savings rate, at least in the United States, is (probably)$_{\text{OPERATOR-INFERENTIAL-PROBABILITY}}$ at the highest level it is been since World War II.)$_{\text{SCOPE}}$

(60) And (we)$_{\text{SCOPE}}$ (do expect)$_{\text{OPERATOR-INFERENTIAL-PROBABILITY}}$ (the ADRs to moderate)$_{\text{SCOPE}}$

6.2.3.3.3. Possibility

Possibility is a quite low certainty for the proposition to be true. The speaker indicates that *p* is possible to be or become true, but with a lower epistemic commitment.

(61) […] but (it seems like)$_{\text{OPERATOR-INFERENTIAL-POSSIBILITY}}$ (you're really encouraged by what you're seeing)$_{\text{SCOPE}}$

(62) Brian, just expanding on the prior question, (it does sound like)$_{\text{OPERATOR-INFERENTIAL-POSSIBILITY}}$ (this platform experience update is really designed around inspiration and discovery.)$_{\text{SCOPE}}$

(63) So (feeling)$_{\text{OPERATOR-SUBJECTIVE-POSSIBILITY}}$ (we're in a good place in terms of returning cash to our shareholders through various forms of distribution.)$_{\text{SCOPE}}$

6.2.3.3.4. Doubt

Doubt indicates a lack of knowledge, and that the speaker does not commit toward the truth of *p*.

(64) And is there any color you can provide on (how important that is in terms of the economics of these transactions)$_{\text{SCOPE}}$ because ultimately something (we)$_{\text{COGNIZER}}$ just (don't see)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY-DOUBT.}}$

(65) I mean (I'm just unsure)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY-DOUBT}}$ (exactly where everything will settle out for domestic versus international.)$_{\text{SCOPE}}$

(66) While there have been maintenance issues happening in many assets (within the Shell portfolio and across kind of the LNG industry,)$_{\text{SCOPE}}$ ((I'm)$_{\text{COGNIZER}}$ not aware)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY-DOUBT}}$ (of it being a thematic issue around backlog maintenance.)$_{\text{SCOPE}}$

6.2.3.3.5. Unspecified epistemic modality

This category includes those instances of evidential markers or knowledge attribution signals that do not carry an epistemic modality meaning, namely that do not express a degree of certainty. In particular, these cases are often instances of attributed knowledge, i.e., when the *cognizer* is the *hearer* – or a third external party.

(67) (As (I)source said)$_{\text{OPERATOR-HEARSAY-UNSPECIFIED EPISTEMIC MODALITY}}$, (we also have an accompanying host campaign.)$_{\text{SCOPE}}$

(68) […] (if you think about)$_{\text{OPERATOR-INFERENTIAL-UNSPECIFIED EPISTEMIC MODALITY}}$ (the number of hosts on Airbnb)$_{\text{SOURCE}}$, (the top occupations of our hosts are healthcare workers, educators, and people in food and hospitality.)$_{\text{SCOPE}}$

(69) I think that what ((you're)$_{\text{COGNIZER}}$ seeing)$_{\text{OPERATOR-DIRECT-UNSPECIFIED EPISTEMIC MODALITY}}$ is (still even more confidence in the U.S.)$_{\text{SCOPE}}$

6.2.3.4. Cognizer type

In section 6.2.3.1 I explained that in the annotation of the frames' components the elements Cognizer and Source were annotated only when textually explicit. However, it was relevant to identify also in these cases who the cognizer is; also in the cases where it was explicit, the Component-feature *Cognizer* allows only to identify the word or piece of text that indicates the cognizer, and not to identify *who it is*. For this reason, the feature *Cognizer Type* was implemented: this feature, annotated on the operator, beside allowing to identify the speaker when textually absent, serves to specify *who* it is – whether it is the speaker, the hearer or someone else.

By analysing the data, I identified six possible cases, which were then implemented as values for the annotation: *Speaker only*, *Speaker*, *Hearer*, *Other*, *Speaker+hearer*, *Speaker+other*.

6.2.3.4.1. Speaker only

The value *Speaker only* applies when the cognizer is exclusively the speaker, as in cases where the verb is marked with a first-person pronoun, as in (70) and (71), or when there's an expression that clearly indicates that the piece of information is a personal opinion or conclusion, as in (72) and (73).

(70) (I)$_{\text{COGNIZER}}$ (know)$_{\text{OPERATOR-SPEAKER ONLY}}$ (that obviously tell that it was a big accelerator into the business.)$_{\text{SCOPE}}$

(71) (I)$_{\text{COGNIZER}}$ (believe)$_{\text{OPERATOR-SPEAKER ONLY}}$ (if we execute well, we'll generate a very attractive return.)$_{\text{SCOPE}}$

(72) (It seems like)$_{\text{OPERATOR-SPEAKER ONLY}}$ (to me)$_{\text{COGNIZER}}$ (you're giving consumers, you knew, broader recommendations.)$_{\text{SCOPE}}$

(73) So anyway, (I have tons of interesting stuff ahead,)$_{\text{SCOPE}}$ (in my opinion)$_{\text{OPERATOR-SPEAKER ONLY.}}$

In (80) the expression "*in my opinion"* assumes the role of operator and indicates that the proposition *p* in the scope is a personal opinion of the speaker, thus pertaining to her knowledge only.

6.2.3.4.2. Speaker

In contrast, *Speaker* is used when the speakers present themselves as (part of) the cognizer but also frame the proposition (*p*) as intersubjectively available, that is, accessible to others, without explicitly indicating that anyone else knows *p*. This occurs, for example, with intersubjective inferentials such as *obviously* or *it seems like*. In these cases, the speaker does not assert epistemic primacy but rather portrays the information as mutually accessible or inferable within the interactional context.

(74) […] (common consent would say)$_{\text{OPERATOR-SPEAKER}}$ (that one of the issues on your shares is the free cash flow yield is not being represented in the market because your dividend yield is so -- or your dividend payer.)$_{\text{SCOPE}}$

(75) [I think] (in the letter)$_{\text{SOURCE}}$, (it)$_{\text{SOURCE}}$ (said)$_{\text{OPERATOR-SPEAKER}}$ (post listings were stable with Q4.)$_{\text{SCOPE}}$

(76) So (you guys)$_{\text{SOURCE}}$ (mentioned)$_{\text{OPERATOR-SPEAKER}}$ (some slowdown in the nights booked in the third quarter.)$_{\text{SCOPE}}$

(77) (Record day)$_{\text{SOURCE}}$ (still)$_{\text{SCOPE}}$ (sounds like)$_{\text{OPERATOR-SPEAKER}}$ (things are good.)$_{\text{SCOPE}}$

(74) is an instance of *common knowledge*: the speaker implies that he knows *p* as it is part of a shared body knowledge, and therefore it is by definition a piece of information (supposedly) shared with his interlocutors.

(75) and (76) are instances of *hearsay* frames, where the sources are disclosures by the company, and are accessible also to others. It is clear that the speaker surely knows *p* – as it asserts it – but the type of source represented allows an intersubjective interpretation, meaning that we can assume that also someone else (the interlocutor or even other participants in the interaction) knows *p*.

In (77), *sounds like* bears an inferential meaning and as there is not an explicit signal of a "personal" inference, it can be interpreted as intersubjective – meaning that the inference is accessible to everybody has the same premises.

In the cases described above, it is clear that the knowledge of *p* is intersubjective and thus there is someone else other than the speaker knowing *p*, but *who* is included in this intersubjective cognizer is not explicitly stated nor retrievable. In contrast, the labels *Speaker + Hearer* and *Speaker + Other* are used when the knowledge of proposition *p* is attributed to both the speaker and another party, specifically, the interlocutor or a third party, respectively.

6.2.3.4.3. Speaker + Hearer

The value *Speaker + Hearer* applies in cases where the speakers explicitly include the addressee(s) as a co-cognizer together with themselves, as in formulations like "*as we know*" (as in (78)), or when the source of *p* is the interlocutor themselves, as in (79). It also includes instances of hearsay when *p* is something said during the call, as in (80).

(78) I think ((we)$_{\text{COGNIZER}}$ all know)$_{\text{OPERATOR-SPEAKER+HEARER}}$ (that Credit Suisse Schweiz is worth more than book value)$_{\text{SCOPE}}$

(79) So (as (you)$_{\text{SOURCE}}$ point out)$_{\text{OPERATOR-SPEAKER+HEARER}}$ and (as (I) SOURCE said) $_{\text{OPERATOR-SPEAKER+HEARER}}$, one of the kind of – (one of the trends that has been pretty remarkable over the last year is as more people have more flexibility, they can work from home.)$_{\text{SCOPE}}$

(80) (As (Brian)$_{\text{SOURCE}}$ mentioned)$_{\text{OPERATOR-SPEAKER+HEARER}}$, (this broader brand campaign, talking about made possible by hosts, it gets to us talk to both sides of our marketplace.) $_{\text{SCOPE}}$

6.2.3.4.4. Speaker + Other

Speaker + Other is used when the speaker attributes knowledge of *p* to themselves and a third party, such as a broader group. For instance, this label applies when managers employ a plural subject (e.g., *we* or *we at the company*) to represent shared knowledge with the entire management team or organization.

(81) And what ((we've)$_{\text{COGNIZER}}$ actually seen)$_{\text{OPERATOR-SPEAKER+OTHER}}$ (is a large growth in nonurban listing.)$_{\text{SCOPE}}$
(82) (Now as far as key friction to becoming a host, one of the things)$_{\text{SCOPE}}$ ((we've)$_{\text{COGNIZER}}$ seen)$_{\text{OPERATOR-SPEAKER+OTHER}}$, [probably the main learning we've had] (is as we make it easier, more people do it.)$_{\text{SCOPE}}$
(83) [So I think that] (as restrictions lift in countries, as vaccinations rise,)$_{\text{SCOPE}}$ (we)$_{\text{COGNIZER}}$ (think)$_{\text{OPERATOR-SPEAKER+OTHER}}$ (this is a significant tailwind to both urban travel and cross-border travel.)$_{\text{SCOPE}}$
(84) [And in terms of the market opportunity of long-term stays -- market opportunity in long-term stays,] (we)cognizer (think)$_{\text{OPERATOR-SPEAKER+OTHER}}$ (this adds hundreds of billions of dollars to our overall long-term TAM opportunity with long-term stays.)$_{\text{SCOPE}}$
(85) And what (we)$_{\text{COGNIZER}}$ (heard)$_{\text{OPERATOR-SPEAKER+OTHER}}$ (from really anyone we speak to)$_{\text{SOURCE}}$ (is a willingness to engage in that conversation and construct forward a third way in which we can pair this independence and flexibility with benefits.)$_{\text{SCOPE}}$

6.2.3.4.5. Hearer and Other

The label *Hearer* applies when the speaker attributes some knowledge to the interlocutor – as in examples (86)-(89) – while *Other* applies when it is attributed to a third party not who is not participating in the conversation, as in (38). The labels *Hearer only* and *Other only* were not employed, as any assertion that "someone knows *p*", where *p* is a propositional content, whether asserted or presupposed, necessarily implies that the speaker also has knowledge of *p*. In other words, a speaker cannot assert that "someone knows that *p*" without themselves knowing *p*. In this sense, it is evident that also the speaker knows *p*, but the annotation was meant to focus on the attribution to the interlocutor.

(86) [On the second question,] (the business impact is reflected in our guidance, and it is something that)$_{\text{SCOPE}}$ (you)$_{\text{COGNIZER}}$ (know)operator-hearer (we feel pretty comfortable.)$_{\text{SCOPE}}$

(87) (Dashers)$_{\text{SCOPE}}$ (you)$_{\text{COGNIZER}}$ (know)$_{\text{OPERATOR-HEARER}}$ (don't require a car.)$_{\text{SCOPE}}$

(88) [Now while the results are still early,] (as (I)$_{\text{SOURCE}}$ said)$_{\text{OPERATOR-HEARER}}$, (we have seen elevated traffic levels.)$_{\text{SCOPE}}$

(89) […] (many people)$_{\text{COGNIZER}}$ (believe)$_{\text{OPERATOR-OTHER}}$ (sit in your business recognized in your share price)$_{\text{SCOPE}}$

In (86) and (87) the cognizer is explicitly indicated as the hearer, while in (88)-(89) the speaker attributes the knowledge to the hearer as he or someone else *already said p* – so he is supposed to know.[108]

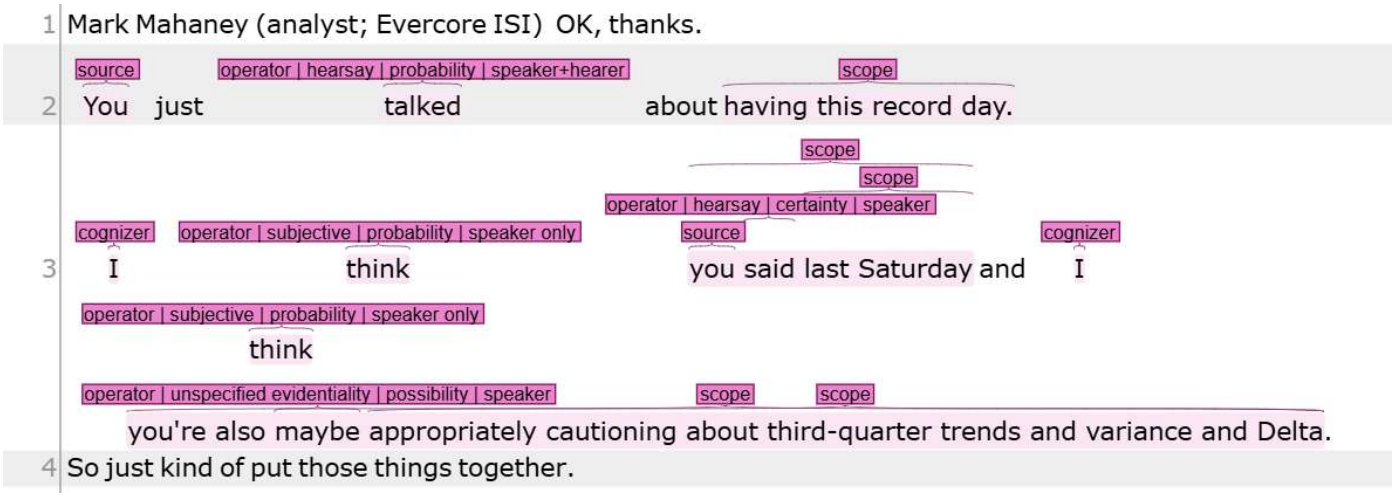


Figure 33. Annotation of Epistential Frames in INCEpTION, with Frame Components and Operator features (Evidentiality type, Epistemic modality type, Cognizer type).

6.2.3.5. Link Feature

A relational feature was also implemented in the annotation to build a connection between the different Components, in order to retrieve the elements of each Frame. The Links are *Operator-scope*, connecting the *Operator* to the *Scope*; *Operator-cognizer*, connecting the *Operator* to the *Cognizer*, and *Operator-source*, connecting the *Operator* to the *Source.* This feature is represented as an arrow connecting the elements in Fig. 35.

[108] I already highlighted that in such cases the epistemic modality is *unspecified*, as the speaker tells us that *p* should pertain to the hearer's territory of knowledge but cannot really tell with which degree of certainty.

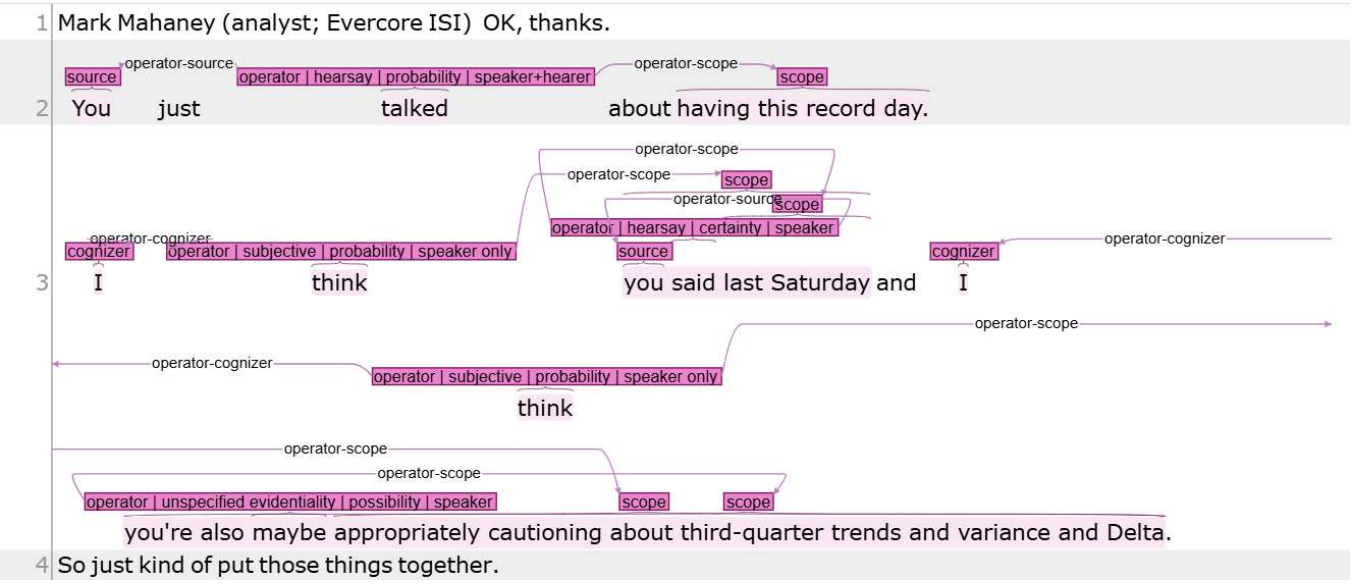


Figure 34. Annotation of Epistential Frames and Epistential Links in INCEpTION, with Frame Components and Operator features (Evidentiality type, Epistemic modality type, Cognizer type).

6.2.3.6. Epistential Span layer

Lastly, the EPISTENTIAL SPAN layer was implemented in INCEpTION as a functional layer to annotate and retrieve the portions of text that contain (at least) one Epistential frame. A Span is a higher-level annotation that comprises all the Components of one or more Epistential frames.

The boundaries and length of an Epistential Span are not pre-determined, as they depend on the structure of the frames, but it cannot be shorter than a sentence. Even in cases where the frame is shorter than a sentence, the entire sentence has to be annotated, as in (90). This applies as well for Epistential frames comprised within interrogative sentences (as in (91) and (92). In case of anaphoric/cataphoric elements, when the antecedent is annotated within the Evidential frame, the Span has to include the antecedent as well, as in example (93).

(90) {(I)$_{\text{COGNIZER}}$ (think)$_{\text{OPERATOR}}$ ((in the letter)$_{\text{SOURCE}}$,)$_{\text{SCOPE}}$ (it)$_{\text{SOURCE}}$ (said)$_{\text{OPERATOR}}$ (post listings were stable with Q4,)$_{\text{SCOPE}}$ but (it seems like)$_{\text{OPERATOR}}$ (you're really encouraged by what you're seeing.)$_{\text{SCOPE}}$}$_{\text{EPISTENTIAL SPAN}}$

(91) {[This has been our bread and butter before the pandemic,] and (I)$_{\text{COGNIZER}}$ (think)$_{\text{OPERATOR}}$ (those are significant tailwinds for us.)$_{\text{SCOPE}}$}$_{\text{EPISTENTIAL SPAN}}$

(92) {We want to ask about (the growth)$_{\text{SCOPE}}$ ((you're)$_{\text{COGNIZER}}$ seeing)$_{\text{OPERATOR}}$ (in hosts)scope}$_{\text{EPISTENTIAL SPAN}}$

(93) {Can you just give us an update on (where your revenue take rate is today as a percentage of GPV just given all the timing differences)$_{SCOPE}$? (It is hard to tell from the outside)$_{OPERATOR}$ (where that is.)$_{SCOPE}$}$_{EPISTENTIAL\ SPAN}$

(94) {So (this is the second trend)$_{SCOPE}$ ((we're) $_{COGNIZER}$ seeing)$_{OPERATOR}$. (And the third is people are now traveling everywhere.)$_{SCOPE}$}$_{EPISTENTIAL\ SPAN}$

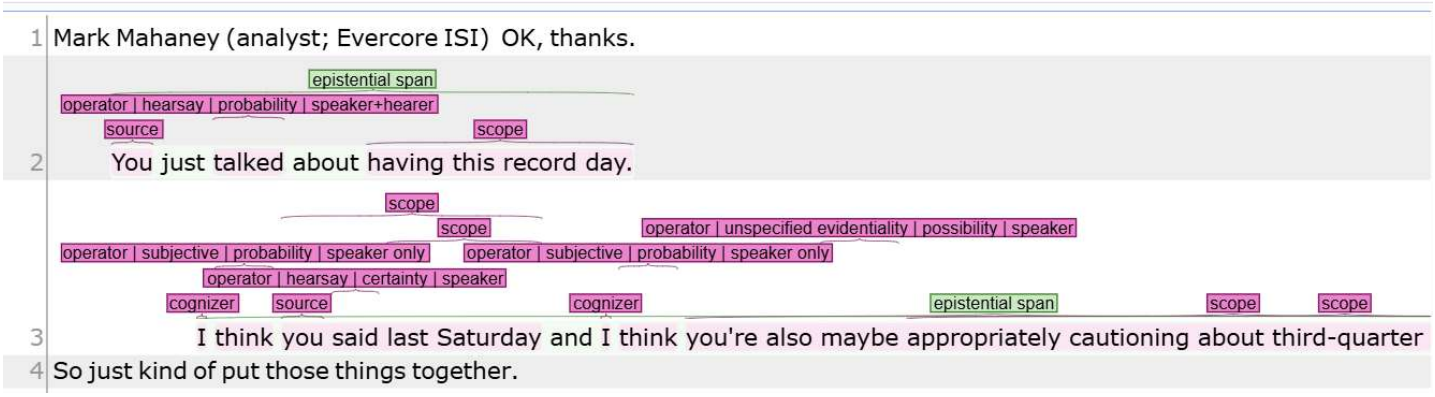


Figure 35. Annotation of Epistential Span layer in INCEpTION - with Epistential frame Components.

6.3. A combined approach for argumentative analysis

In §2.5.1, I discussed how approaches to argumentative analysis can be situated along the *micro-macrostructure* axis and the *annotation-reconstruction* axis. In this work, I investigate both micro- and macro-argumentative levels through an integrated approach that involves three steps: a macro-structural annotation of argumentative moves – meant to identify the moves in the analysed texts; a macro-reconstruction of argumentative structure, inspired to the Pragma-Dialectical approach (illustrated in §2.5.3.3); and a micro-reconstruction of inferential connections based on the AMT model (see §2.4.1.2).

The first two analytical steps, annotation of moves and reconstruction of argumentative structures both concern the level of argumentative macro-structures. Complementing an annotation procedure to identify and classify argumentative moves with a more qualitative reconstruction of argumentative structures allows to overcome certain intrinsic limitations of annotation approaches (outlined in§2.5.1). In particular, an annotation-based approach to argumentative diagramming cannot account for implicit elements, such as unexpressed premises or standpoints. As a consequence, cases may arise in which an argumentative move is not annotated as such because lacking explicit connected argumentative moves, entailing that any epistential frame it contains will not be annotated as being part of an argumentative move. The annotation procedure is designed to register the occurrence of

explicit evidential and epistential frames in explicit argumentative moves. Reconstructing the argumentative structure through a Pragma-Dialectical-inspired method, on the other hand, allows to integrate implicit elements.

The last step concerns the (micro-)reconstruction of inferential configuration. As it cannot be adequately captured through a linear annotation scheme, I conduct a more fine-grained qualitative examination of the inferences connecting premises and conclusions based on the AMT model, complementing the macro-structural investigation.

This integrated approach makes it possible to combine a quantitative examination of argumentative constructions in ECCs, as well as of the role of evidentials as indicators of argumentative moves, with a qualitative analysis of the strategies employed, the implicit premises invoked, and the specific argumentative functions performed by evidentials.

6.3.1. Step one: macro-structural annotation of argumentative moves

As anticipated above, this dissertation adopts as a first analytical step a *macrostructural annotation* procedure; implemented in the INCEpTION platform in parallel with the evidentiality annotation, this procedure takes the form of a linear annotation. Despite the shortcomings this approach entails (see §2.5.1), a macrostructural annotation method remains appropriate for the purposes of this dissertation, which seeks to investigate recurring patterns in the interplay between argumentation and evidentiality. Besides providing a suitable framework for examining the correlation between argumentative moves and evidential markers, it offers a good balance between theoretical adequacy and practical feasibility. Methodologically, it allows for the identification of *argumentative moves* at the discourse level, rather than at the granular level of premise-conclusion relations. This makes it possible to capture the overall organization of argumentative discourse and to correlate it with evidential strategies, which are likewise expressed at the textual level. Moreover, a linear annotation ensures comparability and consistency across the dataset: by annotating both argumentative moves and evidential frames within the same platform, the analysis proceeds in a systematic manner. Finally, although a microstructural or reconstructive approach might allow for a more detailed representation of inferential links and implicit content, it might introduce a higher degree of interpretive subjectivity, thereby reducing the reliability of the annotation.

6.3.1.1. Annotating argumentative moves in INCEpTION

To observe the relation between epistential frames and argumentative moves, I developed a simplified annotation scheme that allowed for the identification of moves, distinguishing *premises*, *standpoints* and *intermediate conclusions* – propositions that serve to justify a hierarchically higher standpoint.

This scheme was implemented in a custom layer in INCEpTION and annotated in both managers and analysts turns. Two tags, *premise* and *conclusion*, were set to describe the moves, and to signal intermediate conclusions in subordinative structures. I annotated both tags on the unit; like for the epistential layer, the length of the move spans was not predetermined. In order to easily identify the relations between moves, which are important to get an overview of the argumentative structure of the annotated passages, I implemented a relational layer with three labels: *inference*, *coordinate*, and *compound inference*. The *inference* link connects a premise to its conclusion – the arrow is drawn starting from the premise and points toward the conclusion. It allows to represent *single* and *multiple* structures: in the latter case, multiple premises are connected to the same conclusion. The other two links are used to represent *compound* argumentative structures.[109] The *coordinate* link connects coordinate arguments, and a *compound inference* link is drawn starting from the last premise of the chain and pointing toward the conclusion.

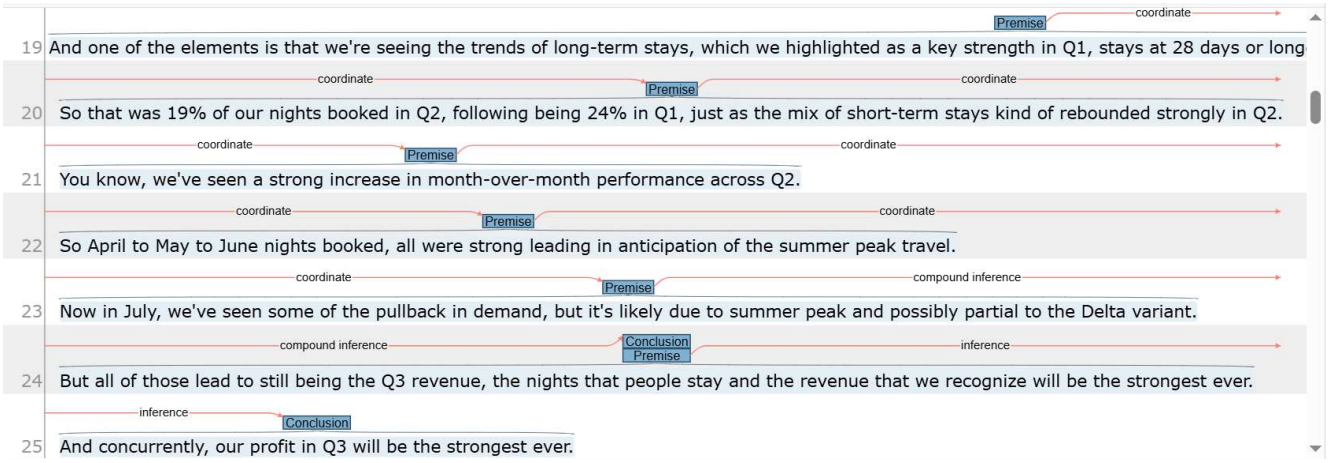


Figure 36. Annotation of argumentative moves and relations in INCEpTION

Figure 37 shows the different possible cases. For instance, the Premises in lines 19, 20, 21, 22 and 23 are connected 'sequentially' through *coordinate* links, building a chain of

[109] For a definition of *single*, *multiple* and *compound* structures, see Ch. 2, §2.4.2.1.1.

connected premises, and these are then connected to their standpoint – line 24 – through the *compound inference* link, which starts from the last premise of the chain. This standpoint works at the same time as an argument supporting the Conclusion move in line 25 and thus is annotated also with the tag Premise and connected to the conclusion through the *inference* link.

6.3.1.2. Annotation procedure

The aim of the annotation procedure was to examine the occurrence of different types of evidentials in different types of argumentative moves. In particular, the analysis was conducted to verify how often an evidential is associated with an argumentative move – rather than, for instance, how often argumentative moves contain evidential frames. The layer of argumentative moves was therefore annotated only in Epistential spans (passages containing at least one epistential frame, see §6.2.3.2).

The annotation of this layer was carried out solely by the author of this dissertation, following the procedure detailed below.

- Step 1. Retrieval of evidential frames

  Using the INCEpTION "*Search*" functionality, I retrieved all sentences containing an already annotated evidential frame.

  - Step 2. Argumentative annotation

  For each retrieved sentence, I examined its immediate co-text to determine whether it formed part of an argumentative passage in the turn.

  Is the sentence containing the evidential frame functioning as an argument (premise) directly supporting a textually explicit conclusion identifiable in the speaker turn?

  ➔ If *yes*, proceed to Step 3.1: Premise annotation

  - *Is the sentence containing the evidential frame functioning as a (general or local) standpoint that is directly supported by a textually explicit set of premises identifiable in the immediate co-text?*

    ➔ If *yes*, proceed to Step 3.2 *Conclusion annotation*

- Step 3: *Moves annotation*

  If the sentence containing the evidential frame is recognized as fulfilling an argumentative function, it is annotated accordingly.

  - Step 3.1 *Premise annotation*

If a sentence is identified as having the function of a premise supporting a conclusion, I annotate:

- the sentence itself as *premise*;
- the supported conclusion (the derived conclusion) as *conclusion*;
- any additional premises (coordinated or independent) supporting the same conclusion (the derived premises) as *premise*.

Does the premise also function as an (intermediate) conclusion directly supported by a textually explicit set of premises identifiable in the immediate co-text?

➔ If *yes*, the move is additionally annotated as *conclusion*, and all supporting premises (the derived premises) are annotated as *premises*.

- Step 3.2: *Conclusion annotation*

If a sentence is identified as having the function of a conclusion supported by one or more premises, I annotate:

- the sentence itself as *conclusion*;
- its supporting premises (the *derived premises*) as *premise*.
  - *Does the conclusion also function as a premise directly supporting a further, textually explicit conclusion identifiable in the immediate co-text?*

    ➔ If *yes*, the move is additionally annotated as premise, and the higher-level standpoint is annotated as conclusion.

Following this procedure, it was possible to systematically identify epistential frames occurring within argumentative moves. When the evidential frame appears in either a premise or a conclusion, the resulting annotated structure may contain up to three argumentative layers (premise à intermediate conclusion à final conclusion), with the evidential frame occurring at the intermediate level. If the evidential frame appears in a premise that does not function as an intermediate conclusion, or in a conclusion that does not support a higher standpoint, the resulting annotated structure consists of a minimal two-level structure (premise à conclusion).

However, if any of the *derived* moves—that is, moves annotated as supporting or supported by the originally identified move containing the evidential frame—also contains an evidential frame, the annotation procedure is iterated:

- Step 3.3: *Further annotation*

  Derived premises: If a derived premise (a sentence annotated as a premise because it supports the originally annotated move containing the evidential frame) contains an evidential frame and also functions as an intermediate conclusion supported by an additional premise, it is annotated as *conclusion*, and its supporting argument(s) are annotated as *premise*.

  Derived conclusions: If a derived conclusion (a sentence annotated as a conclusion because it is supported by the originally annotated move containing the evidential frame) contains an evidential frame and also functions as a premise (thus as an intermediate conclusion) supporting a further standpoint, it is annotated as *premise*, and the higher-level standpoint is annotated as *conclusion*.

In this sense, while the minimal argumentative structure consists of two argumentative levels, the maximal structure is open-ended and depends on the distribution and hierarchical embedding of evidential frames.

6.3.2. Step two: reconstructing argumentative structures

The second stage moves toward a deeper, more qualitative analysis by reconstructing the argumentative structure of relevant and potentially 'problematic' cases in a Pragma-Dialectical framework (illustrated in §2.5.3.3).

In this analytical step, I follow the Pragma-Dialectical method. First, the analytical transformations and the reconstruction of implicit allow to establish a version of text suitable for the analysis, and the various moves – standpoint and argument(s) – are identified. Second, the structure is reconstructed through the numerical notation illustrated in §2.5.2.3. Lastly, I provide a graphical representation of the argumentative structure.

(95) Let's try this restaurant. Mary recommended it to me

1. We should try this restaurant.
   1.1. Mary recommended it to me.
   (1.1'. Mary is an expert in food and restaurant).

The analytical reconstruction allows to identify and reformulate the standpoint (1) and the explicit premise (1.1) and to reconstruct the underlying endoxon (1.1').

According to the Pragma-Dialectical methodology, as shown in §2.5.2.3, a simple argumentation is reconstructed as follows:

In the present work, in reconstructing similar cases I consider the endoxical premise as part of the structure, representing it as within a compound argumentative structure – as illustrated below:

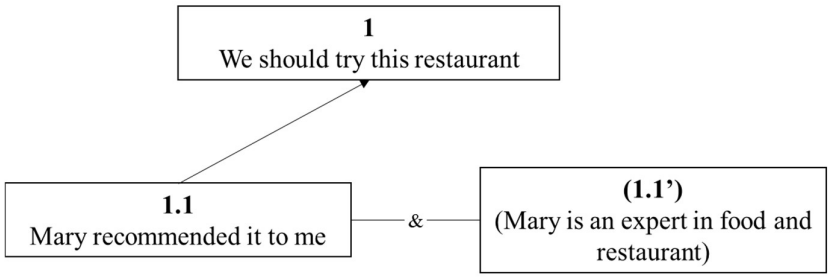


Figure 37. Pragma-Dialectical representation of example (95)

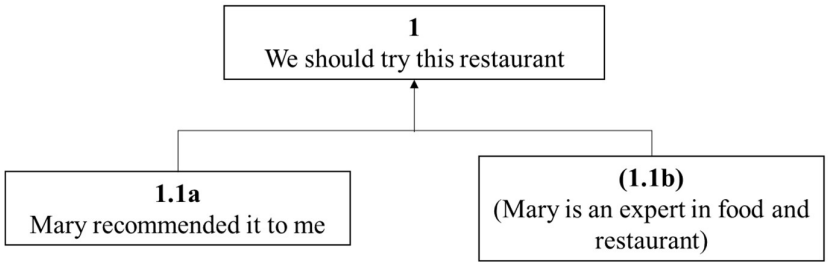


Figure 38. Adapted representation of example (95)

Such adapted representative methodology is mainly due to the fact that I consider endoxa as proper arguments that are left implicit – usually for rhetorical reasons.

Cases of multiple argumentation are represented as in (40) while cases of complex argumentation – containing a subordinate argumentation – as in (41).

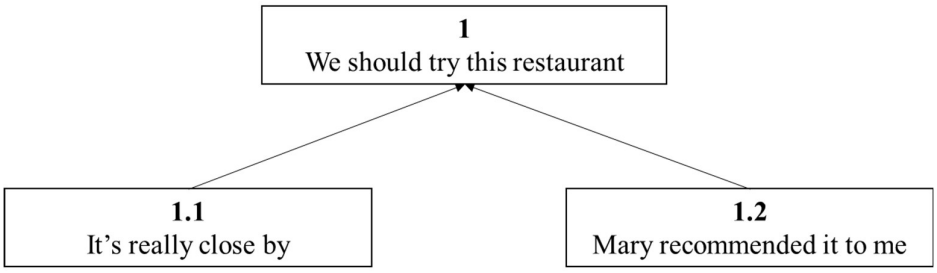


Figure 39. Representation of multiple argumentative structure

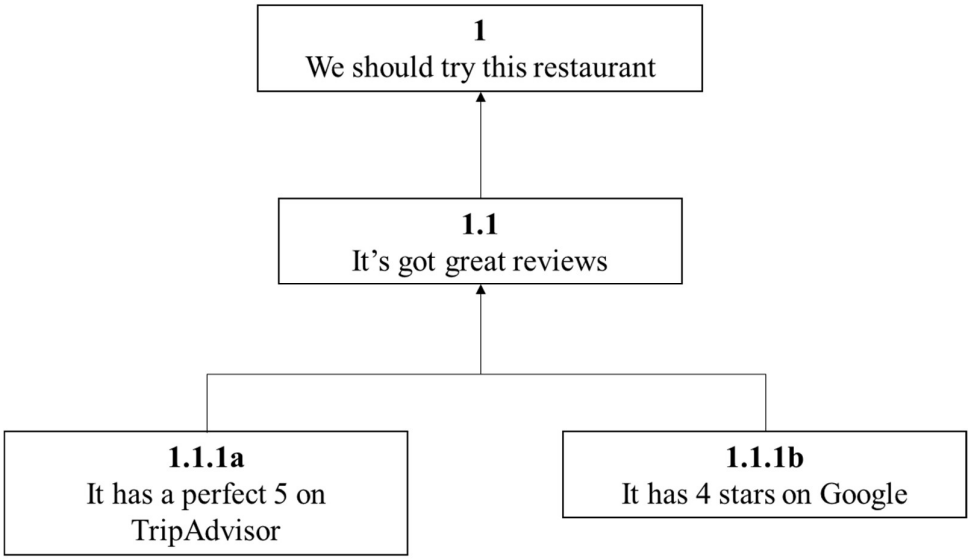


Figure 40. Representation of complex argumentative structure

6.3.3. Step three: micro-reconstruction of inferential configurations

The last analytical step conducted is the reconstruction of inferential configurations connecting an argument and its conclusion. This process is based on the AMT model presented in §2.4.2.

The aim of the AMT model is exactly that of illustrating the "structure of reasoning that underlies the connection between a standpoint and its supporting arguments" (Rigotti and Greco Morasso, 2010:490). As it was already discussed in §2.4.2, this model is not intended to provide a complete model of argumentation nor a complete methodology to analyse and reconstruct argumentation, but it focuses specifically on the inferential level. For this reason, it is useful to combine it with another approach for the reconstruction of argumentative structure. On the other hand, while the Pragma-Dialectical theory provides its own inventory and classification of argument schemes, it does not really propose a method to disentangle and represent the various components of an inferential configuration. In the present work, I thus employ the AMT method to reconstruct the inferential configuration of relevant cases, which allows to identify and represent the various elements of both the material and procedural components (*datum* and *endoxon*, and *locus* and *maxim,* respectively).

Figure 42 below represents the Y-structure of example (43). We see that (1) corresponds to the final conclusion in the Y-structure, while the two arguments (1.1a) and (1.1b) correspond to datum and endoxon.

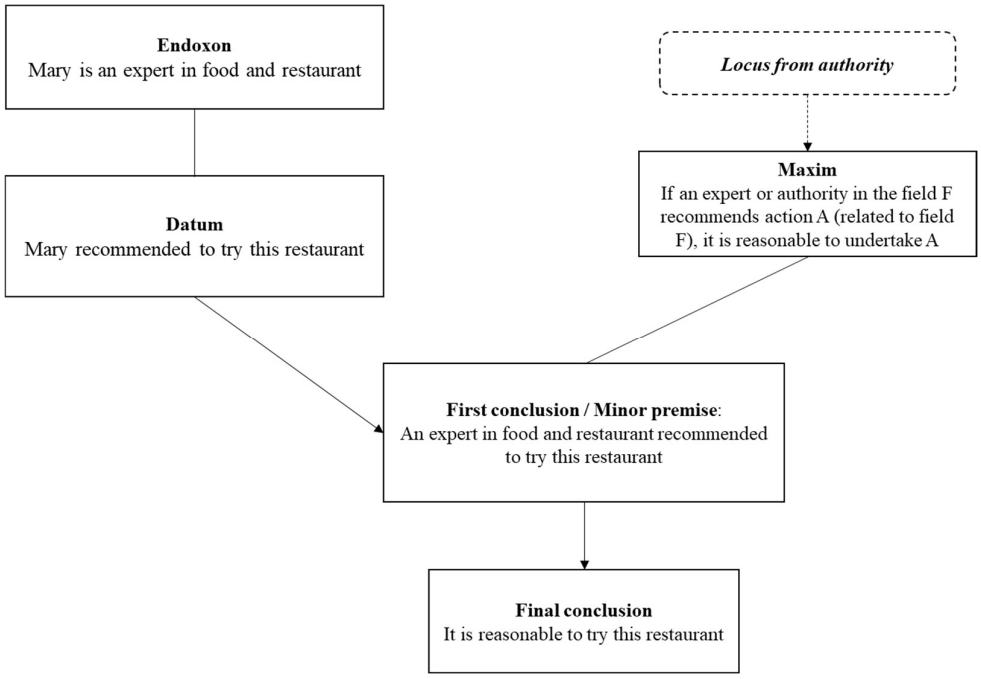


Figure 41. Y-structure of the inference connecting premises and conclusion of example (95)

Importantly, it should be noted that each Y-structure represents a single inferential configuration. In the case of compound arguments, where multiple premises must be considered together to support a standpoint, there is only one inferential connection, and thus only one Y-structure. Conversely, when multiple argumentative structures are present, each argument independently supports the conclusion, as shown in Fig. (43).

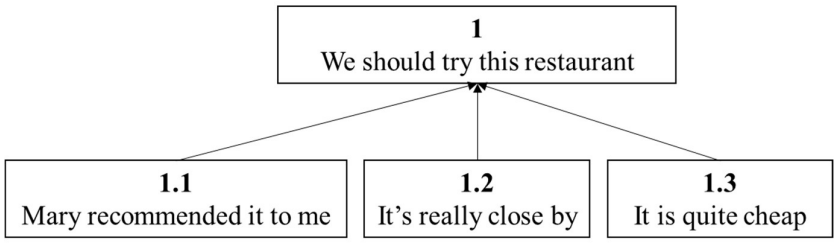


Figure 42. Multiple argumentative structure

In such cases, a Y-structure can be reconstructed for each premise-conclusion link, resulting in as many Y-structures as there are "arrows", as illustrated below. Standpoint (1) is supported by three independent arguments. Argument 1.1, which coincides with the one analysed above, relies on a locus from authority, namely the fact that a certain action was recommended by an expert. Arguments 1.2 and 1.3, in contrast, employ a different type of reasoning: they are based on the idea that the action suggested (choosing this particular restaurant) would yield various benefits – being both conveniently located and economical – which, in turn, would save time and money, objectives generally considered socially and culturally shared. As these arguments are independent, they are reconstructed as three different Y-structures; figures (44) and (45) represent respectively the inferential connection between 1.2 and 1 and 1.3 and 1.

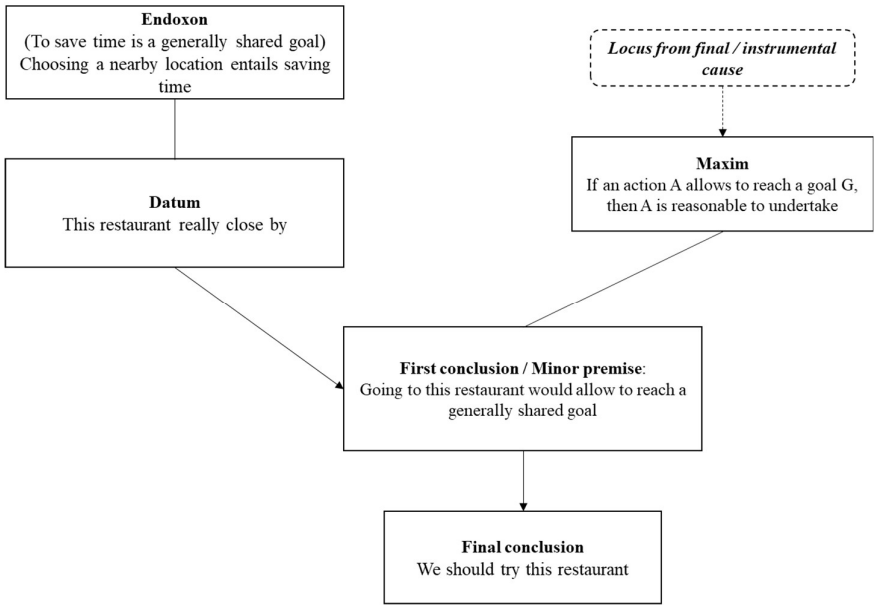


Figure 43. Y-structure of the inferential connection between 1.3 and 1

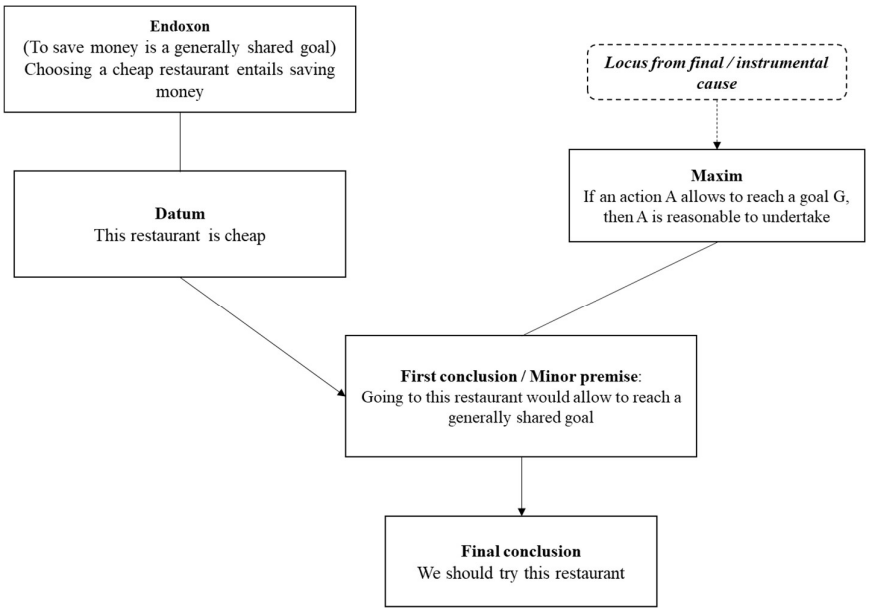


Figure 44. Y-structure of the inferential connection between 1.3 and 1

Interestingly, we see that these two inferences are based on the same locus and share the same maxim, while the material components (endoxon and datum) change.

6.4. A novel definition of argumentative patterns[110]

One focal point of this dissertation is analysing how evidentials not only occur in argumentative moves but are also related to *argumentative patterns*. This notion, introduced by the Pragma-Dialectical theory, was presented in Ch. 2 (§2.4.7); contextually, it was highlighted that this notion, as it is formulated and has been applied so far, presents some critical aspects. In this section, I propose a novel definition for argumentative patterns, also sketching a methodology that reflects the theoretical insights and that can be applied to investigate argumentative patterns in discourse.

6.4.1. Open issues concerning the notion of argumentative patterns

6.4.1.1. Definitional problems

According to the classical Pragma-Dialectical definition of the phenomenon – reproduced here for the sake of clarity – an argumentative pattern is "a particular

[110] This section is largely based on a study presented at the 5th European Conference on Argumentation in September 2025, *Extending the notion of Argumentative Patterns* (Lucchini, 2025).

constellation of argumentative moves in which, in dealing with a particular kind of difference of opinion, in defence of a particular type of standpoint a particular argument scheme or combination of argument schemes is used in a particular kind of argumentation structure" (van Eemeren, 2018: 150). Moreover, a pattern is generally understood as a sequence of moves that the researcher can envision based on a theoretical reconstruction of the context. While foundational, this conception exhibits some shortcomings.

Van Eemeren's definition specifies that argumentative patterns are identifiable through four core elements: (a) the *type of issue* addressed, (b) the *type of standpoint*, (c) the *argumentation structure* supporting the standpoint, and (d) the types of *argument schemes* employed. I contend, however, that because any argumentative discourse *de facto* consists of sequences of moves characterized by the presence of elements (a)-(d), this definition risks being overly inclusive. It may apply to virtually any sequence of moves, without adequately distinguishing particular constellations or yielding substantial analytical insight. Although such a definition may facilitate the identification of sequences containing specific elements, this alone does not establish their contextual relevance in comparison with other sequences. Consequently, it offers limited utility for investigating the relationship between context and argumentation.

A crucial question therefore remains: what fundamentally distinguishes a "proper" argumentative pattern from other argumentative sequences? A first, trivially plausible assumption, based on the literal meaning of *pattern* as a "repeated design or model", is that an argumentative pattern is defined by recurrence, that is, by identifying a recurrent sequence of argumentative moves. Yet, according to the theory, frequency of occurrence is not a defining characteristic of patterns *in general*; rather, it is the distinctive feature of *stereotypical patterns*. Alternatively, one might argue that a pattern is distinguished by its *relevance* within an activity type, namely as a sequence of moves inherently linked to the features and constraints of the communicative practice in which it occurs. However, this property, being connected to the activity type, is precisely the defining feature of *prototypical patterns*, and therefore cannot function as a general criterion for argumentative patterns as such.

One possible solution would be to regard as argumentative patterns only those that are prototypical. However, as van Eemeren (2018:150) notes, there also exist *incidental argumentative patterns*, sequences that qualify as argumentative patterns without being

either prototypical or stereotypical. In this sense, argumentative patterns cannot be equated with prototypical patterns, which instead constitute only a specific subtype.

It thus becomes evident that, in its current formulation, the defining characteristic of argumentative patterns, that is, what makes patterns "particular", is neither clearly articulated nor reliably grounded in features one would reasonably expect to serve as its basis, such as frequency and contextual relevance, since these criteria are already associated with stereotypicality and prototypicality, respectively. The notions of prototypical and stereotypical patterns are themselves problematic, insofar as they risk generating a conceptual impasse in the definition of argumentative patterns. Although Musi and Aakhus (2018) challenge these notions by proposing alternative definitions that offer a more flexible analytical perspective, I argue that a clearer and more rigorous formulation of argumentative patterns – one that already incorporates recurrence and contextual relevance – would render these additional notions superfluous.

A second problem with the original definition concerns the assumption that, for a sequence of moves to qualify as an argumentative pattern, all elements (a)-(d) must be specified. As §§6.4.3 and 6.4.4 will show in greater detail, some sequences that reveal themselves to be patterns may remain underspecified with respect to these elements and instead be characterized by others. For instance, as D'Agostino and Rocci (2024:19) argue, patterns may involve combinations of elements (a)-(d) but are not limited to them, particularly because "their characterization can involve any sequence of argumentatively relevant moves, including those (e.g., challenges, critical questions, concessions) which do not involve an argumentation structure or an argument scheme." They also argue for the inclusion of *dialogical patterns* realized at the inter-unit level. I further suggest that, alongside these argumentatively relevant moves, additional elements may also characterize an argumentative pattern, such as argumentative indicators, linguistic expressions, as well as dialogue moves or types of speech acts.

6.4.1.2. Methodological problems

The methodology commonly employed in Pragma-Dialectical research on argumentative patterns – outlined in detail in §2.4.7.1 – also presents several limitations that should be addressed in order to enhance the study of argumentative patterns in context.

Pragma-Dialectical research on argumentative patterns is primarily conceived as the study of how specific, pre-established patterns manifest across different contexts, relying

on a qualitative and *a priori* approach aimed exclusively at identifying prototypical patterns. This methodological orientation gives rise to several problems.

First, because prototypical patterns are defined as characteristic of how argumentation typically unfolds within a given activity type, they are derived from the researcher's preliminary sketch of that activity type, itself grounded in its institutional preconditions. Within the Pragma-Dialectical framework, communicative activity types are conceived as highly conventionalized practices. While this emphasis on conventionalization facilitates the identification of institutional preconditions, it also creates limitations for the retrieval of argumentative patterns. As Musi and Aakhus (2018) underscore, reliance on an aprioristic characterization of communicative activity types is especially problematic in emerging or less institutionalized contexts, such as ECCs, where such *a priori* characterizations are difficult, if not impossible, to establish. Moreover, the current approach tends to overlook secondary institutional preconditions, which may also significantly shape argumentative practice.

A second problem with the aprioristic approach is the risk of circularity: it tends to identify only those (prototypical) argumentative patterns that conform to the initial characterization, thereby easily overlooking other relevant structures. As a result, although this type of analysis can generate insights into the functioning of a given pattern and highlight similarities or differences among communicative activity types – thus offering a preliminary understanding of the relationship between argumentation and context – it remains limited. By focusing exclusively on specific, pre-established patterns, it neglects the broader range of argumentative moves and interactions occurring in actual discourse. Consequently, it falls short of providing a comprehensive account of how argumentation develops within a particular activity type or speech event.

All in all, I argue that a different and more precise characterization of patterns is necessary to overcome these conceptual shortcomings. The next section therefore presents a revised and expanded definition, together with an outline of a methodologically more effective approach.

6.4.2. Extending the notion of argumentative patterns

To improve the identification of argumentative patterns in discourse, it is essential to distinguish between a genuine pattern and any arbitrary sequence of argumentative moves, as I claim that not every sequence of moves qualifies as a pattern in the analytical sense. I

propose to introduce the notion of *argumentative configuration* to refer to sequences of argumentative moves that arises in discourse. Under certain conditions, a configuration may acquire the status of an *argumentative pattern* – that is, a configuration that holds particular significance within a given activity type. The introduction of this distinction makes it possible to separate random or incidental sequences, or merely hypothetical structures, from those that are recurrent and meaningful in context.

6.4.2.1. A revised definition of argumentative patterns

> An *argumentative configuration* is a sequence of argumentative moves which present some features, including the type of standpoint, argumentation structure or argument scheme employed, as well as other argumentative or rhetorical moves, argumentative indicators or linguistic expressions, dialogue moves or speech acts. A configuration can be observed in discourse and/or defined on theoretical basis.
>
> An *argumentative pattern* is a recurrent argumentative configuration that is relevant within an activity type. A configuration is considered *relevant* when its occurrence can be explained either in view of the general characteristics of the activity type, such as the goals and constraints of the discussants, or in relation to specific contingent *exigences* emerging in the context.

The proposed definition of *argumentative configuration* resembles the Pragma-Dialectical concept of *incidental* patterns, while the revised definition of *argumentative pattern* may appear to align with the Pragma-Dialectical concept of prototypical patterns. However, beyond the introduction of frequency as a distinguishing criterion, it is conceived here as an *empirical* notion – namely, a pattern is defined as such based on its actual recurrence and observability in discourse. This refinement enables a clearer distinction between occasional or random argumentative structures and patterns that are empirically significant within a given activity type.[111] As a result, it becomes possible to dispense with the notions of prototypical and stereotypical patterns, which introduce an additional and arguably unnecessary layer of conceptual complexity.

[111] In a way, *argumentative configuration* is a descriptive term for any sequence of argumentative moves, while *argumentative pattern* introduces an evaluative dimension, denoting a configuration that is significant in an activity type.

Moreover, according to this definition, a pattern is not necessarily defined on the basis of the institutional point of the activity type or to its general features. Rather, it may be linked to a more specific *exigence* emerging within the context: a concrete problem or circumstance that becomes particularly relevant to the discussion. For instance, in European Parliament debates, an argumentative pattern may arise in connection with a specific issue or event that holds particular salience at that moment, for instance climate change, a financial crisis or some other specific event or situation. Such *contingent exigencies* are inherently time-sensitive and can be related to the Greek notion of *kairós*, referring to a critical or opportune circumstance.

Furthermore, this reconceptualization does not restrict the identification of configurations or patterns to the traditional Pragma-Dialectical elements (a)-(d). As anticipated above, a significant sequence need not be defined through all these components but instead might be defined by other salient features. For example, a configuration marked by the consistent use of a specific argumentative indicator may, within this revised framework, qualify as a potential pattern, even though it would not satisfy the conditions of the original definition.[112]

6.4.2.2. Sketching an empirical methodology

Methodologically, this reconceptualization leans toward an empirical approach avoiding the aprioristic characterization of argumentative patterns and the resulting circularity, while still preserving the central role of contextual analysis. An argumentative pattern is an argumentative configuration that is *observably* employed by arguers in a specific context as a means of strategically conducting argumentative discussions – consequently, its identification necessarily requires empirical analysis.

Argumentative configurations can be identified through a bottom-up process that begins with an empirical analysis of discourses, which can include the argumentative reconstruction as well as the annotation or identification of other elements.[113] Alternatively, argumentative configurations can be theoretically hypothesized on the basis of a contextual model; however, even in the latter case, for a configuration to qualify as a pattern, it must be empirically verified in discourse.

[112] Examples of configurations and patterns defined by different elements are presented in §6.4.3.

[113] This latter point will be clarified in §6.4.3.

An argumentative configuration that, despite appearing potentially relevant, does not recur within the activity type, does not qualify as a pattern. Conversely, a recurrent configuration that cannot be explained in terms of the activity type's features or of a *kairos*-exigence also fails to qualify as a pattern. In the latter case, this discrepancy may be due to overlooked contextual factors, thereby prompting a more refined re-analysis of the activity type.

The methodological approach proposed here is intended as an empirical one, as it focuses on the analysis of actual discourse and draws on the data of argumentative reality. Rather than imposing predefined categories or idealized models, it seeks to identify patterns that emerge organically from the discourse itself. However, this empirical orientation does not entail the exclusion of theoretical insight. On the contrary, theoretical constructs – particularly those involved in context modelling – remain essential to the process. Contextual analysis and the reconstruction of institutional preconditions enable to determine whether a configuration is relevant in the activity type and, consequently, qualifies as a pattern. Moreover, theoretically modelling the context allows to formulate hypotheses regarding potential configuration and guiding their identification, also helping to assess whether a configuration – a candidate argumentative pattern – is worth investigating.[114]

The sketched methodology offers two key advantages. First, by grounding analysis in discourse reality, it mitigates the risk of adopting an abstract, *a priori* framework, instead emphasizing configurations that are demonstrably present in actual argumentative practices. Consequently, it enables the observation of what genuinely occurs in context-specific argumentation without overlooking potentially significant configurations or strategies. Second, it facilitates the refinement of the preconditions associated with the activity type, potentially revealing previously overlooked features and contributing to a more comprehensive understanding of the context in which argumentation takes place.

Additionally, such a reconceptualization allows to identify also patterns in less institutionalized contexts, as it does not require necessarily a previous characterization of

[114] As Rocci et al. (2024) underscore, "not all argumentation is equally worth "mining" and that we have a better chance of understanding the effects of argumentation on its context on a large scale if we choose to observe the distribution, not just of any feature of argumentation, but of features that we have principled theoretical reasons to relate to fundamental dynamics of the activity type."

the activity type – therefore overcoming the abovementioned issue foreshadowed by Musi and Aakhus (2018).

Ultimately, the central aim of this investigation is to explore how the context in which discourse occurs shapes the form and function of argumentation, and conversely, how argumentation may reflect – or fail to reflect – the contextual features of the communicative activity type. Crucially, the proposed method entails a continuous *back-and-forth* between empirical observation and theoretical reflection: insights drawn from the data inform and challenge contextual modelling, allowing researchers to test and refine the initial reconstruction of the activity type and to gain a deeper understanding of its functioning. At the same time, theoretical and contextual knowledge guides the interpretation and classification of emerging patterns. This iterative dynamic ensures that the analysis remains grounded in actual discourse while remaining sensitive to the broader communicative and institutional settings in which it unfolds.

The investigation of how a specific configuration is employed across different contexts – a more "Pragma-Dialectical" type of study focused on what is referred to as a *prototypical pattern* in the classical conception – remains a valuable line of research, though I argue that it has a different scope and aim. This type of analysis begins with the identification or sketching of a configuration on a theoretical basis and, through empirical analysis of instances of this configuration the analyst aims at uncovering salient features of both the configuration itself and, potentially, of the communicative activity type in which it appears. A similar study, exemplified by Jansen's (2023) analysis of the "*I'm not stupid*" argument within an informal legal context, is designed to analyse and evaluate this particular construction, aiming to develop an interpretation that allows the researcher to "ascertain the elements that make up a fully developed argumentative pattern of this type of argument" (Jansen, 2023:544). This type of analysis does not aim to offer a comprehensive account of how argumentation functions within a given setting; rather, it seeks to clarify the internal structure and functioning of a particular type of argument. While this remains a valuable form of investigation, it serves a different purpose than research that aims to map argumentation more broadly within a specific context.

The next section provides some examples of argumentative configurations and patterns with different characterizations and illustrates how the extended definition and the revised

methodology proposed allow to better capture relevant argumentative strategies and their connection with the context.

6.4.3. Exemplifying the reconceptualization of argumentative patterns

To exemplify the definitions of argumentative configurations and patterns and the methodology hinted at above I will discuss some instances of constructions that emerged as relevant in the activity type of ECCs and have been described in preceding publications.

6.4.3.1. Pragmatic argumentative configurations

Some examples that can be found in the literature are *closed-list questions* (Rocci et al., 2024), *requests of confirmation of inference* (ROCOIs) (Rocci and Raimondo, 2018, 2018; D'Agostino and Rocci, 2024) and *prefaced questions* (Lucchini et al., 2022; Lucchini et al., 2024; Lucchini et al.,2025), all of which are recurrently observed in the activity type of earnings conference calls (Palmieri et al., 2015). The argumentative functions they perform as well as their presence is explainable with reference to the institutional and communicative characteristics of the activity type.

A ROCOI is a question used by financial analysts to seek validation of an inference. While the surface act is a request for confirmation of a conclusion (*p*, based on *q*), it also indirectly invites endorsement of the underlying reasoning and premises. Examples below illustrate this configuration:

- Stefan Stallman (analyst): It seems that the savings that you outline are indeed largely targeting tech procurement, deficiency issues. *Is it fair to assume that those savings will be spread across the divisions?* (CS Q2 22)
- Irene Himona (analyst): Capital employed more than doubled basically between Q2 and the end of the year. *I presume this was due to the spike in power prices possibly more working capital for trading. Is that correct?* (SHEL Q4 22)

As shown in previous studies (Rocci and Raimondo, 2017; D'Agostino and Rocci, 2024), this type of question initiates argumentative confrontation: it puts forward a standpoint asking the interlocutor either to accept it or to justify a rejection, thereby possibly opening a *mixed confrontation*. Although the specific type of standpoint and arguments they employ vary across instances, the speech act structure remains consistent: the analyst presents a reasoning (*asserting* or *presupposing* it) and invites the interlocutor

to endorse its outcome through a *question*. These analyses also highlight that the ROCOI fulfils various communicative functions associated with the analyst's role in this context (Rocci and Raimondo, 2017; D'Agostino and Rocci, 2024), thereby qualifying as a potential argumentative pattern. Its status as a pattern is subsequently confirmed through quantitative analysis of its recurrence.

Prefaced questions, already discussed in §4.4.3.3.1, are sequences of assertive and interrogative statements occurring in various activity types, including earnings conference calls and political press conferences (Lucchini et al., 2022; Lucchini et al., 2025). Consider the following examples, in which questions are accompanied by *prefaces* (underlined), i.e., assertive statements that precede, follow, or are embedded in a question, which convey information relevant to the question and present a form of argumentation that legitimizes it.

- Mark Mahaney (analyst): You just talked about having this record day. I think you said last Saturday and I think you're also maybe appropriately cautioning about third-quarter trends and variance and Delta. So just kind of put those things together. Record day still sounds like things are good, but I'm sure there are some warnings out there. Can you be more specific about you're seeing that's causing you to be just a little more cautious about Q3 and the back half of the year? Thanks. (ABNB Q2 21)
- Vicky Young (journalist, BBC news): Prime Minister, one of your top health advisors suggested this morning that we should all minimize our socializing over Christmas. Was she right to say that? (Boris Johnson COVID-19 press conference, 30.11.21)

Prefaces function as arguments supporting the performance of a specific questioning illocutionary act aimed at eliciting a substantive response (Palmieri, 2015; Lucchini et al., 2022; Lucchini et al., 2025). In ECCs and political press conferences, prefacing a question is often a strategic move serving institutional goals (Lucchini et al., 2022).

Both ROCOIs and prefaced questions do not consistently exhibit the same standpoints, argument schemes, or argumentative structures across instances; rather, what remains stable is the underlying sequence of speech acts. Furthermore, both structures can become manifest in different forms – or *allo-patterns* (D'Agostino and Rocci, 2024) – and constitute "families" of argumentative configurations that may vary according to features

such as argumentative elements or the use of specific indicators. For example, both (3) and (4) employ indirect reported speech in the preface, a strategy shown to enhance the compelling force of the question (Lucchini et al., 2024; Lucchini et al., 2025). These instances form a sub-class: *prefaced questions employing reportative* – or *hearsay*. In this sense, they present as a defining feature – beside the pragmatic-dialogical structure common to all prefaced questions – the presence of a type of linguistic indicator.[115]

Despite their contextual relevance and strategic function, such configurations and their sub-types would not be captured by the classical definition of argumentative patterns. Moreover, as their argumentative function is only indirectly linked to the institutional point of the activity type, the standard Pragma-Dialectical approach would likely fail to anticipate or identify their presence.

Methodologically, the research on these patterns adopts an empirical approach, as the configurations of ROCOIs and prefaced questions are first identified through the analysis of discourse and subsequently verified for their recurrence and contextual relevance, thereby confirming their status as argumentative patterns. The identification of these configurations relies on the annotation of dialogical moves within the investigated activity type – specifically, of *prefaces*, *questions*, and *types of requests*. This demonstrates that research on argumentative patterns does not necessarily require the full argumentative reconstruction of entire discourses but can rely on different levels of analysis. Nevertheless, reconstructing the argumentative structure of instances of retrieved configurations can represent a valuable additional step toward understanding the inferential and argumentative functioning of the pattern.

6.4.4. Investigating evidential argumentative patterns

As this dissertation focuses on the role evidential plays in ECCs as argumentative indicators of moves and of argumentative patterns, and the relation among these elements, the analysis in Ch. 9 will concentrate on argumentative patterns characterized by the presence of evidential frames, which I term *evidential argumentative patterns*. As argued

[115] Another sub-class may include elements that respond to a contingent exigence – a *kairòs* emerging as particularly urgent in the context; for instance, the configuration of *prefaced question referring to the climate change*. This type of configuration can also be identified through discourse analysis or targeted annotation, focusing on lexical indicators of thematic content.

above, argumentative patterns can be identified not only through their structural properties but also in terms of specific recurring indicators.

The class of evidential argumentative patterns can be further subdivided into categories defined by both the *type of evidentiality* and the *position within the argumentative structure* in which the indicator occurs – namely, whether the evidential frame appears in a premise, a conclusion, or an intermediate conclusion. In this sense, some illustrative examples of evidential argumentative patterns – which will be discussed in detail in the following chapter – are *managers' arguments containing a direct evidential in the premise*, or the already cited *analysts' prefaced questions employing a hearsay evidential*.

These patterns are identified through the integration of the two layers of annotation: by cross-referencing the data from evidentials and argumentative moves, correlations can be observed as recurring configurations. Such configurations are then analysed against the backdrop of the modelized context, that is, in relation to the features of the activity type, in order to assess whether they can properly be considered as argumentative patterns. Furthermore, these configurations – or patterns – or representative instances thereof can be subjected to more fine-grained analysis.

7. Evidentials in earnings conference calls

The present chapter, together with Chapters 8 and 9, presents and discusses the results of this work. Specifically, this chapter focuses on the first research question (see §§1.2 and 5.2) – *How are evidentials used in earnings conference calls by managers and analysts?* The analysis aims at investigating the type of evidentials used by participants in ECCs through a mixed method approach that combines quantitative analysis of annotation results with qualitative fine-grained analysis of examples.

The analysis is organized into three sections, each of which addresses a different dimension of the data. Section §7.1 provides a general overview of the results, offering a quantitative picture of the distribution of epistential frames in the corpus. This initial overview serves to contextualize the subsequent, more detailed analyses and highlights the main tendencies that emerge from the annotation. Section §7.2 turns to the specific expressions employed by participants in ECCs. The objective here is to sketch a dictionary of epistential expressions characteristic of this activity type. This inventory goes beyond a simple listing of terms by providing a description and analysis of each expression, capturing its specific features, illustrating how participants mobilize it in interaction, and highlighting the distinctions that can be drawn between different forms.

Sections §7.3 then, moving beyond the descriptive level and focusing more specifically on evidentiality, examines the functions of evidentials in greater depth. It examines how managers and analysts, respectively, employ evidentials in ECCs. Particular attention is paid to how representation of knowledge and knowledge source reflects role-specific interactive goals and constraints, and to whether evidentials are strategically mobilized to achieve these goals.

7.1. Epistentials in ECCs: a general overview

On the basis of the annotation described in the previous chapter, a total of **2369** occurrences of epistential frames were retrieved. Each of these frames corresponds to a single operator.

7.1.1. Distribution of evidentiality types

Turning to the distribution of evidential features, Table 1 presents the relative frequency of the *Evidentiality Types* found in the annotated frames.

Table 1. Distribution of Evidentiality types

Common knowledge	5	<1%
Direct	376	16%
Hearsay	371	16%
Inferential	660	28%
Subjective	850	36%
Unspecified evidentiality	107	5%
Total	*2369*	*100%*

Common knowledge evidentials are the least represented, with only 5 occurrences (<1%), whereas *subjective* evidentials dominate the distribution, with 850 occurrences (36%). *Inferential* evidentials are also frequent, accounting for 660 occurrences (28%), while *direct* and *hearsay* are nearly balanced, at 376 and 371 occurrences respectively (≈16% each). Finally, 107 operators (5%) were annotated as *unspecified*, i.e., epistential operators without an identifiable evidential value.

The rarity of *common knowledge* markers is particularly noteworthy. Given that participants in ECCs belong to a community of financial experts who can be assumed to share a substantial common ground, one might expect common knowledge expressions to be more frequent. However, their scarcity can be explained precisely by this sharedness: because such information is assumed to be mutually accessible, speakers do not need to explicitly mark it as such. Moreover, overtly framing information as common knowledge (e.g., through expressions such as *everybody knows*) may even carry manipulative or disingenuous connotations (see the discussion in §8.2.4), which participants in ECCs may wish to avoid.

The predominance of *subjective* evidentials suggests a strong tendency among speakers – managers in particular (see §§7.2.1.5 and 7.3) – to present information as grounded in their own thoughts, or opinions. This preference aligns with a pragmatic function often associated with these expressions, namely that of *hedging*: by attributing a claim to personal evaluation rather than to external sources, speakers can simultaneously project authority and manage potential face risks.

The comparable proportions of *direct* (376, 16%) and *hearsay* (371, 16%) evidentials should not be interpreted as reflecting a balanced use of these two types within the same

speaker role. Instead, this distribution corresponds to a division of labour between participants in ECCs: as I will show in the next section, managers tend to rely on direct evidentials, drawing on their privileged access to internal company information, while analysts typically employ hearsay evidentials, grounding their questions or comments in information attributed to the managers themselves or to third parties (e.g., media reports or market rumours). The near equivalence in frequency thus emerges at the corpus level, but it reflects complementary discursive practices across roles rather than an individual speaker strategy. This differentiation is consistent with the institutional dynamics of ECCs, where managers are positioned as the authoritative source of corporate knowledge, and analysts act as intermediaries who bring external perspectives into the interaction.

Finally, the 5% of operators annotated as *unspecified* includes instances where an epistential operator does not carry an identifiable evidential value. This particular category will be discussed briefly below in §7.1.2 (see Table 3). Methodologically, it signals the boundaries of the annotation scheme, which must account for linguistic items that perform an epistemic function without specifying a source of information. From an analytical perspective, the existence of this category may reflect a deliberate avoidance of source-marking by speakers, a strategy that allows them to hedge claims without committing to either subjectivity or external validation.

7.1.2. Distribution of epistemic modality types

Turning to the *Epistemic Modality* feature, Table 2 displays the distribution of the annotated types:

Table 2. Distribution of Epistemic modality types

Doubt	22	1%
Possibility	109	5%
Probability	1132	48%
Certainty	863	36%
Unspecified	243	10%
Total	*2369*	*100%*

The distribution reveals a clear preference for *probability* (1133 occurrences, 48%) and *certainty* (863, 36%). Together, these two categories constitute the overwhelming majority of epistemic markers, suggesting that participants in ECCs typically use epistential

operators to present claims as either highly likely or confidently established. By contrast, weaker modalities such as *possibility* (5%) and especially *doubt* (1%) are rare, which indicates that speakers avoid using epistential operators to explicitly mark information as strongly uncertain.

The predominance of *probability* over *certainty* is especially significant. While speakers express certainty in over one-third of cases, probabilistic framing is even more common. This reflects the prospective orientation of ECCs, and financial communication in general: much of the interaction involves forecasting, interpreting signals, or speculating about future developments, for which probability provides a flexible epistemic stance. In this way, participants balance the need to appear authoritative with the necessity of acknowledging inherent uncertainty.

The *unspecified* category (242 occurrences, 10%) deserves particular attention. These are not simply ambiguous cases; rather, as explained in the annotation procedure in Ch. 6 (§6.2.3.3), they involve markers that perform an evidential function but do not clearly encode a degree of certainty. Frequently, they occur in expressions where knowledge is attributed to the interlocutor or to a third party (e.g., "*you heard*", "*as you see*"). This type of evidential anchoring serves a pragmatic purpose: it allows speakers to position themselves relative to shared or externally attributed knowledge without committing to a specific level of epistemic strength. In this sense, the unspecified category reflects a discursive strategy of delegating or diffusing epistemic commitment, which contrasts with the self-anchored stance typical of subjective and probabilistic expressions.

Table 3 shows the distribution of epistemic modality types within the class of *unspecified evidentiality*, which does not encode a source of knowledge but only signals a degree of epistemic certainty.

Table 3. Types of Epistemic modality in Unspecified evidentiality frames

Doubt	20	19%
Possibility	7	6%
Certainty	80	74%
Total	*107*	*100%*

Breaking down the category of operators unspecified as to evidentiality, it emerges that the majority express *certainty* (80), followed by *doubt* (20) and *possibility* (7). This

distribution shows that when evidentiality is absent, epistemic modality tends to cluster at the poles – either reinforcing certainty or, more rarely, signalling doubt. In other words, operators functioning purely as markers of epistemic stance (without evidential anchoring) are disproportionately used to either strengthen commitment or, conversely, to highlight risk and hesitation. From a discourse perspective, this distribution is revealing. It suggests that evidential and epistemic functions are not always tightly coupled: speakers may sometimes choose to forgo evidential specification while still signalling their degree of commitment. The prevalence of "certainty" points to a strategy where claims are reinforced as certain without grounding in an explicit source, while the smaller set of "doubt" and "possibility" illustrates cases where uncertainty is foregrounded without attribution.

7.1.3. Distribution of cognizer types

Looking at the dimension of the *Cognizer*, Table 4 shows the distribution of the *Cognizer Types* among the annotated operators.

Table 4. Distribution of Cognizer types

Speaker only	897	38%
Speaker	708	30%
Speaker + Hearer	28	1%
Speaker + Other	455	19%
Hearer	279	12%
Other	2	<1%
Total	*2369*	*100%*

The most represented category is that of *Speaker only* (897 occurrences, 38%), followed by *Speaker* (708, 30%). The latter category comprises those cases "when the speakers present themselves as (part of) the cognizer but also frame the proposition (*p*) as intersubjectively available, that is, accessible to others, without explicitly indicating that anyone else knows *p*" (§6.2.3.4). *Speaker* + *Other*, which represents the 19% of the total, indicates that the cognizer is both the speaker and a third party, and is typically used by managers to include the whole management – or even the whole company – in the knowledge attribution. By framing a piece of information as something "*we know*", the

manager not only partially shifts the responsibility, but also represents the firm as a cohesive entity and creates a sense of cooperation and unity. Attributions to the *Hearer* amount to the 12%, with 279 instances, while the explicit inclusion of the hearer in an intersubjective construction (*Speaker* + *Hearer*) represents only the 1% with 28 occurrences. Attributions to a third party (*Other*) is almost non-existent, with only 2 occurrences.

As a general observation, epistentials are predominantly used to indicate the speakers' epistemic statuses, sometimes extending beyond the individual speaker to include other participants – either intersubjectively or through the construction of a "plural" cognizer - while the attributions to third parties are considerably less frequent. In Table 5 below we can see more in detail to which types of evidentiality the types of cognizer are associated.

Table 5. Cognizer types per Evidentiality type

	Speaker only		**Speaker**		**Speaker + Hearer**		***Total***
Common knowledge	0	0%	5	1%	0	0%	*5*
Direct	12	1%	8	1%	3	11%	*376*
Hearsay	2	0%	181	26%	21	**75%**	*371*
Inferential	100	11%	482	**68%**	3	11%	*660*
Subjective	736	**82%**	12	2%	0	0%	*850*
Unspecified evidentiality	47	5%	20	3%	1	4%	*107*
Total	*897*	*100%*	*708*	*100%*	*28*	*100%*	*2369*
	Speaker + Other		**Hearer**		**Other**		***Total***
Common knowledge	0	0%	0	0%	0	0%	*708*
Direct	276	**61%**	79	28%	0	0%	*383*
Hearsay	10	2%	156	**56%**	0	0%	*621*
Inferential	56	12%	17	6%	1	50%	*353*
Subjective	100	22%	1	0.4%	1	50%	*104*
Unspecified evidentiality	13	3%	26	9%	0	0%	*2408*
Total	*455*	*100%*	*279*	*100%*	*2*	*100%*	*736*

The predominance of *subjective* evidentiality when the cognizer is Speaker only (82%) and *inferential* evidentiality for Speaker (68%) is not surprising. This distribution confirms the opposing nature of these categories in terms of accessibility: subjective evidentiality characterizes personal opinions held exclusively by the speaker, while inferential evidentiality functions as an inherently intersubjective category.

When the cognizer encompasses both Speaker and Hearer – representing an explicitly intersubjective perspective that includes the interlocutor – *hearsay* evidentiality emerges

as the predominant type (71%). This finding reflects the nature of information shared specifically between speaker and interlocutor(s) in the ECC context: such information typically forms part of the discursive common ground, often originating from previous utterances by other participants in the conversation.

The category Speaker + Other is an interesting case, with direct evidentiality as the predominant type. As anticipated in §6.2.3.4, this cognizer type corresponds predominantly to instances where the manager-speaker includes the company or management within the cognizer. Thus, when managers speak on behalf of the company, they typically characterize knowledge as directly acquired. This pattern represents a crucial communicative strategy that will be examined in detail in §7.3.3 and §7.3.4.

Out of the 2369 frames analysed, the cognizer is textually explicit, i.e., explicitly encoded by a full noun phrase or a pronoun, in 1468 cases, with *Speaker only* representing the most frequent type, as shown in Table 6, which displays the distribution of cognizer types when explicitly expressed in the text.

Table 6. Frequency of textually explicit cognizer and distribution across Cognizer types.

	Occurrences of textually explicit cognizer	**Total occurrences**	**% of textually explicit occurrences**
Speaker only	890	897	99%
Speaker	0	716	100%
Speaker + Hearer	4	28	14%
Speaker + Other	446	455	98%
Hearer	118	279	42%
Other	2	2	100%
Total	*1468*	*2369*	*62%*

It emerges quite clearly that cognizers consisting of either the speaker alone or a plural entity – typically management or the company as a whole – tend to be textually explicit. This pattern stems primarily from the association of these cognizer types with verbal expressions that take pronouns as subjects, whether singular ("*I*") or plural ("*we*"), or with expressions such as "*in my/our opinion*". Conversely, in intersubjective constructions with *Speaker* as cognizer, this component remains implicit. As we will see, a substantial number

of these frames employ adverbial expressions or constructions such as "*it seems that*", which do not require an explicit subject.

7.1.4. Distribution of source types

I can now move to the last component of the epistential frame, the *source*. As I explained in the previous chapter, in the adopted framework, this component is not always necessarily textually explicit. According to the annotated data, in the corpus the source is textually present only in the 20% of the total (**476** frames). Table 7 shows the distribution of such cases across the evidentiality types.

Table 7. Frequency of textually explicit sources and distribution across Evidentiality types.

	Occurrences of textually explicit source	**Total occurrences**	**% (textually explicitly / total of type occurrences)**
Common knowledge	0	5	0%
Direct	35	379	9%
Hearsay	366	369	9%
Inferential	98	659	15%
Subjective	1	850	0%
Unspecified evidentiality	1	107	1%
Total	*476*	*2369*	*20%*

As shown in the table, the source of information remains implicit in the majority of cases across all categories. The only notable exception is the hearsay category, in which the source is made textually explicit in 93% of occurrences. By contrast, all other categories display a strong tendency toward source omission: explicit marking is relatively limited in inferential (15%) and direct evidentials (9%), and virtually absent in subjective, common knowledge, and unspecified evidentiality.

Overall, these results indicate that the explicit encoding of the information source is not a general feature of evidential marking in the dataset, but rather a category-specific tendency that is strongly associated with hearsay. This suggests that hearsay expressions are systematically oriented toward the overt specification of the source.

7.1.5. Companies

To conclude this quantitative overview, it is useful to examine the distribution of evidentials across the different earnings calls, as this provides an initial indication of possible company-specific patterns in evidential usage.

Table 8 reports the length of each ECC in number of words, while Table 9 presents the total occurrences of annotated epistential frames.

Table 8. N. of words per each call

	Q1	Q2	Q3	Q4	*total*
ABNB	9241	8398	8254	8851	*34744*
CS	11003	8161	3709	9225	*32098*
DASH	6382	4400	6286	8121	*25189*
SHEL	10003	10188	9773	11425	*41389*
Total	*36629*	*31147*	*28022*	*37622*	*133420*

Table 9. Occurrences of annotated Epistential frames

	Q1	Q2	Q3	Q4	*total*
ABNB	186	169	131	162	*648*
CS	243	212	81	269	*805*
DASH	88	53	83	110	*334*
SHEL	146	154	125	157	*582*
Total	*663*	*588*	*420*	*698*	*2369*

To account for variations in call length and enable comparison across calls, I calculated the normalized frequency of epistential frames per 1000 words for each call. Table 10 presents these standardized frequency rates.

Table 10. Normalized relative frequency of Epistential frames in each call per 1000 words.

	Q1	Q2	Q3	Q4	*total*
ABNB	20.128	20.124	15.871	18.303	*18.651*
CS	22.085	25.977	21.839	29.160	*25.079*

DASH	13.789	12.045	13.204	13.545	*13.260*
SHEL	14.596	15.116	12.790	13.742	*14.062*
total	*18.100*	*18.878*	*14.988*	*18.553*	*17.756*

The normalized data reveal that Credit Suisse (CS) consistently displays the highest relative frequency of epistential frames, both across quarters and overall (25.08 occurrences per 1,000 words). Conversely, DoorDash (DASH) presents the lowest normalized frequency overall (13.26 per 1,000 words).

A one-way ANOVA confirms that the differences in normalized frequencies among companies are statistically significant ($F(3,12) = 25.27$, $p < 0.001$), supporting the conclusion that each company exhibits a distinct evidential density profile.

We can now turn to observing the frequency of the different types of evidentials in the different companies.

Table 11. Types of evidentials in companies

	ABNB	CS	DASH	SHEL
Common knowledge	0%	0%	0%	1%
Direct	26%	6%	21%	16%
Hearsay	10%	18%	19%	16%
Inferential	21%	34%	27%	28%
Subjective	39%	37%	28%	36%
Unspecified evidentiality	5%	5%	4%	3%
	100%	*100%*	*100%*	*100%*

Table 11 presents the proportional distribution of evidential types by company. Across all four companies, subjective evidentials are the most frequent category, confirming the overall dominance of speaker-centred epistemic marking in the corpus. For CS, DASH, and SHEL, inferential evidentials rank second, while in ABNB the second most frequent type is direct evidentiality, which is among the least used categories for the other three companies. A Chi-square test of independence confirms that these differences in distribution are highly significant ($\chi^2(15) = 165.87$, $p < 0.001$), indicating that each company exhibits a distinct evidential profile.

Finally, Table 12 shows the distribution of evidential types across companies.

Table 12. Distribution of evidentiality types across companies

	ABNB	CS	DASH	SHEL	
Common knowledge	0%	0%	34%	66%	100%
Direct	42%	10%	26%	22%	100%
Hearsay	17%	33%	26%	24%	100%
Inferential	21%	36%	20%	23%	100%
Subjective	30%	30%	16%	23%	100%
Unspecified evidentiality	32%	32%	21%	16%	100%

Although the general proportions are relatively stable, slight variations can be observed – for example, a higher share of hearsay and inferential evidentials in CS, and a comparatively greater use of direct evidentials in ABNB. These results indicate that, while the overall evidential profile is broadly consistent across companies, subtle company-specific preferences in evidential strategies nevertheless emerge. These differences may be related to corporate communicative styles, potentially shaped by sectoral conventions or by the company's financial situation, as well as to the individual rhetorical and argumentative styles of specific managers and analysts. Such tendencies merit further qualitative investigation.

7.2. Epistential expressions in ECCs

This sections delves deeper into the analysis of the specific expressions retrieved through the annotation. Firstly, in §7.2.1, I will sketch a dictionary, providing an overview of the different expressions employed, observing the distribution of the lemmas across the different evidentiality types to understand the variety and the "conventionalization" of epistential expressions. Mainly, I will try to determine whether there is a correlation between forms and functions, namely, whether the same lemma (or the same operator) always expresses the same evidentiality type or, if not, what are the most recurring patterns. §7.2.2 will analyse the distribution of lemmas across the six evidentiality categories to determine whether there are distinct patterns in both lexical diversity and usage frequency. Lastly, §7.2.3 will discuss more in detail turn the specific expressions that carry evidential value.

7.2.1. Building a dictionary of epistential expressions in ECCs

Based on the 2369 operators annotated in the corpus, I extracted **145** distinct lemmas. The lemmatization process presented considerable challenges due to the heterogeneous nature of the operators, which included periphrastic expressions with minor morphosyntactic variations (e.g., "*the guidance is*" versus "*it was in the guidance*", or "*if I do the math*" versus "*if I do the arithmetic*") and polysemous expressions requiring contextual disambiguation. These complexities will be addressed in detail in subsequent sections analysing specific expressions within each evidentiality type.

The frequency distribution of lemmas reveals a highly skewed pattern characteristic of Zipfian distributions (Zipf, 1949) commonly observed in linguistic phenomena. The two most frequent lemmas – TO THINK (32.26%, 761) and TO SEE (16.11%, 380) – together account for nearly half (48.37%) of all annotated operators. This concentration becomes even more pronounced when examining the top quartile: the four most frequent lemmas (TO THINK, TO SEE, TO SAY, and OBVIOUSLY) represent 60.5% of the total corpus, demonstrating a clear pattern of lexical concentration. Accordingly, the distribution exhibits a characteristic long-tail pattern. Beyond the top four lemmas, the frequency rapidly decreases: eight lemmas occupy the mid-frequency range (20-99 occurrences), while the remaining 132 lemmas (91.0% of unique lemmas) occur fewer than 20 times each. Notably, 122 lemmas (84.1%) appear fewer than 10 times, with 59 lemmas (40.7%) occurring as *hapax* (single occurrences). This distribution suggests a core-periphery structure where a small number of highly frequent operators dominate usage, while a substantial portion of the lexical repertoire consists of low-frequency, specialized expressions.

The high degree of lexical concentration observed indicates that epistential expressions in this corpus rely heavily on a limited set of lemmas, while maintaining a rich inventory of less frequent alternatives that may serve specialized pragmatic or stylistic functions. The next section focuses on the dimension of evidentiality, observing the distribution of lemmas across the different evidentiality types.

	N.	%
TO THINK	761	32.26%
TO SEE	380	16.11%
TO SAY	145	6.15%
OBVIOUSLY	141	5.98%
CLEARLY	92	3.90%
TO EXPECT	73	3.09%
TO MENTION	66	2.80%
TO KNOW	60	2.54%
TO TALK ABOUT	47	1.99%
PROBABLY	45	1.91%
CERTAINLY	42	1.78%
TO BELIEVE	40	1.70%
TO SEEM	20	0.85%
TO FEEL	19	0.81%
TO GUESS	17	0.72%
TO SHOW	17	0.72%
MAYBE	16	0.68%
TO SOUND LIKE	14	0.59%
MAY	13	0.55%
TO INDICATE	13	0.55%
TO SEEM LIKE	13	0.55%
TO ANNOUNCE	12	0.51%
TO MEAN	10	0.42%
TO BE SURE	9	0.38%
TO LOOK LIKE	9	0.38%
TO THINK ABOUT	9	0.38%
TO UNDERSTAND	9	0.38%
OF COURSE	8	0.34%
TO BE AWARE	8	0.34%
TO BE CLEAR	8	0.34%
TO TELL	8	0.34%
TO LOOK	8	0.34%
TO DEMONSTRATE	7	0.30%
TO FIND	7	0.30%
TO HEAR	7	0.30%
TO NOTICE	7	0.30%

	N.	%
TO ALLUDE	6	0.25%
TO ASSUME	6	0.25%
TO HOPE	6	0.25%
TO NOTE	6	0.25%
COMMENT	5	0.21%
HOPEFULLY	5	0.21%
TO DISCUSS	5	0.21%
TO SUGGEST	5	0.21%
TO SUPPOSE	5	0.21%
ONE'S UNDERSTANDING (TO BE)	4	0.17%
TO BE CONSCIOUS	4	0.17%
THERE + BE A COMMENT	4	0.17%
TO IMAGINE	4	0.17%
TO PROVE	4	0.17%
SHOULD	3	0.13%
TO BE CONFIDENT	3	0.13%
TO DESCRIBE	3	0.13%
TO GIVE	3	0.13%
TO OUTLINE	3	0.13%
TO PRESUME	3	0.13%
TO REALIZE	3	0.13%
TO REPORT	3	0.13%
WOULD	3	0.13%
CAN	2	0.08%
GUIDANCE (TO BE/TO BE IN)	2	0.08%
IN THE SHAREHOLDER LETTER	2	0.08%
PRESUMABLY	2	0.08%
TO APPEAR	2	0.08%
TO BE AN EVIDENCE	2	0.08%
TO BE AN EXAMPLE	2	0.08%
TO BE AN INDICATION	2	0.08%
TO BE CONVINCED	2	0.08%
TO BE OBVIOUS	2	0.08%
TO BE OPTIMISTIC	2	0.08%
THERE + BE NO QUESTION	2	0.08%
TO CALL OUT	2	0.08%

	N.	%
TO DISCLOSE	2	0.08%
TO DO THE ARITHMETIC / MAT	2	0.08%
TO ESTIMATE	2	0.08%
TO GUIDE	2	0.08%
TO HIGHLIGHT	2	0.08%
TO IMPLY	2	0.08%
TO MAKE A POINT ABOUT	2	0.08%
TO MAKE CLEAR	2	0.08%
TO ME	2	0.08%
TO POINT OUT	2	0.08%
TO PRESENT	2	0.08%
TO REFER	2	0.08%
TO REFERENCE	2	0.08%
TO SUMMARIZE	2	0.08%
ACCORDING TO	1	0.04%
APPROXIMATELY	1	0.04%
COMMONT CONSENT	1	0.04%
COMMUNICATION	1	0.04%
IN ONE'S OPINION	1	0.04%
IN THE OPENING REMARKS	1	0.04%
INDICATIONS TO BE	1	0.04%
ONE'S INTUITION	1	0.04%
POSSIBLY	1	0.04%
PRESUMPTION	1	0.04%
REPORT TO BE ABOUT	1	0.04%
THE WORDING TO BE	1	0.04%
TO BE A FACT	1	0.04%
TO BE A TREND OF	1	0.04%
TO BE COMMON SENSE	1	0.04%
TO BE HARD TO FORECAST	1	0.04%
TO BE IN THE SURVEY	1	0.04%
TO BE ONE'S IMPRESSION	1	0.04%
TO BE ONE'S INTERPRETATION	1	0.04%
TO BE (THERE)	1	0.04%
THERE + BE A FIGURE	1	0.04%
THERE + BE AN EXPECTATION	1	0.04%

	N.	%
THERE + BE NO DOUBT	1	0.04%
THERE + BE REPORTS	1	0.04%
THERE + BE RUMORS	1	0.04%
TO BE UNSURE	1	0.04%
TO BE VISIBLE	1	0.04%
TO BRING OUT	1	0.04%
TO CALL	1	0.04%
TO COME UP	1	0.04%
TO COMMIT	1	0.04%
TO COMPARE	1	0.04%
TO CONCLUDE	1	0.04%
TO COVER	1	0.04%
TO DEFINE	1	0.04%
TO EXPERIENCE	1	0.04%
TO GET	1	0.04%
TO GIVE A SENSE	1	0.04%
TO GIVE AN INDICATION	1	0.04%
TO GIVE CONFIDENCE	1	0.04%
TO INCLUDE	1	0.04%
TO LOOK BACK	1	0.04%
TO MAKE A STATEMENT	1	0.04%
TO OCCUR	1	0.04%
TO PINPOINT DOWN	1	0.04%
TO POST	1	0.04%
TO PROVIDE	1	0.04%
TO QUOTE	1	0.04%
TO READ THE REPORT	1	0.04%
TO RECALL	1	0.04%
TO RECOMMEND	1	0.04%
TO REGARD AS CERTAIN	1	0.04%
TO REMEMBER	1	0.04%
TO RULE OUT	1	0.04%
TO SPEAK	1	0.04%
TO SPEAK ABOUT	1	0.04%
TO SUSPECT	1	0.04%
TO TURN OUT	1	0.04%
TO VIEW	1	0.04%

7.2.2. Distribution across evidentiality categories

The distribution of lemmas across the six evidentiality categories reveals distinct patterns in both lexical diversity and usage frequency, providing insights into the structural organization of evidential expressions in the corpus.

Table 13.Distribution of lemmas across evidential categories (number of Lemmas, number of Occurrences, Lemmas-Occurrences ratio)

	Lemmas	Occurrences	L-O ratio
Common knowledge	4	5	0.8
Hearsay	59	371	0.2
Unspecified	15	107	0.14
Inferential	63	660	0.10
Direct	9	376	0.02
Subjective	18	850	0.02

The data demonstrates an inverse relationship between the number of unique lemmas per category and their frequency of occurrence, suggesting different patterns of conventionalization across evidential types.

When ranking evidentiality types based on the absolute number of lemmas, Inferential leads with the highest number of lemmas, followed closely by Hearsay, then Subjective, Unspecified, Direct, and finally Common knowledge.

Looking more in detail at the categories, subjective evidentiality, which appears to be the most frequent category (35.9%, 850), exhibits the lowest lexical diversity with only 18 distinct lemmas, with a lemmas-per-occurrences ratio of 0.02. This pattern indicates high conventionalization and greater specificity of the category, where a small set of highly frequent lemmas (the most frequent ones are TO THINK, TO BELIEVE, TO FEEL) accounts for most instances of subjective evidential marking. The low ratio suggests that subjective evidentiality relies on a limited inventory of highly conventionalized lemmas.

Direct evidentiality, even if considerably less frequent than subjectives, shows the same lexical diversity (ratio: 0.02). This extremely low ratio indicates that direct evidential meanings is expressed through a highly restricted set of conventional markers in the corpus; as I will show later, this is due to the predominant use of the verb TO SEE.

Inferential evidentiality and hearsay evidentiality (ratios: 0.10, 0.20) show moderate lexical diversity. These categories rely on a larger set of lemmas, suggesting a lower level of conventionalization, or a lower level of specificity of the category. In the latter case, it would mean that the inferential processes require a broader range of expressions to capture different types of reasoning processes in drawing conclusions from available evidence and hearsay employ a greater set of lemmas to encode different aspects of information transmission, particularly in relation to specific sources. As we will see, especially hearsay evidentiality includes very context-sensitive expressions.

Common knowledge (4 lemmas, 5 occurrences, ratio: 0.80) represents a particular case: it has a remarkably high ratio; as it is, however, based on a very small number of occurrences, it is not possible to draw conclusions.

7.2.3. Expressions of evidentiality in ECCs

I now turn specifically to expressions that carry evidential value. In §7.2.3.1, I examine the distribution of lemmas across evidential categories, identifying which are *monocategorical* (associated with a single category) and which are *polycategorical*, while also noting the overlapping categories. In §7.2.3.2, I analyse each type of evidentiality to determine which lemmas realize it and in what ways.

7.2.3.1. Association between lexical and evidential categories

Let us start by considering, at a general level, to how many categories of evidentiality lemmas are associated:

Table 14. Number of monocategorical and polycategorical lemmas per number of categories

Ev Types N.	**Lemmas**
1	126
2	16
3	2
4	1
Total	*145*

Out of 145 lemmas in total, 126 are associated to only one category, meaning that most lemmas are used to express only one type of evidentiality (monocategorical). The 19 remaining are associated to multiple evidentiality types, and more in detail 16 lemmas are associated to two different categories, 2 are associated to three different categories and only one (TO SEE) to even four different categories. This last case, which is discussed more in detail below (§7.2.3.9), is a non-specialized operator that can assume various meanings.

Focusing on *monocategorical lemmas* – those belonging to only one evidential category) – we can look at their distribution across evidentiality types.

Table 15. Monocategorical lemmas and association to evidential categories

	Total lemmas	Mono-categorical lemmas	%
Common knowledge	4	3	75%
Direct	9	4	44%
Hearsay	59	53	90%
Inferential	63	46	73%
Subjective	18	12	67%
Unspecified ev.	15	8	53%

Table 15 shows significant variation in categorical specialization across the field of lexical predicates recruited to form evidential markers.

Hearsay evidentiality demonstrates the highest number of mono-categorical lemmas, which corresponds to the highest degree of lexical specialization, with 90% of its lemmas (53 out of 59) being category specific. This high specialization rate indicates that reportative evidential meanings are predominantly encoded through dedicated lexical items that do not extend to other evidential functions, suggesting the development of a specialized reportative vocabulary within the corpus, congruously with the results presented in §7.2.2. Common knowledge shows high specialization, too (3 out of 4 lemmas, 75%, being mono-categorical). Inferential evidentiality exhibits a high degree of specialization as well, with 73% of its lemmas (45 out of 63) being mono-categorical. This pattern suggests that while inferential markers have developed considerable lexical specificity, they maintain some overlap with other evidential categories; I will examine those fuzzy conceptual boundaries in greater detail below. Subjective evidentiality has a slightly lower specialization rate (67%, 12 out of 18 being mono-categorical). Unspecified and Direct evidentiality show lower specialization rates (53% and 44% respectively), indicating that these categories rely more heavily on generic, versatile lemmas.

Turning to *poly-categorical* lemmas, the analysis reveals systematic patterns of cross-categorical overlap that illuminate the conceptual relationships between evidential types.

Table 16. Overlapping categories and lemmas per category

Overlapping categories	**Lemmas**
Inferential + Subjective	5
Direct + Inferential	3
Inferential + Unspecified	3
Hearsay + Inferential	3

Hearsay + Inferential + Unspecified	2
Direct + Hearsay + Inferential + Subjective	1
Common Knowledge + Inferential	1
Direct + Unspecified	1

7.2.3.1.1. Inferential-Subjective

Inferential-Subjective overlap occurs in **5** lemmas, which are TO THINK, TO THINK ABOUT, HOPEFULLY, TO IMAGINE and TO REALIZE. This reflects the conceptual affinity between inferential reasoning and subjective opinion, as both types of evidentiality indicate a cognitive process as the mode of knowing.[116] Essentially, these expressions were annotated as subjective when indicating a personal opinion not explicitly anchored in a reasoning process, whereas they were annotated as inferential when this process was clearly pointed out – in some cases also through the indication of the source as inferential basis. (96) and (97) are examples of subjective uses of TO THINK, while (98) and (99) are instances of inferential evidentials:

(96) *I think* that's very different than what we see kind of competitive platforms are doing. (ABNB_Q1_2021)

(97) *I think* we're now well-positioned for the travel rebound ahead. (ABNB_Q1_2021)

(98) *I would think* given the value prop and the frequency of the activity that could get into 60%, 70%, maybe long-term. (DASH_Q4_2021)

(99) *I think* the term alternative accommodations might be a dated term because it was appropriate 10 years ago. (ABNB_Q2_2021)

In (96) and (97), "*I think*" introduces the speakers' personal assessments without revealing the underlying reasoning process; in fact, in the co-text the speaker does not

[116] A comparable observation is put forward by Battaglia (2025), who analyses certain subjective expressions – such as the Italian *secondo me* ("in my opinion") – as functioning as inferential evidentials.

provide argument that support the opinion-conclusion, so it is not possible to identify a reasoning process. In (96), the speaker presents their view on competitive platforms as a direct personal opinion, while in (97) he expresses his belief about being "well-positioned" without exposing the evidence or inferential steps that led to this conclusion. The construction is used to signal the speaker's interiority as the sole accessible source, making the reasoning process opaque to interlocutors.

On the other hand, in (98) and (99) the cognitive processes become more transparent. In (98), "*I would think*" explicitly signals a reasoning operation based on stated premises ("given the value prop and the frequency"), making the inferential basis traceable to others. Example (99) is particularly interesting – while superficially similar to (96) and (97), "*I think*" here introduces a conclusion that's immediately supported by explicit reasoning ("because it was appropriate 10 years ago"), transforming it into an inferential where the logical process is intersubjectively accessible.

7.2.3.1.2. Direct-Inferential

Three lemmas – TO SHOW, TO LOOK, TO BE EVIDENCE – are used in constructions that span over the direct and inferential domain. Unsurprisingly, this overlap occurs with perception verbs that can denote both direct sensory experience and inferential processes based on observational *evidence*. The expression TO BE EVIDENCE exemplifies this connection at the most fundamental level: the word "evidence" derives from Latin ēvidēns, meaning "clear" or "obvious," formed by adding the prefix e- ("out of") to the perception verb vidēre ("to see"), literally meaning "to see out of" or "to bring to sight." This word formation encapsulates the direct-inferential connection, as "evidence" simultaneously denotes both the observable proof and the grounds for belief or reasoning based on that proof. As was discussed in Ch. 3, §3.3.2.3, there is a strong universal association between perception and cognition; perceptual expressions – especially sight expressions – can assume cognitive extended meanings among which inferential evidential values. As San Roque et al. (2019:375) point out, "basic perception verbs often have additional meanings that do not refer to literal sensory experience" and are often connected to the domain of cognition, so that perceptual expressions are employed metaphorically to depict mental

processes. In particular, I noted that visual predicates are the most likely to be used to refer to mental states and cognitive processes and can assume an inferential evidential meaning (see §3.3.2.3).

7.2.3.1.3. Inferential-Unspecified

Inferential-Unspecified (I+UN) combinations are attested in 3 lemmas, CERTAINLY, MAYBE and TO UNDERSTAND. The two adverbs work primarily as epistemic modals which allow an evidential reading. The verb TO UNDERSTAND, which usually denotes a cognitive process, is annotated as unspecified evidentiality in only one instance, illustrated in (100):

(100) I'm not quite sure *I understand* what's happening here.

In this context, "*I understand*" within the negated epistemic frame "*I'm not sure I understand*" effectively conveys "I don't understand". Consequently, it lacks evidential value as it signals an absence of knowledge rather than indicating a particular mode of knowing.

7.2.3.1.4. Hearsay-Inferential

Hearsay-Inferential poly-categoricality occurs three times: in the lemmas TO INDICATE, TO SUGGEST and TO SAY.

Table 17. Distribution of Hearsay-Inferential polycategorical lemmas

	Hearsay		Inferential		*Total*
to say	130	90%	15	10%	*145*
to indicate	11	85%	2	15%	*13*
to suggest	3	60%	2	40%	*5*

For all three verbs, the hearsay value is more common than the inferential value. This is unsurprising in the case of the *verba dicendi to say* and *to suggest*, while the clear preference for hearsay observed in the case of *to indicate* is more unexpected.

These verbs are trivalent and their meaning can slightly vary depending on the type of arguments they take. *To indicate* and *to suggest* present similar patterns: when they

function as hearsay evidentials, the subject – who *indicates* or *suggests* – is a person or a person's discourse, and the object – what *is indicated* or *suggested* – is the content of that discourse. On the other hand, when working as inferentiality indicators, the subject noun phrase usually refers to data or evidence and the object denotes content that is not explicitly stated but can be inferred from the data.

(101) And [on the asset sales], you *indicated* [in combination with the IB risk-weighted asset reduction of 40 to 50 basis points.]

(102) And there are press reports out there that *suggest* that [some of your high-level management that was put in place then sort of a year late it seems to the part of the organization.]

(103) […] what the early data *suggests* is that [when consumers buy from other categories in our marketplace, in addition to the food category, they subsequently now then increase their retention and engagement with the marketplace as a whole compared to customers who do not buy across categories.]

(104) We did want to set an initial target based on the overall book in terms of the leverage reduction and that's what we're giving now basically. […] I think it *does*, (*as I've indicated*,) *indicate* [a significant refocusing of prime away from being more of a stand-alone P&L center, be it with a lot of connectivity elsewhere to being seen instead as a utility to actually support the rest of the businesses] […].

These examples clearly illustrate this semantic flexibility of the two verbs based on their argument structure. In examples (101-102), both verbs function as hearsay evidentials with human agents as subjects: in (101), "*you indicated*" refers to a previous statement made by the addressee, while in (102), "*press reports…suggest*" attributes information to media sources. The evidential value here signals reported information from identifiable human or institutional sources. Conversely, examples (103-104) demonstrate inferential usage, where non-human entities serve as subjects: "*early data suggests*" in (103) presents the data itself as the source from which conclusions are drawn.

It should be noted that TO SUGGEST exhibits inherent semantic vagueness even in its hearsay function: when used reportatively, it is compatible with contexts in which the attributed content does not represent the exact words spoken, but rather something inferred

or interpreted from the original discourse, thus blurring the boundaries between reportive and inferential interpretation.

Example (104) provides a particularly striking illustration of the two meanings within a single utterance: "*as I've indicated*" functions as a hearsay evidential (referring back to the speaker's previous discourse), while "*it does indicate*" – where *it* anaphorically encapsulates the whole situation described in the preceding sentence – operates inferentially (suggesting that evidence points toward a conclusion about organizational refocusing). *To say* differs from *to indicate* and *to suggest* and presents three main patterns of inferential uses. In the first case, we find the construction *q says p* (often in pseudo-cleft sentences introduced by "*what this says*", as in (105), with *this* anaphorically referring to a situation *q* mentioned previously. A large majority of inferential occurrences of *to say* belong to the second pattern, which is the construction *I would say*, which conveys the idea that the proposition *p* is a conjecture of the speaker (see example 106). Lastly, we find the construction *you can say*, often introduced by *if you look at…*, as in (107).

(105) And I think *what this says* is that Airbnb is no longer an alternative way to travel.

(106) *I would say* there was excess demand for this, but I'm not sure, personally, I actually would want to have issued more.

(107) If you just look at how fast, particularly the East, of course, has recovered, *you can say* it is booming.

7.2.3.1.5. Common Knowledge-Inferential

The overlaps Common Knowledge-Inferential and Direct-Unspecified each appear once, meaning that there is only one lemma that assumes both values.

Common knowledge and inferential overlap in the case of OF COURSE; out of its 8 total occurrences, in 6 cases (75%) it has been annotated as inferential, while only in 2 (25%) as common knowledge. In the former cases, it assumes an inferential value as it marks a conclusion preceded by an explicit premise. In the latter case, there is no indication of an epistemological basis – no premise – leading to conclude the content in the scope.

7.2.3.1.6. Unspecified-Direct

Finally, a lemma that shows an Unspecified-Direct overlap is TO KNOW. It should be noted that this overlap is not truly representative, as TO KNOW is annotated as direct evidentiality in only one instance out of 60 occurrences, within a highly specific construction illustrated in example (108):

(108) And *as you know from previous calls*, I'm much more focused on mid- to long-term flows in terms of client business volumes.

The verb TO KNOW, by its inherent semantics, does not entail specification of a knowledge source: it indicates the state of knowing rather than the mode of acquisition. However, in this particular instance, the speaker explicitly provides the epistemological basis through the phrase "*from previous calls*". Strictly speaking, obviously it is not the verb *to know* that carries evidential value, but rather the complete construction "*you know from previous calls*" that signals the mode of knowing. From this perspective, *to know* could arguably retain its "unspecified" classification.

The entire expression was annotated as direct evidentiality because the addressee's knowledge of proposition *p* in the scope is represented as deriving from their participation in previous calls – a form of direct "experiential" access, albeit not necessarily perceptual. It clearly involves an inferential process as what is known – that the speaker is focused on something – is an internal state of the speaker, which thus the interlocutor-cognizer can know only indirectly based on the observation of the speakers' behaviour and discourses. However, it seemed that the direct classification could better capture that the speaker attributes such knowledge to the addressee on the basis of his participatory experience rather than on the subsequent inference.

7.2.3.1.7. Hearsay-Inferential-Unspecified: *to be clear* and *to tell*

Two lemmas that assume the meanings of hearsay, inferential and unspecified are TO BE CLEAR and TO TELL. Below I report the distribution of the two verbs across types of evidentiality (Table 18), followed by all instances with their annotations as to the type of evidentiality and the cognizer type.

Table 18. Distribution of *to be clear* and *to tell* across evidentiality values

	Hearsay		Inferential		Unspecified		Total
to be clear	1	10%	7	70%	2	20%	10
to tell	2	25%	5	63%	1	13%	8

Table 19. Evidentiality type and Speaker type of instances of *to be clear*

(109) So, *it is been pretty clear* that your hosts have been growing in regions that are seeing the largest demand.	inferential	speaker
(110) *It is clear* and the report makes clear that the appropriate escalation protocols were in place in both the business and in the second line and in the CPOC committee, which you'll see described there, but they were not operated by the individuals.	inferential	speaker
(111) *It is clear* that while we obviously can improve in our data systems, we can prove in the timeliness of those data systems.	inferential	speaker
(112) And *it was very clear* from the outset that there will be two enforcement necessary with external auditors involved on behalf of FINMA and we're looking forward now to working through them through both situations and take the right conclusions.	inferential	speaker
(113) And we have a very clear framework on limits, and *this is now very clear* in the organization and fully signed up by all ExB members, both the old ExB members, but also the new ExB members.	inferential	speaker
(114) Listening what we're hearing today and having a strategic update in December potentially, *I'm not exactly clear* what the update is about because on the one hand, it sounds like you have derisked, you're happy with the derisking, and now it is more seasonal adjustment to revenues and business.	unspecified evidentiality	speaker only

(115) ***I wasn't quite clear*** **on whether it is yet to come or if it is happening already.**	unspecified evidentiality	speaker only
(116) ***I've tried to be clear*** **in those quarters to note that these were relatively exceptional quarters.**	hearsay	hearer

Table 20. Evidentiality type and Speaker type of instances of *to tell*

(117) And I think ***as far as I can tell,*** **in terms of looking at the prices we achieved compared to the other prime brokers, the exit prices were broadly similar over the period of time.**	inferential	speaker only
(118) It also ***tells*** **us that there's a new paradigm in travel.**	inferential	speaker+other
(119) So this ***tells*** **us that we're on to something.**	inferential	speaker+other
(120) I know that obviously ***tells*** **that it was a big accelerator into the business.**	inferential	speaker
(121) Now that guests ***are telling*** **us that they're much more flexible about where they travel, we can point demand to where we have supply.**	hearsay	speaker+other
(122) And we provide a huge amount of trust and safety features and protocols to be able to give them peace of mind. And this is what they ***tell*** **us.**	hearsay	speaker+other
(123) Can you just give us an update on where your revenue take rate is today as a percentage of GPV just given all the timing differences? ***It is hard to tell from the outside*** **where that is.**	unspecified evidentiality	speaker

The poly-categorical behaviour of TO BE CLEAR and TO TELL shows systematic patterns in their evidential distributions.

The lemma TO BE CLEAR exhibits a clear functional distinction: when used in assertive constructions (examples 109-113), it consistently operates as an inferential evidential, with the speaker presenting conclusions drawn from observable evidence or reasoning processes. In all these instances, it has an intersubjective value and the cognizer is the intersubjective *speaker*. Conversely, in negative or uncertainty contexts (examples 114-115), where it is used in constructions as "*I'm not clear*", as it indicates lack of knowledge it does not encode any evidential meaning and thus is annotated as unspecified evidentiality – and in these two cases the cognizer is the speaker alone. Example (116) represents the only hearsay instance, where the expression "*I've tried to be clear*" refers back to the speaker's own previous discourse and, in fact, the cognizer is the hearer.

The verb TO TELL shows a different distributional pattern. It functions inferentially when it assumes the meaning of "to mean something" or "to infer something", as in the expression "*as far as I can tell*". In the latter case the subject is the speaker, who also coincides with the cognizer, while in examples 118-120 the subject is inanimate data or evidence, which "tells" something that must be interpreted or concluded. In contrast, it functions as hearsay evidentiality indicator when the source-subject is a human, and in these cases, it assumes the meaning of "to say", "to report" (examples 121-122). In example (123) it does not assume an evidential value as it is used in a negative epistemic context in the expression "*it is hard to tell*" that signals lack of knowledge.

7.2.3.1.8. A highly poly-categorical verb: the case of TO SEE

Lastly, we analyse TO SEE, a highly poly-categorical lemma that spans over four different evidential types in the annotated data.

Table 21. Values of *to see*: distribution across evidentiality types

	Direct		Hearsay		Inferential		Subjective		Total
to see	359	94.5%	2	0.5%	11	2.9%	8	2.1%	*380*

TO SEE is a perception verb and as such it is not striking that it mostly occurs in markers of direct evidentiality (359 out of 380 occurrences, 94.5%). Also, as I pointed out in §3.3.2.3 and recalled above in §7.2.3.2, perception verbs often assume an extended

cognitive meaning, which makes them good candidate to work as indicators of cognitive processes; the occurrences of TO SEE annotated as subjective and inferential evidentials are congruous with this tendency.

As we can see in Table 21, there are also two occurrences that are annotated as hearsay; although they are a small – almost insignificant (0.5% of the total occurrences) – number, it is interesting to look at these instances in detail.

(124) [And the second question is just on the distribution guidance for 2022 that you gave back in November of 25%.] Forgive me if I'm mistaken, *I can't see* any reference for that in the slide pack today, [but is that still the intention in terms of the level at which you accrue the dividend through this year?]

(125) You *will have seen* that we -- also in the introductory video that Jessica did, we talked about how we're going to use wind power on sea to turn into hydrogen, to turn into molecules and to turn into transportation fuels.

In (124) the speaker (analyst) is saying that he does not see references in the slides for the confirmation of the guidance given by the company in the previous quarter. In a way, this is an instance of *negative hearsay evidentiality*, meaning that the speaker asserts that there is no source for a certain information, and this lack is framed as relevant. We could reformulate this expression as *I can see that in the slide there is no reference* (see also Miecznikowski 2022:17-18), meaning that the lack of this reference can be *seen* in the slides provided. Evidently, here "to see" has a perceptual meaning, but nonetheless the construction essentially indicates that the mode of knowing – how he came to know this lack of reference – is the reading of the slides, thus it works as an indicator of hearsay.

Similarly, in (125) "to see" maintains its perceptual reading, but since the source for the information (*we talked about how we're going to use wind power on sea to turn into hydrogen, to turn into molecules and to turn into transportation fuel*) is the video made by the firm's management, the knowledge does not merely stem from observation, but from the company's discourse that constitutes the content of the video.

These two examples show that to identify the type of evidentiality it is necessary to take into account the co-textual aspects and the wider construction of a verb or an expression.

7.2.3.2. Evidential expressions

In this section I analyse the different lemmas used for each type of evidentiality to better understand what type of expressions are employed in ECCs to indicate the different types.

7.2.3.2.1. Expressions of common knowledge

Common knowledge is conveyed by forms of 4 lemmas in the analysed corpus: OF COURSE (2 occurrences), *to be common consent* (1 occurrence), *to be a fact* (1 occurrence) and TO BE COMMON SENSE (1 occurrence).

While OF COURSE and TO BE A FACT are associated with *certainty*, TO BE COMMON CONSENT and TO BE COMMON SENSE are associated with probability. In all 5 occurrences, the cognizer is *Speaker* (which, I remind, is used when the speakers present themselves as (part of) the cognizer but also frame the proposition (*p*) as intersubjectively available.

7.2.3.2.2. Expressions of direct evidentiality

Direct evidentiality, as noted in §7.2.2, is among the evidentiality types with the lowest lemma-occurrences ratio: 379 markers use only 9 lemmas (l-o ratio: 0.02), the most frequent by far being TO SEE (which was analysed more in detail in the previous section).

Table 22. Occurrences and distribution of direct evidentiality lemmas

Lemma	Occurrences	%
to see	359	95.5%
to notice	7	1.9%
to show	3	0.8%
to look	2	0.5%
to know	1	0.3%
to be evidence	1	0.3%
to be there	1	0.3%
to be visible	1	0.3%

to experience	1	0.3%
Total	*376*	*100.0%*

As might be expected, most lemmas are related to the semantic sphere of *vision* (6 out of 9: TO SEE, TO NOTICE, TO SHOW, TO LOOK, TO BE AN EVIDENCE, TO BE VISIBLE); the others are related to an experience of participation – TO EXPERIENCE, TO BE THERE and TO KNOW. The instance of *to know* that assumes a direct evidential value is the one already discussed in §7.2.3.6 in Example 13 (*And as you know from previous calls, I'm much more focused on mid- to long-term flows in terms of client business volumes*), where the expression "*you know from previous calls*" frames the knowledge as acquired through the participation in specific events (the calls). These expressions of direct evidentiality show a connection with the notion of *egophoricity* discussed in §3.1.2.5: I do not consider egophoricity as an evidential category *per se*, but it emerges as a meaning pragmatically conveyed by some direct evidentials that express participation.

We can now look at the type of epistemic modality conveyed by direct evidentials in the analysed corpus.

Table 23. Occurrences and distribution of direct evidentiality lemmas across epistemic modality types

Ep. Modality	**N.**	**%**
Certainty	312	83%
Unspecified	62	16%
Probability	1	<1%
Doubt	1	<1%
Total	*376*	*100%*

Looking at the data in Table 23, it becomes clear that they predominantly express a high degree of certainty (312, 83%). This is not surprising: as direct evidentials encode firsthand perceptual sources, speakers imply that they are quite certain about *p*.

We notice that the second most represented type of epistemic modality is that of *unspecified* (62, 17%); looking more in detail in these instances, it emerges that all of them attribute the cognizer role to the hearer, which explains why the certainty degree is not indicated.

Table 24. Instances of direct evidentiality lemmas annotated as doubt and probability

(126) And is there any color you can provide on how important that is in terms of the economics of these transactions because ultimately is something *we just don't see*.	doubt
(127) I think Shell is operating three rigs or so *as far as I can see*.	probability

The two instances annotated as doubt and probability, respectively, are shown in Table 24.

(126) is annotated as doubt because the speaker asserts that she is *not seeing* something, so she lacks an information; this operator could also be annotated as unspecified epistemic modality – as it is a non-knowledge – however marking it as doubt is more useful as it signals that the speaker addresses a missing information.

(127) is an interesting case: the construction "*as far as I can see*" is a hedging expression which indicates that the speaker observes something but is not completely sure about it. This partial uncertainty is reinforced by the presence of "*I think*", which has the same function.

7.2.3.2.3. Expressions of hearsay evidentiality

As already said above, hearsay evidentiality exhibits one of the highest lexical diversity relative to its frequency, with 59 lemmas across 369 occurrences (ratio: 0.20). Now we look more in detail at these lemmas, which are reported in Table 25.

Table 25. Occurrences and distribution of hearsay evidentiality lemmas

Lemma	**Occurrences**
to say	130
to mention	66

to talk about	47
to announce	12
to indicate	11
to hear	7
to note	6
to allude	6
comment	5
to discuss	5
to be there a comment	4
to suggest	3
to describe	3
to give	3
to outline	3
to report	3
to see	2
to tell	2
guidance (to be/to be in)	2
in the shareholder letter	2
to call out	2
to disclose	2
to guide	2
to highlight	2
to make a point about	2
to make clear	2
to point out	2

to present	2
to refer	2
to reference	2
to summarize	2
to include	2
to be clear	1
according to	1
communication	1
in the opening remarks	1
indications to be	1
report to be about	1
the wording to be	1
to be in the survey	1
to be there a figure	1
to be there an expectation	1
to be there reports	1
to be there rumors	1
to bring out	1
to call	1
to come up	1
to commit	1
to cover	1
to define	1
to make a statement	1
to pinpoint down	1

to post	1	*to recommend*	1
to provide	1	*to speak*	1
to quote	1	*to speak about*	1
to read the report	1		

It is interesting to notice the variety of expressions used to indicate someone else's words. The reporting of others' speeches is a central and strategical discursive practice in financial communication and in ECCs, which are *polylogical* and *polyphonic* (see Ch. 4, §4.2.2). ECCs are *polylogues within polylogues* that show a high degree of intertextuality with other texts. This is also related to the fact that ECCs are argumentative activity types, where participants need to back up their assertions.

Clearly, the majority of lemmas, including especially the most frequent ones, are *verba dicendi* or connected constructions. Some of them are basic, everyday life words and expressions – such as *to say*, which was commented in Section 7.2.3.4, *to mention*, *to talk about* – but others are more specific to the context of financial communication and ECCs. For instance, GUIDANCE (TO BE/TO BE IN), IN THE SHAREHOLDER LETTER, IN THE OPENING REMARKS, INDICATIONS TO BE, REPORT TO BE ABOUT, TO BE IN THE SURVEY, TO BE THERE REPORTS, TO BE THERE RUMORS. These constructions, which in many cases also indicate the source (*shareholder letter*, *opening remarks, survey*, *reports*, *rumors*), are genre and field specific and wouldn't have been identified through a semasiological dictionary-based approach.

Turning to the analysis of the source invoked in hearsay frames, it emerges that 366 (99%) of the annotated hearsay frames have a textually explicit source while only 5 (1%) do not have an explicit source.

To get a more thorough understanding, I analysed what are the *kinds of sources* invoked by speakers – who is quoted. I suggest to distinguish the following categories: *Corporate communication*, which includes all the discourses and texts – oral or written – produced by the firms' management, including managers quoted by other managers; *Hearer*, when speakers attribute a statement to their interlocutors; *Third party,* when the source is

someone else, e.g., clients, other firms or institutions; *Speaker*, which includes all instances of self-quoting; *Speaker + Other* when speakers (usually managers) quote a plurality in which they are included, e.g., in expressions as *"As we said*"; and *Undefined* when no source is quoted nor it is possible to reconstruct any source on the basis of the text.

Table 26. Source type distribution in hearsay

Type of source	**N.**	**%**
Corporate communication	66	18%
Hearer	127	34%
Third party	27	8%
Speaker	76	20%
Speaker + Others	72	19%
Undefined	3	1%
Total	*371*	*100%*

The most frequent type of source appears to be the *Hearer* (127, 34%), followed by *Speaker* (76, 20%) and *Speaker + Others* (71, 19%) which, in a way, constitute two subclasses of one category – self-quotation – and *Corporate communication* (66, 18%). *Third party* is the less frequently employed type of source (respectively, 28, 8%). In only 3 cases out of 371 (amounting to the 1%) the source remains undefined.

There is an apparent slight incongruence between the two sets of data: as shown in Table 26, 5 hearsay frames do not present a textually explicit source, but in Table 27 we see that only 3 instances are analysed as *Undefined*. This is explained by the fact that, although the source is not explicitly mentioned, in two cases it is possible to reconstruct it.

Table 27. Instances of hearsay evidentials with *undefined source*

(128) Now, one of the most common obstacles *we heard* are that people were nervous about their home being damaged when they rented out to guests.	Undefined
(129) Tony or Prabir, in light of *some speculation on M&A that's come up* somewhat recently, I wanted to see if we could revisit how you guys are thinking about both new market entry and also specifically weighing up sort of build versus buy options for doing that.	Undefined
(130) And *what we heard over and again* was they really want a choice, choice on the spectrum of investing you know in growth and in which case, they can pick some of the higher-priced plans that allows them participation in programs like DashPass, where DoorDash is covering the cost of delivery	Undefined
(131) Because *one of the key communications* that I understood is that Credit Suisse immediately changed, for example, the way you margin in your prime brokerage, went from static to dynamic, and yet the report seems to suggest that systems are fine.	Corporate communication
(132) I think you're aware of this and *it is been discussed before*, but we've always, in the past, operated from two entities here in the U.K., Credit Suisse International and Credit Suisse Securities Limited, CSSL.	Speaker + Others

While in (128)-(130) the speakers clearly employ vague expressions backgrounding the sources[117] – possibly due to a strategic choice or to the irrelevance of the latter – in (131) and (132) it is possible to identify the origin of the information. In the first case, we understand that the speaker is indicating that the information in *p* has been obtained from previous communications made by the company – generally, reports and disclosure, and in some cases even the previous discussion in the call. In (132), although the manager-speaker uses an impersonal passive construction – *it has been discussed* – which backgrounds the agent who *discussed*, it seems plausible that he is referring to previous

[117] It could be argued that in (33) "people" could constitute the source; however, it would also be plausible for the source to be someone or something else – who in turn reported that people were nervous. For this reason it was analysed as *unspecified*.

discussions between the company and the interlocutors (analysts), also because he is talking about the company's previous actions, attributing the piece of knowledge to the interlocutor.

As we will see more in detail in §7.3, the distribution of source types greatly differs across managers and analysts (see also Lucchini et al., 2025).

7.2.3.2.4. Expressions of inferential evidentiality

In §7.2.2 I discussed how inferential evidentiality demonstrates moderate lexical diversity, employing 63 lemmas (for 660 occurrences; ratio: 0.10). This means that, similarly to hearsay, inferential meanings require a broader range of expressions to capture different types of reasoning processes in drawing conclusions from available evidence.

As displayed in Table 28, the 5 most used lemmas (*OBVIOUSLY*, *CLEARLY*, *TO EXPECT*, *PROBABLY*, *CERTAINLY*) alone account for approximately 60% of markers of inferential evidentiality.

Table 28. Occurrences and distribution of inferential evidentiality lemmas

Lemma	Occurrences
obviously	141
clearly	92
to expect	73
probably	45
certainly	37
to seem	20
to say	15
to show	14
to sound like	14
may	13
to seem like	13
to see	11
maybe	11
to mean	10
to look like	9
to understand	8
to be clear	7
to demonstrate	7
to find	7
to think about	6
of course	6
to look	6
to tell	5

to think	5
to suppose	5
to assume	4
one's understanding (to be)	4
to prove	4
hopefully	3
to imagine	3
should	3
to presume	3
would	3
to indicate	2
to suggest	2
to realize	2
can	2
presumably	2
to appear	2
to be an example	2
to be obvious	2
to do the arithmetic / math	2
to estimate	2
to imply	2
to be an evidence of	1
to guess	1
to be an indication	1
approximately	1
possibly	1
presumption	1
to be a trend of	1
to be one's interpretation	1
to compare	1
to conclude	1
to get	1
to give a sense	1
to give an indication	1
to give confidence	1
to look back	1
to occur	1
to remember	1
to rule out	1
to suspect	1
to turn out	1

As we saw for the previous categories, also in this case there are some interesting expressions, as TO BE A TREND OF and TO DO THE ARITHMETIC / MATH – quite common in the financial discourse – which we find in two cases, illustrated in (133) and (134).

(133) *If you did the same math* for some of these other categories that we're entering, be it convenience, grocery and others, that number is very, very, very small single digits.

(134) *If I do the arithmetic*, these people on attrition, around CHF3 million of bonus to be clawed back.

These expressions indicate that the speakers' information sources are in both cases "a *calculation*, i.e., a special kind of inference" (Miecznikowski, 2020:56).[118]

Looking at the type of epistemic modality expressed, inferentials mostly indicate high degree of certainty, as shown in Table 29:

Table 29. Occurrences and distribution of inferential evidentiality lemmas across epistemic mdoality types

Ep. modality	**N.**	**%**
Certainty	306	46%
Probability	260	39%
Possibility	77	12%
Doubt	1	<1%
Unspecified	16	2%
Total	*660*	*100%*

7.2.3.2.5. Expressions of subjective evidentiality

Lastly, subjective evidentiality is the category with the lowest lemma-occurrences ratio (<0.02), employing only 18 lemmas to account for 850 occurrences.

Table 30. Occurrences and distribution of subjective evidentiality lemmas

118 Miecznikowski (2020) discusses a similar example, pointing out its justificatory force.

Lemma	Occurrences
to think	756
to believe	40
to feel	19
to see	8
to hope	6
to think about	3
to be confident	3
hopefully	2
to imagine	1
to realize	1
to be convinced	2
to be optimistic	2
to me	2
in one's opinion	1
one's intuition	1
to be one's impression	1
to recall	1
to view	1

TO THINK alone accounts for approximately the 90% of the subjective frames. In second place we find TO BELIEVE (40, 5%) and in third TO FEEL (19, 2%) – although by far less frequent.

It is quite interesting to find these kinds of expressions in ECCs – institutional dialogues that should revolve around financial data, strategies and results. However, as was detailed in Ch. 4, one of the most important source of knowledge in ECCs is exactly the discussion about *soft* information – nonmaterial data, management's perceptions, previsions and attitudes. Managers' *feelings* are indeed relevant for the market.

Table 31 displays the distribution of subjective frames across the different types of epistemic modality.

Table 31. Occurrences and distribution of subjective evidentials across epistemic modality types

Ep. modality	**N.**	**%**
Certainty	33	4%
Probability	796	94%
Possibility	20	2%
Doubt	0	0%
Unspecified	1	<1%
Total	*850*	*100%*

By far, *probability* is the most frequent one (796, 94%).

Lastly, it is worth examining the types of Cognizers associated with subjective evidentials.

Table 32. Occurrences and distribution of subjective evidentials across cognizer type

Cognizer Type	**N.**	**%**
Speaker only	736	87%
Speaker	12	1%
Speaker + Hearer	0	0%
Speaker + Other	100	12%
Hearer	1	<1%

Other	1	<1%
Total	*850*	*100%*

As expected, the Cognizer is most frequently the speaker alone (*Speaker only*, 736, 87%), followed by *Speaker + Other* (100, 12%). The latter refers to plural subjects that include the speaker along with others – most often used by managers to refer to the management team or the organization as a whole. Only two instances attribute a subjective opinion to someone other than the speaker: one to the *Hearer* and one to another individual (*Other*).

7.3. Distribution of epistentials among participants

In this section, I focus on use of evidentials by participants, comparing how analysts and managers use these markers. In particular, I will verify the hypothesis that they employ different types of evidentials, as they have access to different sources, and thus that the use of evidentials reflects the basic epistemic asymmetry of ECCs discussed in Ch. 4. Furthermore, I will show that evidentials are used strategically in discourse.

7.3.1. General overview – distribution

Observing the distribution of evidentials across speakers, we can distinguish analysts and managers. Table 33 displays the total occurrences of evidential frames annotated in managers' and analysts' turns.

Table 33. Distribution of evidentiality types across speakers turns (managers vs analysts)

Evidentiality type	**Analysts**	**Managers**	**Total**
Common knowledge	1	4	*5*
Direct	47	329	*376*
Hearsay	162	209	*371*
Inferential	176	484	*660*
Subjective	67	783	*850*
Unspecified	36	71	*107*
Total	489	1880	*2369*

Managers seem to employ way more evidentials than analysts, however, managers speak substantially more than analysts – 510 turns (116,125 tokens) versus 383 turns (33,650 tokens) – which accounts for the disparity in raw counts of evidential markers and, to correct for this imbalance, frequencies in each evidential category were normalized per 1,000 tokens.

$$Rate\ per\ 1{,}000\ tokens\ = \frac{Count}{Total\ tokens} \times 1000$$

Once normalized, the data reveal meaningful proportional differences between the groups, as displayed in Table 34:

Table 34. Normalized distribution of evidentiality types across managers vs analysts turns

Evidentiality type	**Analysts**	**Managers**
Common knowledge	0.03	0.03
Direct	1.4	2.83
Hearsay	4.81	1.8
Inferential	5.23	4.17
Subjective	1.99	6.74
Unspecified	1.07	0.61
Total	14.53	16.18

Managers used evidential markers significantly more often than analysts overall (16.18 vs. 14.53 per 1,000 tokens), corresponding to an incidence-rate ratio of approximately 1.11 ($p \approx .035$). However, this difference, while statistically detectable, is modest; the more salient contrast lies in the qualitative distribution of evidentiality types across speaker roles. While analysts favour hearsay and inferential evidentiality, suggesting that they more often refer to information derived from others or inferred from evidence, managers display markedly higher rates of direct and especially subjective evidentiality, indicating a stronger reliance on personally experienced or attitudinally marked information. Common knowledge evidentials remain marginal in both groups, also given the low number of occurrences in the corpus.

To verify whether the distribution of evidential types differs between the two speaker groups and the association between speaker roles and specific evidentiality types, I conducted a Pearson's Chi-squared test. The common knowledge category was removed from the dataset because its very low frequency (only 1 occurrence for analysts and 4 for managers) violated the minimum expected count assumptions required for Pearson's chi-squared testing. The results are displayed in Table 35:

Table 35. Chi-squared test results - distribution of evidentiality types in managers vs analysts turns

Category	Speaker	Observed	Expected	χ^2 statistic
Common knowledge	**Analysts**	1	1.03	0.0010
	Managers	4	3.97	0.0003
Direct	**Analysts**	47	77.61	12.07
	Managers	329	298.39	3.14
Hearsay	**Analysts**	162	76.58	95.28
	Managers	209	294.42	24.78
Inferential	**Analysts**	176	136.23	11.61
	Managers	484	523.77	3.02
Subjective	**Analysts**	67	175.45	67.04
	Managers	783	674.55	17.44
Unspecified evidentiality	**Analysts**	36	22.09	8.76
	Managers	71	84.91	2.28

The test revealed a highly significant association between the two variables, $\chi^2(5) = 245.42$, $p < .001$. This result indicates that the observed differences in evidentiality use between analysts and managers are not due to random variation but reflect a systematic relationship between speaker role and evidentiality type. In other words, their role in the activity type strongly influences the evidential strategies employed in the corpus. As was noted above, analysts use far more hearsay markers than expected (165 vs. 78.31), while

mangers use them much less than expected (206 vs. 292.69). Conversely, subjective evidentials are used more than expected by managers (780 vs. 670.58 expected) and underused by analysts (70 vs. 179.42 expected). Smaller but still meaningful deviations appear in the direct, inferential, and unspecified categories. In particular, we can notice that managers are associated to (i.e., use more than expected) direct evidentials, while analysts are associated to inferentials. This confirms that managers employ more often evidential strategies that indicate that knowledge is either acquired through direct, perceptual sources or is a personal opinion or belief (so in a way is as well not "mediated"). On the other hand, analysts need to rely on third parties' information or on their inferences, possibly drawn on the basis of those reported information. In general, these differences point to different "epistemic orientations" between analysts and managers, which possibly reflect their respective statuses as outsiders vs insiders. This point will be discussed more in detail in §7.3.4.

Before analysing in depth this aspect, we can look in analysts' and managers' turns also at the distribution of types of epistemic modality and cognizer.

7.3.2. Analysts

7.3.2.1. Epistemic modality

Table 36 displays the distribution of the types of epistemic modality in analysts' turns.

Table 36. Distribution of epistemic modality types in analysts turns

Epistemic modality	N.	%
Doubt	9	2%
Possibility	43	9%
Probability	217	44%
Certainty	206	42%
Unspecified	14	3%
Total	*489*	*100%*

The distribution of epistemic modality types in analysts' turns shows a marked predominance of expressions of *probability* (217, 44%) and *certainty* (206, 42%). Together, these two categories account for a large proportion of epistemic frames (86%),

while *possibility* (43, 9%), *doubt* (9, 2%), and *unspecified* instances (14, 3%) occur only sporadically. The strong presence of probability and certainty markers in analysts' discourse is a noteworthy finding. Although analysts act as questioners in ECCs – and are therefore, by default, in a -K position relative to managers as answerers (see §4.4.3) – they frequently frame their assertions with high certainty. The relative scarcity of expressions of doubt or uncertainty may seem counterintuitive at first. This prevalence of certainty and probability markers can be interpreted as a strategy to maintain credibility and signal to both investors and managers that the analysts already possess a strong knowledge base. Investors, in particular, expect analysts to be competent professionals with accurate information about the firms they cover. Furthermore, presenting information or assertions with certainty strengthens the question's justification, making it more difficult for managers to contest the premises on which the question is based. In other words, even though analysts occupy a -K position as questioners, when asserting information to contextualize or justify their questions, they strategically project confidence and authority.

From an argumentative perspective, the prevalence of probability and certainty markers aligns with the persuasive and evaluative functions of analysts' turns: by modulating epistemic strength, analysts not only express their own stance but also negotiate alignment with management and signal competence to their audience. In this sense, this epistemic positioning thus contributes to the co-construction of their credibility and positioning as authorities during the calls.

7.3.2.2. Cognizer type

Table 37. Distribution of cognizer types in analysts turns

Cognizer type	**N.**	**%**
Speaker only	143	29%
Speaker	299	61%
Speaker + Hearer	0	0%
Speaker + Other	32	7%
Hearer	14	3%
Other	1	<1%
Total	*489*	*100%*

The analysis of cognizer types reveals a clear predominance of epistemic frames attributed to the *speaker*. Instances in which *speaker only* is construed as the source of knowledge (143, 29%) and those where the *speaker* presents the proposition as *intersubjectively accessible* (299, 61%) together account for 90% of the cases. In contrast, references involving other cognizers – *Speaker + other* (32, 7%), *Hearer* (14, 3%), and O*ther* (1, <1%) – are comparatively rare, and no instances of *Speaker + Hearer* configurations are attested.

Crucially, the high proportion of *Speaker* cases indicates that analysts in most cases represent their knowledge as intersubjectively available (see §6.2.3.4). In these instances, the epistemic stance is presented as shared with the interlocutors. This is also related to the fact that analysts, as highlighted above (§7.3.1), prefer hearsay and inferential evidentials, thus indicate that their knowledge stems either from previous discourses – usually referring to managers' own disclosures from the same call – that are available also to the rest of the participants[119], or from inferences which are based on shared premises.[120] In a similar vein, the few occurrences of *Speaker + Other* cognizers (7%) likely correspond to cases where an analyst uses a plural "*we*" to include the other analysts – in a rather general way – to indicate that the piece of knowledge is available to the investing community.

In only a very small proportion of cases (3%), analysts explicitly attribute knowledge or beliefs to managers (*Speaker + Hearer*), and in just one instance the cognizer is a third party. This latter case, illustrated in (40), involves the analyst's reference to an undefined collective ("*many people*"), as shown below:

(135) In short, at what point do you decide that you've got to do more to have the value that sits in your business, although I think <u>*many people believe*</u> what sits in your business is recognized in your share price? (SHEL_Q1_2021)

In this example, the analyst attributes a belief (that the company's market value is adequately reflected in its share price) to an indistinct, external group of "people". By invoking this unspecified collective, the analyst constructs a polyphonic concession: the utterance incorporates multiple voices, allowing the speaker to acknowledge the presence an alternative viewpoint without however endorsing it – the proposition in the scope, the

[119] Although analysts also often have private conversations with managers, they, most probably because of liability and legal reasons, never refer (at least explicitly) to them.

[120] On the intersubjective nature of inferentials, see Ch. 3 and 6.

reflection value-share price, is something that the analyst is explicitly denying. This strategy enables the analyst to distance themselves from the attributed belief while still engaging with it as a relevant element in the evaluative dialogue.

The rarity of such cases underscores that analysts rarely attribute epistemic authority either to management or to external actors. When they do, as in (135), the attribution functions as a rhetorical device rather than a genuine redistribution of epistemic responsibility. In this way, the use of external cognizers serves to dialogize the discourse, introducing heteroglossic voices that enrich argumentation without undermining the analyst's position as the primary epistemic agent in the interaction.

7.3.3. Managers

7.3.3.1. Epistemic modality

Turning to managers' epistemic strategies, Table 38 displays the distribution of epistemic modality types in their turns.

Table 38. Distribution of epistemic modality categories in managers turns

Epistemic modality	**N.**	**%**
Doubt	13	1%
Possibility	66	4%
Probability	913	49%
Certainty	660	35%
Unspecified	228	12%
Total	*1880*	*100%*

The distribution of epistemic modality in managers' discourse reveals a broadly similar pattern to that observed in analysts' turns, although with notable differences in both the scale and the proportional distribution. *Probability* constitutes the most frequent category (913, 49%), followed by *certainty* (660, 35%). Together, these two categories account for 84% of all epistemic expressions, indicating that managers, like analysts, predominantly construct their discourse around relatively high degrees of epistemic commitment. However, the distribution differs from analysts' usage in two key respects: first, managers show a clearer preference for probability over certainty (a 14% points difference,

compared to the analysts' near-equal division of 44% and 42%); second, managers employ a substantially higher proportion of *unspecified* markers (228, 12% versus analysts' 3%).

This greater reliance on probability markers can be understood in light of managers' twofold communicative objectives during earnings calls (see §4.4.2). As corporate representatives must convey an "optimally positive" valuation – one that is both favourable and sustainable – they cannot afford to epistemically overcommit to overly optimistic predictions. In this sense, employing probability markers is a way for them to mitigate the certainty degree of their assertions. The preference for probability over certainty thus might reflect managers' awareness of the risks associated with overvaluation: by modulating epistemic strength toward probability rather than certainty, managers can present forward-looking statements and strategic initiatives in a positive light while simultaneously building in epistemic hedging that protects against unrealistic market expectations. This balance allows them to meet the dual requirement of transparency identified by Laskin (2021:3) – disclosing both positive and negative information – without undermining investor confidence or setting unsustainable performance benchmarks.

The notably higher proportion of unspecified markers in managers' discourse (12% versus 3% for analysts) further reflects this strategic balancing act. While certainty markers would signal strong commitment and confidence, and probability markers indicate assessed likelihood, unspecified epistemic expressions allow managers to remain interpretively flexible. This is particularly useful given the agency relationship between managers and investors: managers must justify their decisions and actions as optimal, especially when performance results are negative, while at the same time they need to avoid excessive commitment that could expose them to future accountability issues. The use of unspecified markers is thus strategic for managers insofar it allows them to frame their choice as deliberate and themselves as competent without asserting a commitment they cannot maintain.

Finally, possibility and doubt markers remain marginal in managers' turns (66, 4% and 13, 1%, respectively), though slightly less than in analysts' discourse (9% and 2%). The near absence of explicit doubt markers is consistent with managers' need to maintain investor trust and demonstrate that they have effectively fulfilled their responsibilities, as to express overt doubt would undermine their credibility precisely when they need to reassure investors of their competence and commitment to safeguarding the firm's

interests. This is especially critical during challenging periods when negative results require managerial justification: managers must frame their behaviours and choices as deliberate and well-considered, a stance incompatible with explicit expressions of epistemic uncertainty.

7.3.3.2. Cognizer type

Looking at the types of cognizer employed by managers, the picture that emerges differs significantly from that of analysts' discourse.

Table 39. Distribution of cognizer types in managers turns

Cognizer type	N.	%
Speaker only	754	40%
Speaker	409	22%
Speaker + Hearer	28	1%
Speaker + Other	423	23%
Hearer	265	14%
Other	1	<1%
Total	*1880*	*100%*

The distribution of cognizer types in managers' discourse reveals a more fragmented and diversified pattern compared to analysts' speaker-oriented framing. The most frequent category is *Speaker only* (754, 40%), which represents cases where managers position themselves as the sole source of epistemic authority. This is followed by two nearly equal categories: *Speaker + Other* (423, 23%) and the intersubjective *Speaker* (409, 22%). *Hearer* accounts for 14% of cases (265), while *Speaker + Hearer* (28, 1%) and *Other* (1, <1%) are marginal.

Compared to the distribution in analysts' discourse – where *Speaker only* and *Speaker* together account for 90% of epistential frames – managers show more variation as to cognizer types in epistential expressions. This difference reflects fundamentally distinct interactional goals and institutional constraints.

The relatively high proportion of Speaker only cases (40%), though lower than analysts' speaker-centred framing, nonetheless aligns with managers' strong incentive to portray themselves as knowledgeable and well-informed (see §4.4.3) and aligns with the

consistent use of subjective and direct evidentials (§7.3.1). By representing themselves as the sole epistemic source, managers signal to the investing community that they are competent representatives of the company, capable of making informed decisions and handling operations effectively. This epistemic framing is particularly critical when justifying strategic decisions or responding to challenging questions about company performance: by constructing their knowledge as privileged and authoritative, managers not only reassure investors that they fulfil their supervisory duties but also position themselves as trustworthy sources of information, thereby bolstering the credibility of their disclosures. Within the agency relationship, this individualized epistemic authority serves to demonstrate that managers possess the insider knowledge and expertise necessary to safeguard the firm's interests.

The substantial presence of *Speaker + Other* cognizers (23%) is on the one hand an extension of this individual authority, insofar as this authority is distributed across the wider management team and represented as a collectively aligned epistemic position, and at the same time can work as a hedging strategy, distributing the responsibility among the company representatives. By employing plural ("*we*") constructions, in fact, the speaker includes other members of management or the broader organization and distribute epistemic responsibility across the corporate collective. This serves multiple functions in view of the managers' communicative objectives (see §4.4.3.1). First, it allows managers to share accountability for assessments, particularly when discussing forward-looking statements or justifying past decisions that may have led to negative results. Second, it constructs corporate decisions as the product of collective deliberation rather than individual judgment, thereby reinforcing the notion that choices were deliberate and well-considered while simultaneously demonstrating that managers are not acting in isolation but within a collaborative organizational framework. Third, it mitigates the risk of personal liability by diffusing epistemic commitment across multiple organizational agents. Importantly, this collective framing does not undermine managers' portrayal of competence; rather, it enhances it by suggesting that their knowledge is both personally authoritative and institutionally validated through organizational consensus.

The intersubjective *Speaker* category (22%) further illustrates managers' strategic epistemic positioning. By presenting epistemic assessments as shared with interlocutors – and possibly others – managers construct their knowledge claims as verifiable and transparent. This intersubjective framing thus reinforces managers' positioning as

trustworthy sources of information by suggesting that their assessments are not idiosyncratic but grounded in evidence accessible to others.

The relatively higher proportion of *Hearer* cognizers in managers' discourse (14%) compared to analysts' (3%) requires particular attention. When managers attribute knowledge to analysts, representing a piece of information as something they are expected to know, such information is framed as not questionable, and it is harder for analysts to challenge it. This strategy can be interpreted as a defensive and persuasive move that leverages on the construction of a common ground that cannot be easily denied or countered. Additionally, by acknowledging analysts' or investors' perspectives or beliefs, managers can demonstrate attention and responsiveness, showing to be in touch with their interlocutors' knowledge and positions.

The near absence of *Speaker* + *Hearer* configurations (1%) suggests that managers rarely position themselves and analysts as sharing a unified epistemic stance, and that they rarely refer to pieces of information disclosed during the call. This contrasts with the more collaborative framing that *Speaker* + *Other* provides within the management team and might indicate a reluctance to construct a joint epistemic authority with analysts. It shows that managers portray themselves as having different sources than analysts, thus reflecting – and constructing discursively – the epistemic asymmetry between the two parts. Moreover, it aligns with managers' authority-claiming goal, as maintaining epistemic primacy vis-à-vis analysts is essential for preserving their positioning as the most knowledgeable and authoritative sources regarding company affairs.

7.3.4. Managers see, analysts hear. Displaying the epistemic asymmetry

An interesting opposition that emerges from the analysis of evidentiality distribution is that of direct vs indirect evidentiality types – direct and subjective vs hearsay and inferential. While managers prefer the former, analysts favour the latter, and this clearly reflects their respective statuses as insiders vs outsiders and thus the existing epistemic asymmetry between them. In particular, the contrast between direct and hearsay evidentials is semantically closely related to the distinction between insiders and outsiders (with regard to a company's dealings).

7.3.4.1. Uses of *direct* in managers' discourse

As highlighted in §§3.3.2.3 and 6.2.1.1, perception terms functioning as direct evidentials are frequently combined with non-material objects in financial communication and ECCs – objects that are per se not observable by the senses. I have argued that in many similar cases, perception terms maintain not only semantic but also pragmatic characteristics of direct evidentials, serving to establish epistemic authority even when applied to abstract financial phenomena.

(136) Jessica Uhl (SHEL CFO): There are genuine supply issues that are being felt across the energy system, and that does put pressure on gas prices. ***We're certainly seeing*** that in Europe and in LNG specifically, and that could continue for some time in terms of into the first and second quarter. (RDS Q4_21)

(137) Thomas Gottstein (CS CEO): And as a consequence of that, ***we really saw*** in Q4, a very low activity in new business. (CS_Q4_21)

In examples (136) and (137), the speaker-managers present supply issues across the energy system and low activity in new business, respectively, as phenomena that they and the company ("*we*") see, thereby framing these abstract economic conditions as if they were perceptually accessible. An accurate description of the epistemic foundations underlying such statements would not identify a single, direct perceptual source, but rather a complex chain of knowledge acquisition involving multiple stages: direct observation of market phenomena, quantitative measurement, mathematical and accounting analysis, and report transmission from accountants to managers. The verb *to see* effectively compresses this elaborate epistemic chain into a singular, seemingly immediate source of knowledge. Following the analytical framework established in §6.2.1.1, these uses can be understood as involving synecdochic and metonymic extensions of the perception verb.

In example (136), while "*supply issues*" and "*pressure on gas prices*" are not visible entities in the environment, knowledge about them derives from market events – actual supply flows, price movements, transaction volumes – recorded through measurement techniques and synthesized through accounting systems. The verb *to see* undergoes a synecdochic extension to globally describe this multi-stage process of observation, data acquisition, and interpretation, framing the resulting information as perceptually warranted. Moreover, it is highly plausible that management visually inspected the elaborated data in graphical form – charts, dashboards, tables – which warrants further extensions: metonymic (the reading of a document being related to the phenomena

described in that document through a complex chain of human actions and institutional processes) and metaphoric (since graphic representations in finance are often iconic signs bearing structural similarities to the phenomena they describe, such as upward-sloping lines representing growth). In this sense, *to see* maintains multiple conceptual connections to the sensory domain even though the perception it invokes is technologically and institutionally mediated.

Similarly, in example (137), "*low activity in new business*" characterizes an abstract business condition derived from aggregated transactional data. The managerial accounting process functions as a semiotic system that enables managers to "see" complex economic phenomena through their quantitative and visual representations. This framing presents the accounting infrastructure as transparent and unproblematic, positioning managers as having privileged, relatively immediate access to organizational reality.

The epistemic-pragmatic implications of these constructions are significant. Considering the verb's default epistemic modal value of certainty – which is reinforced by the adverbs *certainly* (example 136) and *really* (example 137) – the resulting rhetorical effect conveys a taken-for-granted reliability of the managerial information system and suggests managers' privileged access to the knowledge it produces. As Bergqvist and Grzech (2023:21) argue, when speakers "use an evidential that does not appear to align with the contextual circumstances in terms of perceptual-cognitive accessibility, this choice rests on whether the speaker wishes to claim or defer epistemic authority". The managers' deployment of direct evidentials in these contexts clearly serves to claim epistemic authority. By semantically compressing the mediated epistemic chain into direct perception, managers position themselves as possessing unmediated access to organizational and market realities.

At the interactional level, this rhetorical strategy allows managers to present the information in *p* as belonging to their epistemic territory and to underscore their epistemic primacy and authority regarding that information – coherently with their epistemic status as company insiders and their institutional role within the interaction scheme of ECCs. The use of direct evidentials thus becomes a linguistic resource through which managers enact their professional identity as authorities on matters concerning the company's business, reinforcing investor confidence even when discussing challenging conditions such as supply constraints or declining business activity.

7.3.4.2. Uses of *hearsay* in analysts vs managers

As I said above, data clearly show that hearsay evidentials are associated to analysts. However, it also emerges that managers, too, make wide use of hearsay. To better understand the distinct patterns characterizing each participant role, I analysed the types of sources invoked by both groups. Table 40 presents these results.

Table 40. Distribution of source types in analysts vs managers turns

Source type	**Analysts**		**Managers**	
Corporate communication	29	18%	37	18%
Hearer	116	72%	11	5%
Third party	12	7%	15	7%
Speaker	2	1%	74	35%
Speaker + Other	2	1%	70	33%
Undefined	1	1%	2	1%
Total	*162*	*100%*	*209*	*100%*

The distribution of source types differs markedly between analysts and managers, reflecting their divergent communicative objectives in ECCs. Analysts predominantly quote the *Hearer* (116, 72%) – the managers to whom they direct their questions. *Corporate communications* constitute analysts' second most frequent source (29, 18%), enabling them to ground their questions in companies' disclosure – thus it works as an extension of the previous source type. This predominance of company quoting indicates that analysts represent their knowledge as primarily deriving from the management's own disclosures. Moreover, by invoking managers' prior statements or publicly available documents, analysts can highlight the relevance of a topic and even hold them accountable for consistency and point to potential discrepancies (see also the discussion in §7.5.1).

(138) And second, maybe you can comment on the Albertsons partnership that ***you've announced*** last quarter? (DASH_Q3_21)

(139) And then on capital ratio, *you said it*, record-high level at the group level [is] 14.4%. Can you tell us how the parent bank looks like? (CS_Q3_2021)

(140) And the second question, I wanted to clarify what ***you said*** about dividend. ***The press release says*** 25% of net income in 2022. (CS_Q3_2021)

In (138), the analyst enquires about the *Albertsons partnership*, previously announced by the company, framing the topic as part of the managers' territory of information, thus positioning himself as a relatively less knowledgeable outsider. Also, he frames the topic as relevant – as something announced by the company itself, so of potential interest for them as well as for investors.

Similarly, in (139) the analyst attributes a piece of information – the capital ratio reaching a record-high level – to the management, with the ensuing question seeking further elaboration. The analyst's epistemic status as K- relative to the managers is inherent in their professional role and is enacted as K- stance both by asking questions and by using hearsay evidentials that boost the interlocutor's epistemic authority.

In (140) we find two evidential frames that characterize the same proposition (that the dividend that has to be paid amounts to the 25% of the net income in 2022); in the first, the source is the hearer – or a generic *you* that comprehends the managers-interlocutors – while in the second he clearly indicates an exact source, the press release. This example works similarly to the previous ones: characterizes the piece of information as part of the management's territory of knowledge, representing them as knowledgeable on the matter and, as such, shows that the question is relevant. On the other hand, by precisely referring to a public disclosure – in this case also being a written document – the information in the proposition is framed as something non-negotiable and non-deniable by managers.

Third-party sources appear rarely (12, 7%), as do self-references (*Speaker*, 2, 1%). Two instances of *Speaker + Other* merit particular attention, illustrated in examples (141) and (142):

Table 41. Instances of harsay evidentials with *Speaker + Other* source

(141) And then, the second part is, ***we talked about* this a number of times in the past, this idea of good costs, bad costs, good capex, bad capex.**

(142) ***We've talked about* kind of your review of prime brokerage.**

Notably, in both cases the analyst constructs a shared discursive history that strategically implicates management. The construction *we have talked about* creates collective, shared knowledge of the topic that, anchoring it in previous discussion, makes it difficult for managers to deny or retract and highlighting its relevance for the dialogue.

Managers' source distribution patterns reflect fundamentally different communicative imperatives. They most frequently cite themselves (*Speaker*, 74, 35%) or the management collective (*Speaker* + *Other*, 70, 33%), together accounting for 68% of all sources. *Corporate communications* constitute the third most common source (37, 18%), which effectively extends self-quotation through the corporate voice. In general, managers predominantly refer back to their own prior disclosures – either quoting themselves or citing the management team as a collective source or referring to their company's disclosures – which can be interpreted as a strategy to create a sense of coherence and consistency of the management's disclosure strategy and overarching narrative. Also, by self-quoting, managers represent themselves and the whole management as authorities. These dimensions are illustrated in examples (143)-(146):

(143) Prabir Adarkar (DASH CFO): And maybe on the question on batching, *as I said*, look, the companies are operating independently today. (DASH_Q3_21)

(144) Thomas Gottstein (CS CEO): So *as we said*, two-thirds of the balances have been reduced. (CS_Q4_21)

Corporate disclosures include cases where a manager quotes another manager, as in (145), or official documents, as in (146):

(145) David Mathers (CS CFO): But *as Thomas said*, clearly, this is likely to be a broader industry issue as well […]. (CS_Q1_21)

(146) And I would just draw your attention to the fact *we have disclosed* the RPL *in our earnings statement*, that is 0 to 1.6 billion. (CS_Q4_21)

Managers rarely invoke the *Hearer* (11, 5%) or *Third parties* (15, 7%), suggesting their discourse is more internally focused, centred on affirming their agency and competence rather than building accountability through external attribution. For both managers and analysts, the frequency of *Undefined* sources is marginal (for both amounting to the 1%).[121]

Third party subtypes

To have a clearer picture of the uses of these evidentials by participants in ECCs, I looked more in detail at what type of sources the category of *Third party* includes; the

[121] These instances were already discussed more in detail in §7.2.4.3.

results, in Table 42, reveal further distinctions in how analysts and managers deploy external voices to serve their respective goals.

Table 42. Distribution of *third-party subtypes* in analysts vs managers turns

Third party subtype	Analysts	Managers
Clients	0	4
Data (internal)	0	1
Government / Institution	2	4
Media	2	0
Other company	5	0
People	0	4
People – rumours	3	0
Public figure	0	2
Total	12	*15*

Analysts' third-party invocations demonstrate their informational and critical functions. They reference *Other companies* (5, 42%) most frequently – likely competitors or industry peers – either to point out what's happening in the market or hinting (usually implicitly) at comparisons, to leverage on their peers' situations and disclosures to ask their questions. *People-rumours* (3, 25 %) represent the second most referred type of source, which is particularly interesting and reveals that analysts are willing to introduce possibly controversial information drawn from vague source into the dialogue. In all 3 cases, the manager does not actually reply – in 1 case, he clearly asserts that *they don't comment on rumours*:

(147) Biraj Borkhataria (analyst; RBC Capital Markets) Hi, thanks for taking my questions. Two, please. The first one is on divestments. *There were some reports recently* about you potentially looking to divest to the Permian. And I was wondering whether you can make any comments on that given it was highlighted as one of your nine core upstream regions. [...]

(148) Ben Van Beurden (corporate; Chief Executive Officer) Yeah, thanks, Biraj. Great questions. Let me take them both. On the first one, I can be actually quite short. I've seen the rumors as well. We don't comment on rumors. And I didn't think today was a particularly good day to start changing that practice. So I'm afraid you will have to live with that.

In the other two cases, there is no explicit refusal to answer, but both times managers downplay the rumours, drifting in their replies.

(149) Andrew Lim (analyst; Societe Generale): I guess one element that arguably is missing from the capital waterfall you've outlined is potential losses from Greensill. I know, ultimately, we don't know what these could be. But at the same time, *there's rumors doing the rounds about* whether you will or will not compensate investors for losses. So, I just wanted to see if you could set the record straight as to your strategy here and whether you will compensate investors or whether, as institutional investors, they should wear all of these losses? [...]

(150) Thomas Gottstein (corporate; Chief Executive Officer) So, again on Greensill, we are focused on getting the cash back to our investors. That's our only focus right now and we know this will take months and several quarters to go through, especially with respect to the three distinct situations. We've had a very good progress so far in terms of getting the cash back for all the others and have good visibility for a meaningful part, but the three distinct situations that we have mentioned before are clearly going to take several months and quarters before we have clarity there. **And therefore, there is absolutely no possibility at this stage to make any more comments on that**.

(151) Paul Cheng (analyst; Scotiabank) Good afternoon. [...] Second question, I think, Jessica, *we have heard some rumour talking about* LNG Canada may have seen some course overrun and there's a dispute between the consortium and their EPC. Can you confirm whether that is the case and that where we are in terms of the course?

(152) Jessica Uhl (corporate; Chief Financial Officer) Paul, I believe the question was about the LNG plant being constructed in Canada, if I understood you correctly. […] Oh, it is the pipeline. So there are discussions on the pipeline ongoing. We've had some challenges on the pipeline. **There's nothing to kind of announce at this moment in time**. We're working with our contractor. So you can also direct inquiries to TransCanada as well, who is constructing the pipeline. And there's no updates at this moment in time in terms of where that stands. What I would say is that the project itself is going very well.

As we see in both (150) and (152), the speakers perform the same replying strategy that revolves around two points: 1) highlighting the on-going nature of the discussed situation ("*we are focused on getting the cash back to our investors. That's our only focus right now and we know this will take months and several quarters to go through*"*;* "*there are discussions on the pipeline ongoing*") and focusing on the positive aspects of this process ("*We've had a very good progress so far*"; "*What I would say is that the project itself is going very well*"); and 2) assert that there is nothing they can add or disclose ("*And*

therefore, there is absolutely no possibility at this stage to make any more comments on that."; "*There's nothing to kind of announce at this moment in time*").

Government/Institution (2, 17%) and *Media* (2, 17%) appear with equal frequency, suggesting analysts draw on diverse informational channels to challenge or verify management claims. However, the overall low frequency of third-party references (just 7% of all analyst sources) indicates that analysts primarily construct their epistemic positioning through direct engagement with management's own disclosures rather than by invoking external authorities.

Managers' third-party references, by contrast, serve primarily legitimating and explanatory functions. Their sources distribute more evenly across *Clients* (4, 27%), *Government/Institution* (4, 27%), and *People* (4, 27%), with *Public figures* accounting for 13% (2). Notably absent are *Other companies*, *Media*, and *Rumours* – categories that could introduce unfavourable comparisons or controversial claims. Instead, managers strategically invoke external voices that support their justificatory objectives: client feedback validates business decisions, institutional sources – also including public figures – provide authoritative grounding for market conditions or expectations, or regulatory contexts. The reference to internal *Data* (1, 7%), which could reinforce managers' evidence-based decision-making narrative, is actually minimal; this is explained by the fact that internal documents reporting data are generally annotated as *Corporate communications* and not as *Third party*, as they are usually publicly available information; this single instance was instead annotated as *data* as it was framed as a private internal document:

(153) In fact *in my surveys*, *people say* the thing they miss the most that was taken away from the pandemic, at least from outdoor activities, was travel. (ABNB_Q1_21)

Interestingly, in (53), beside referring to surveys, the source of the information are the participants to these surveys, characterized as *people*. Vaguely referring to *People* as source is a potentially hindering strategy: it could raise questions from analysts on the validity of such sources; however, it seems that it is accepted for managers to refer to the "voices of the street", namely, to report public opinions that give an idea of the business situation.

The absence of media and rumour sources from managers' repertoire is especially significant. Unlike analysts, who may introduce challenging information from any

credible source, managers avoid potentially destabilizing references that could undermine their carefully constructed narrative of competent management and optimally positive yet sustainable valuation. This selectivity reflects managers' strategic awareness that invoking certain external voices – particularly those associated with speculation, criticism, or unfavourable comparisons – could compromise their credibility or introduce topics that complicate their disclosure objectives. The asymmetry in third-party source selection thus underscores how evidential choice reflects not merely informational needs but strategic positioning within the agency relationships that structure ECCs' interactions: analysts must demonstrate critical engagement with diverse information sources to fulfil their fiduciary duty to investors, while managers must project coherent, internally validated expertise to maintain investors' trust.

7.3.4.3. Epistemic divide and rhetorical strategies: a single case analysis

This section presents an in-depth analysis of a question–answer pair from Airbnb's Q2 ECC, examining how analysts and managers employ evidentials in interactional contexts in relation to their institutional goals.

(154) Mark Mahaney (analyst; Evercore ISI): Ok, thanks. *You just talked about* [having this record day]$_p$. I think *you said* [last Saturday]$_p$ and *I think* [you're also maybe appropriately cautioning about third-quarter trends and variance and Delta.] $_p$ So just kind of put those things together. [Record day] $_p$ still *sounds like* [things are good] $_p$, but *I'm sure* [there are some warnings out there] $_p$. Can you be more specific about what you're seeing that's causing you to be just a little more cautious about Q3 and the back half of the year? Thanks.

Dave Stephenson (ABNB CFO) Yeah. A lot of the trends *we're seeing* in Q2 are consistent with some of the trends *we saw* in Q1 and Q4. You know, people continue to be flexible. That's why we built all these flexible tools, because 40% of searchers are showing flexibility in either the data location and people are traveling to more destinations and people are staying longer. And one of the elements is that *we're seeing* [the trends of long-term stays], which we highlighted as a key strength in Q1, [stays at 28 days or longer, remain being one of the largest and strongest growing parts of our business]. So that was 19% of our nights booked in Q2, following being 24% in Q1, just as the mix of short-term stays kind of rebounded strongly in Q2. You know, *we've seen* [a strong increase in month-over-month performance across Q2.] So April to May to June nights booked, all were strong leading in anticipation of the summer peak travel. Now [in July], *we've seen* [some of the pullback in demand], but it is likely due to summer peak and possibly partial to the Delta variant. But all of those lead to still being the Q3 revenue, the

> nights that people stay and the revenue that we recognize will be the strongest ever. And concurrently, our profit in Q3 will be the strongest ever.

The analyst's turn comprises two questions introduced by prefatory statements that, through reformulation, form a single complex questioning act (D'Agostino et al., 2024a). In the initial prefatory statement, two hearsay evidentials ("*You talked about*" and "*you said*") report prior managerial disclosures, serving multiple strategic functions. First, they frame the information as pertaining to management's epistemic territory, positioning the analyst as K− (less knowledgeable) and thereby legitimizing the request for clarification. Second, by quoting management discourse, the analyst strategically establishes this content as common ground – given information the interlocutors cannot easily retract without risking contradiction or credibility loss. This limits managers' options to dismiss or downplay the issue. Third, referencing the company's own disclosures signals the topic's relevance to management and, by extension, to investors and stakeholders, making it harder for managers to deflect the question. Moreover, demonstrating awareness of prior disclosures serves dual purposes: it shapes the expected response by discouraging mere repetition of known content, and it positions the analyst as a knowledgeable, competent professional despite being external to the company. Though lacking insider access, the analyst exhibits expertise by referencing public corporate communications, enhancing their credibility among both managers and investors.

The analyst then highlights an apparent incongruity between the "record day" (interpreted as positive) and the company's cautious tone regarding Q3 trends and the Delta variant. This contrast is embedded in a presupposition-laden indirect question: "*what are you seeing that's causing you to be just a little more cautious*". The phrase "*you are seeing*" – mirroring managers' own habitual usage – presupposes not only that concerns exist, but that management possesses direct epistemic access to them. The turn thus foregrounds a contrast between two knowledge sources: public disclosures cited by the analyst and internal observations accessible exclusively to management. This elaborate epistemic positioning serves analysts' primary objective of eliciting relevant, previously undisclosed information.

The CFO's response demonstrates several strategic moves. First, he confirms the analyst's report while emphasizing positive trends through direct evidentials: "*the trends of long-term stays... remain one of the largest and strongest growing parts of our business*" (characterized as "a key strength") and "*a strong increase in month-over-month*

*performance across Q*2". As already discussed, direct evidentials frame propositions as perceptually accessible, justified facts, establishing epistemic authority and credibility.

The manager then briefly acknowledges negative information – "*in July, we've seen some of the pullback in demand*" – but immediately mitigates this by attributing it to transient external factors ("*summer peak and possibly partial to the Delta variant*") and countering with reassuring projections: "*Q3 revenue... will be the strongest ever*" and "*our profit in Q3 will be the strongest ever*". Notably, while the analyst's question explicitly requested clarification of what is causing management's caution, the response redirects attention toward positive trends and anticipated success, reaffirming stability and resilience.

This discursive strategy – using direct evidentials to frame both positive and negative information as indisputable while quickly offsetting concerns with explanations and optimistic forecasts – aligns with managers' dual objectives: maintaining investor confidence and demonstrating competent management, particularly when addressing potentially concerning developments.

This analysis demonstrates that participants' evidential choices are strategically oriented toward their respective interactional goals within the ECC activity type. Managers employ direct evidentials to position themselves as epistemic authorities with privileged access to organizational reality, supporting their need to justify decisions and maintain credible stewardship. Analysts use hearsay evidentials quoting managers to simultaneously legitimize their questions, underscore topic relevance, signal the need for additional information, and construct their professional identity as knowledgeable intermediaries despite their external status. These complementary evidential strategies reflect the asymmetric epistemic roles and divergent institutional objectives that structure analyst-manager interactions in ECCs.

In conclusion, the integrated analyses of epistemic modality, cognizer types, and evidentiality reveal that both analysts and managers strategically construct epistemic stances that reflect their roles, goals, and relational imperatives in ECCs. Analysts position themselves as "mediated authorities", while managers construct an image of themselves as authoritative insiders.

Analysts, as discussed in Chapter 4, pursue overlapping goals: they seek accurate information, critically evaluate management's performance on behalf of investors, and

maintain a cooperative relationship with corporate representatives to preserve access to future disclosures, while also demonstrate to be well-informed experts (see §4.4.3). The predominance of *probability* and *certainty* markers illustrates analysts' need to project expertise and credibility, while the frequent use of *Speaker* cognizers – signalling intersubjectively accessible propositions – helps them manage alignment and mitigate potential face threats. Similarly, their reliance on hearsay and inferential evidentials anchors their reasoning in shared or logically derivable knowledge, rather than in insider information, reinforcing their legitimacy as informed yet external evaluators. At the same time, in asking their questions, analysts face a dual challenge: they must demonstrate to both managers and investors that they are well-informed experts capable of sound reasoning and reliable recommendations, while also tactically highlighting informational gaps to justify their questions and investigative efforts. As discussed above (), this might be connected to the scarcity of uncertainty markers: although they are by default in a -K position as questioners, they characterise their assertions as certain to anchor their questions in less disputable content. By signalling both expertise and informational dependence, analysts negotiate a delicate balance between assertiveness and deference, reinforcing their professional identity as credible intermediaries.

Managers' use of epistentials strategies in turn reveals a coherent and strategically constructed epistemic profile that directly reflects their institutional role and communicative objectives in earnings calls. The predominance of probability, combined with the substantial use of unspecified epistemic expressions, demonstrates managers' careful navigation between projecting confidence and maintaining interpretive flexibility. The significantly higher rate of direct and especially subjective evidentials compared to analysts shows that managers construct themselves as privileged insiders with direct access to company information by anchoring their knowledge claims in direct experience and personal assessment, thereby establishing an epistemic asymmetry that positions them as the primary and most authoritative sources regarding the firm. Importantly, expressions of subjective evidentiality can also assume a pragmatic function as hedges, allowing managers to reduce their assertoric commitment – particularly in forward-looking statements, which involve projections about which the company cannot be fully certain. Following McLaren-Hankin (2008), such hedges serve to acknowledge the company's "uncertain knowledge" and to limit the writer's personal commitment to the truth of a proposition, thereby mitigating potential liability or negative consequences if predictions

are not realized. This is especially evident in evaluative claims made in managers' comments that are explicitly attributed to the company, where hedging reflects both the communicative context of corporate press releases and the legal constraints within which companies operate, as illustrated by mechanisms like the Safe Harbour Statement. As already discussed in §§7.3.3.1 and 7.3.3.2, managers therefore tend to soften forward-looking assertions strategically, balancing the need to project confidence with the imperative to manage risk.

More broadly, managers' epistemic and evidential strategies reflect a constant tension between competing communicative imperatives: the need to appear knowledgeable and confident versus the necessity of hedging against future accountability; the imperative to project individual competence versus the value of distributing organizational responsibility. The coherence across epistemic modality, cognizer configuration, and evidentiality type suggests that managers navigate these tensions through the choice of linguistic resources to construct a balanced epistemic stance. In this way, managers' epistential practices constitute a form of discursive risk management – one that seeks to maximize credibility and maintain investor confidence while minimizing exposure to the legal, reputational, and financial risks inherent in corporate communication. Ultimately, the patterns observed in managers' discourse reveal how epistemic and evidential strategies are deployed not merely to convey information, but to construct and negotiate institutional identities and manage stakeholder relationships in pursuing their goals.

To sum up, analysts and managers adopt contrasting yet complementary epistemic strategies in ECCs: analysts project expertise from a mediated, external standpoint, balancing authority with deference, while managers assert direct knowledge and organizational authority, hedging strategically to manage accountability and credibility. Together, these approaches reflect how each group negotiates information, influence, and institutional identity within the constraints of earnings calls.

7.4. Conclusions

This chapter has investigated the use of evidentials in ECCs through a mixed-method approach combining quantitative corpus analysis with qualitative examination of individual instances to address the first research question of this work: *How are evidentials employed in earnings conference calls by managers and analysts?* Three sub-questions have organized the inquiry: (1.1) *How are evidentials distributed across managers and*

analysts? (1.2) *Is there a correlation between the type of evidentials and the speaker's role?* and (1.3) *How does the use of evidentials relate to speakers' interactional goals and incentives?* (see Ch. 1, §1.2). The analysis has proceeded along three main dimensions, corresponding to §§7.1-7.3: a general distributional overview of evidential and epistemic patterns in the corpus as a whole; a detailed inventory of the epistential expressions employed; and a comparative examination of how the two participant groups deploy evidentials in pursuit of their respective institutional goals.

The distributional analysis presented in §7.1 provides an initial, corpus-level answer to the first research question and lays the groundwork for the role-specific sub-questions. With respect to evidentiality types, subjective evidentials are by far the most frequent (36%), followed by inferential (28%), and direct and hearsay in nearly equal proportions (approximately 16% each). Common knowledge markers are extremely rare (<1%), a finding explained by the shared expert status of participants: information mutually presupposed within a community of financial professionals might not need to be explicitly flagged as common ground, and doing so might even be interpreted as deceitful. The predominance of subjective evidentials reflects a strong tendency – especially among managers, as confirmed in §7.3 – to anchor knowledge claims in personal assessment and attitude, a strategy that simultaneously projects epistemic authority and enables hedging. The comparable corpus-level frequencies of direct and hearsay evidentials, rather than indicating a symmetric individual strategy, turn out to reflect a division of labour between participant roles, as the analyses of §7.3 will make clear.

The analysis of epistemic modality has shown a clear preference for probability (48%) and certainty (36%), with weaker modalities such as possibility (5%) and doubt (1%) being markedly rare. This distribution reflects the prospective orientation characteristic of ECCs: participants routinely engage in forecasting, interpreting signals, and projecting future developments, for which probabilistic framing offers an optimal balance between projecting competence and acknowledging uncertainty. The small proportion of operators with unspecified evidentiality (5%) is also analytically significant: these items – often attributed to the interlocutor or to indeterminate third parties – serve a pragmatic function of diffusing epistemic commitment without specifying a knowledge source.

The analysis of cognizer types has added a further dimension to this picture. *Speaker-only* frames dominate (38%), followed by the intersubjective *Speaker* category (30%), which presents propositions as accessible beyond the speaker alone. The category *Speaker*

+ *Other* (19%) is predominantly used by managers to attribute knowledge to the management team or the company as a whole, a strategy that distributes epistemic responsibility while constructing an image of organizational cohesion. Attributions to the *Hearer* (12%), by contrast, are more characteristic of analysts, who frequently ground their questions in information attributed to management.

Company-level variation was also found to be statistically significant, indicating that individual corporate communicative styles influence epistential density, while the overall evidential profile remains broadly consistent across the four companies.

Section §7.2 moved beyond distributional patterns to build a descriptive inventory of the epistential expressions used in the corpus, contributing a more fine-grained empirical basis for answering the main research question. The 2,369 annotated tokens were realized through 145 distinct lemmas, whose distribution follows a strongly Zipfian pattern: the two most frequent lemmas alone – TO THINK (32%) and TO SEE (16%) – account for nearly half of all instances. This concentration into a small set of high-frequency items, alongside a long tail of 59 hapax-lemmas, suggests a core-periphery structure in which a limited set of highly conventionalized operators dominates usage while a broader, more context-sensitive repertoire of lower-frequency expressions serves specialized pragmatic functions.

The analysis of the relationship between lexical forms and evidential categories has shown that the majority of lemmas (126 out of 145) are monocategorical – that is, they are consistently associated with a single evidential type – while 19 lemmas exhibit polycategoriality. The poly-categorical behaviour of lemmas such as TO BE CLEAR and TO TELL has been shown to be systematically conditioned by syntactic and semantic factors: the same lemma assumes different evidential values depending on the animacy of its subject, the presence of negation, and the type of proposition in its scope. These findings confirm that evidential meaning is encoded at the level of construction rather than the lexeme alone, and that a bottom-up, corpus-based approach is indispensable for capturing the full range of evidential functions realized in this genre.

The inventory has also revealed expressions that are specific to the ECC genre and would not have been retrievable through a standard dictionary-based or semasiological approach. Domain-specific constructions such as GUIDANCE (TO BE IN), IN THE SHAREHOLDER LETTER, IN THE OPENING REMARKS, TO BE THERE RUMORS, and TO BE THERE REPORTS Belong to a specialized evidential repertoire that indexes genre-specific forms of

intertextuality and source attribution. These findings point to the importance of developing genre-sensitive resources for the study of evidentiality in discourse.

Section §7.3 addressed sub-questions 1.1, 1.2, and 1.3 directly. Turning first to sub-question 1.1 – *how evidentials are distributed across managers and analysts* – the data reveal that the two groups differ substantially in which evidential categories they favour. Specifically, managers display markedly higher rates of direct and especially subjective evidentiality, while analysts favour hearsay and, to a lesser degree, inferential evidentiality. These results were confirmed by a Chi-square test of independence, which showed how the differences in evidential type distribution between managers and analysts are highly significant.

Interestingly, such association is not merely a matter of degree: each role exhibits a qualitatively distinct evidential profile, and confirms the hypothesis advanced in sub-question 1.2 – *whether there is a correlation between evidential type and speaker role.*

The answer to sub-question 1.3 – *how the use of evidentials relates to speakers' interactional goals and incentives* – follows from an integration of the distributional findings with the qualitative analysis of discourse strategies developed throughout §7.3. Managers emerge as epistemic authorities who construct themselves as privileged insiders with direct access to organizational knowledge. Their higher rates of direct and subjective evidentiality reflect a strategy of anchoring knowledge claims in personal experience and personal assessment, thereby establishing an epistemic asymmetry that positions them as the primary and most authoritative source of information about the firm. At the same time, subjective evidentials also function as hedges in managers' forward-looking statements, enabling them to reduce assertoric commitment and limit accountability a communicative necessity given the constraints governing corporate projections. The frequent use of *Speaker + Other* cognizer frames further enables managers to project organizational cohesion and distribute epistemic responsibility across the management team. Managers' epistential practices thus constitute a form of discursive risk management: they maximize credibility while minimizing exposure to legal, reputational, and financial risk. Analysts, by contrast, construct themselves as what this chapter has termed "mediated authorities": knowledgeable intermediaries who ground their questions and comments in information derived from external sources or logical inference rather than insider access. Their preference for hearsay and inferential evidentiality reflects their institutionally constrained epistemic position: lacking direct access to internal company data, they must rely on firms'

disclosures or their own inferences. As I discussed in §7.3.4 and as will be further explored in Ch. 8 and Ch. 9, analysts leverage on this kind of information to legitimize their questions, by showing their relevance through the anchoring in managerial communications. This strategic use of hearsay frames to quote management's prior discourse simultaneously validates the analyst's question, signals the need for further clarification, and projects professional preparedness. By doing so, analysts negotiate a delicate balance between assertiveness and deference, reinforcing their identity as credible intermediaries who are both well-informed and appropriately dependent on management for insider knowledge. These complementary strategies directly reflect the interactional goals and incentives described in Chapter 4 (§4.4.3): managers aim to maintain investor confidence and institutional credibility while managing liability, whereas analysts seek to demonstrate expertise to investors, obtain relevant information, and maintain a positive and collaborative relationship with managers.

Taken together, the findings of this chapter demonstrate that evidential choices in ECCs are not random, but rather they are strategically oriented toward the interactional goals and institutional roles of participants. The complementary evidential profiles of managers and analysts mirror the asymmetric epistemic structure of the ECC activity type (see Ch. 4, §4.1 §4.4.4), in which managers are positioned as authoritative insiders and analysts as expert outsiders. Evidentiality, in this context, functions as a resource for constructing and negotiating professional identity, managing epistemic authority, and pursuing institutional objectives. These results contribute to the growing body of research on evidentiality in professional and institutional discourse and provide a detailed empirical account of how epistemic and evidential strategies are mobilized in one of the most consequential genres of financial communication.

8. Argumentative functions of evidentials

The previous chapter provided an overview on the use of epistentials, and more specifically evidential frames, in ECCs. In this chapter, I turn to the argumentative functions these markers can assume both at a macro-level as indicators of moves and at a more micro-level as arguments instantiating inferential connections. As discussed in Ch. 3, evidentials are considered as having an argumentative role in discourse as they provide justifications for asserted propositions (§3.5), whereas few works in the literature examined them as indicators of moves (§3.5.2).

Section §8.1 focuses on the macro level. I present quantitative results that show the distribution of evidentials and of evidentiality types across argumentative moves, pointing out significant correlations that suggest the role of evidentials as argumentative indicators in the corpus. Such quantitative analysis demonstrates that evidentials can work as resources to guide the identification of argumentative moves and therefore to support argumentative reconstruction (see §8.3). In this sense, they also constitute a valuable means in support of argument mining techniques aimed at the theoretically principled and analytically explicit study of argumentative patterns at a large scale (see Musi and Aakhus, 2019).

In §8.2, I turn to the micro-argumentative level, observing how evidentials can *per se* work as arguments, supporting the acceptability of a proposition, and studying the differences among various evidentiality types. This will entail a qualitative analysis of several examples for each type of evidential – both when they occur in premises and in conclusions – based on the AMT model, and a deeper reflection on the relation between knowledge source and justification. The selected examples are representative instances, and the reconstruction and analysis of their argumentative configuration makes it possible to qualitatively capture the argumentative work associated with different types of evidentials.

8.1. Distribution of evidentials in argumentative moves

As anticipated in Chapter 6 (§6.3), the purpose of this study is to assess the likelihood that, when an evidential occurs in a sentence (within an ECC), that sentence constitutes an argumentative move – not the likelihood that an argumentative move contains an evidential. For this reason, I annotated argumentative moves across the entire corpus only in epistential spans, following the procedure described in §§6.3.1.1 and 6.3.1.2.

As shown in Table 43, out of 2369 annotated epistentials, 1667 (70%) – occur in argumentative moves. Epistentials are therefore more frequently part of argumentative moves than of non-argumentative ones.

Table 43. Epistential frames in argumentative moves

Epistential frames in argumentative moves		**Epistential frames not in argumentative moves**		**Total epistential frames**
1667	70%	702	30%	2369

We can now examine the distribution of evidentials by type across argumentative and non-argumentative moves, as presented in Table 44.

Table 44. Distribution of evidential types across argumentative and non-argumentative moves

	Argumentative		**Non-argumentative**		**Total (= 100%)**
Common knowledge	5	100%	0	0%	5
Direct	304	81%	72	19%	376
Hearsay	294	79%	77	21%	371
Inferential	500	76%	160	24%	660
Subjective	506	60%	344	40%	850
Unspecified	58	54%	49	46%	107
Total	*1667*	*70%*	*702*	*30%*	*2369*

Direct and hearsay evidentials are heavily concentrated in argumentative moves, with 81% and 79% respectively, suggesting that first-hand information, perceptual sources and reported information are key for constructing arguments. Inferential evidentials also appear more frequently in argumentative moves (76%), and subjective evidentials are the less frequent to appear in argumentative moves (60%). Common knowledge seems to appear always in argumentative moves; however, as they are extremely rare in the corpus (5) they do not provide a reliable basis for interpreting their role in argumentative strategies.

To verify whether the association between evidential type and the argumentative nature of moves is statistically significant, a Chi-squared test of independence has been performed (results in Table 45).

Table 45. Chi-squared test results: Dependency between evidentiality type and argumentative nature of moves (argumentative vs non-argumentative)

	Argumentative			**Non-argumentative**		
	Observed	**Expected**	**χ^2 statistics**	**Observed**	**Expected**	**χ^2 statistics**
Common knowledge	5	3.52	0.62	0	1.48	1.48
Direct	304	264.49	5.91	72	111.51	14.01
Hearsay	294	260.95	4.18	77	110.05	9.93
Inferential	500	464.22	2.76	160	195.78	6.54
Subjective	506	597.89	14.13	344	252.11	33.51
Unspecified	58	75.23	3.95	49	31.77	9.36

Given the overall significance of the test (χ^2=89, p<0.001), we can reject the null hypothesis and confirm that evidential type and argumentative function are not independent. Also, the Chi-squared contributions indicate that direct, hearsay, and subjective evidentials contribute most to the overall χ^2 statistic, suggesting that these types exhibit the strongest deviations from expected frequencies under the assumption of independence. In particular, the results confirm that direct and hearsay evidentials occur more frequently in argumentative moves than expected, whereas subjective evidentials are statistically associated to non-argumentative moves.

These findings underscore a systematic connection between evidential type and argumentative function: when using evidential information in arguments, speakers tend to employ source-specific markers, while less source-specific or subjective markers appear more diffusely across the discourse. These results also suggest that more specific evidential markers are more promising candidates to work as argumentative indicators.

The present analysis can be compared to the analysis conducted by Lucchini et al. (2024), which observed the correlation between evidentials and argumentative moves in a sub-corpus of the one considered here. The present results partly confirm the results from Lucchini et al. (2024): in both studies, evidential expressions tend to appear more frequently in argumentative moves than in non-argumentative ones, supporting the

hypothesis that evidentials can serve as reliable indicators of argumentative function. Moreover, also in the pilot study hearsay and inferentials emerged as associated with argumentative moves and subjective with non-argumentative moves.

An important divergence between the present findings and those of Lucchini et al. (2024) concerns the distribution of direct evidentials. In the earlier study, direct evidentials appeared to cluster predominantly with non-argumentative moves – a result that the current analysis disconfirms. The most immediate explanation is methodological: Lucchini et al. (2024) was based on the annotation of a single ECC, whereas the present study draws on a substantially larger corpus of 16 calls. A single discourse event, however carefully analysed, may not be representative of broader distributional patterns, and is particularly susceptible to idiosyncratic variation at the level of the individual speaker(s), the specific interactional dynamics of the call, or the particular communicative situation at hand. It is well established in corpus linguistics that small samples are more vulnerable to skewed distributions (Biber, 1993), where a single highly frequent or infrequent occurrence can exert a disproportionate influence on the overall results. In this light, the finding reported in Lucchini et al. (2024) may reflect a local, call-specific pattern rather than a stable feature of how direct evidentials function in argumentative discourse more broadly. I shall suggest that the discrepancy between the two studies should be interpreted not as a contradiction, but as a reflection of the inherent limitations of small-scale, single-discourse analyses, and as a further confirmation of the importance of larger annotation sets for the robust investigation of evidential behaviour in interactional argumentation.

Having observed the overall argumentative function of evidential types, we can now look more in detail at their distribution across argumentative moves, displayed in Table 46. The results are verified through a Chi-squared test, displayed in Table 47.

Table 46. Distribution of evidential types across the different argumentative moves

	Premises		**Premises-conclusions**		**Conclusions**		**Total**
	N	**%**	**N**	**%**	**N**	**%**	
Common knowledge	5	100%	0	0%	0	0%	5
Direct	223	73%	25	8%	56	18%	304
Hearsay	269	91%	3	1%	22	7%	294

Inferential	318	64%	64	13%	118	24%	500
Subjective	305	60%	49	10%	152	30%	506
Unspecified	46	79%	7	12%	5	9%	58
Total	*1166*	*70%*	*148*	*9%*	*353*	*21%*	*1667*

Table 47. Chi-squared test results: Dependency between evidential types and argumentative move types

Evidentiality type	**Premises**			**Premise-conclusion**			**Conclusion**		
	Obs.	**Exp.**	**χ^2 stat.**	**Obs.**	**Exp.**	**χ^2 stat.**	**Obs.**	**Exp.**	**χ^2 stat.**
Common knowledge	5	3.5	0.64	0	0.44	0.44	0	1.06	1.06
Direct	223	212.66	0.5	25	27	0.15	56	64.34	1.08
Hearsay	269	205.65	19.51	3	26.09	20.42	22	62.17	25.96
Inferential	318	349.67	2.87	64	44.39	8.66	118	105.79	1.41
Subjective	305	353.91	6.76	49	44.93	0.37	152	107.08	18.84
Unspecified	46	40.55	0.73	7	5.15	0.67	5	12.26	4.3

The Chi-squared contributions indicate that hearsay and subjective evidentials most strongly deviate from expected frequencies. These results confirm a significant association between evidential type and the type of argumentative move. Given the overall χ^2 statistic ($\chi^2(10) = 93.11$, $p < 0.001$), we can reject the null hypothesis of independence, indicating that evidentiality type and argumentative move types are significantly associated. It emerges that common knowledge, direct and hearsay evidentials are associated with premises, while inferentials and subjectives with conclusions – including intermediate conclusions. These results differ from Lucchini et al. (2024), updating the interpretation of these evidential markers in ECCs; specifically, while for hearsay and subjective the results were the same, in the pilot study direct evidentials were associated to conclusions and inferential to premises. As discussed above, the divergence in results may be attributable to differences in corpus size. The occurrence and distribution of evidential markers in ECCs is subject to a range of contingent factors; as such, the patterns observed within a single ECC should not be generalised beyond that specific communicative event.

In this respect, the present study is best understood as an update and refinement of the findings from the pilot study.

8.2. Evidentials as argumentative strategies

As discussed in Ch. 3 and recalled above, evidentials beside working as argumentative indicators of moves can be analysed as argumentative at the micro-level. In this section, I analyse what kind of argumentative strategy – especially in terms of activated argument schemes – the different types of evidentials realize. As discussed in §3.5.1.1, Miecznikowski (2020) claims that all evidential frames work as arguments based on the *locus from reliable procedure of knowledge acquisition* (henceforth, ReP arguments). The general inferential configuration instantiated by this argument scheme can be reconstructed as shown in Fig. 46 (§3.5.1.1), reproduced below.

This argument scheme is a generalization of the more specific type of inference instantiated by evidentials (see §3.5.1.1). In the next paragraphs, I will analyse representative examples of the different types of evidentiality, reconstructing their inferential configurations to better capture what are the specific types of argument schemes instantiated.

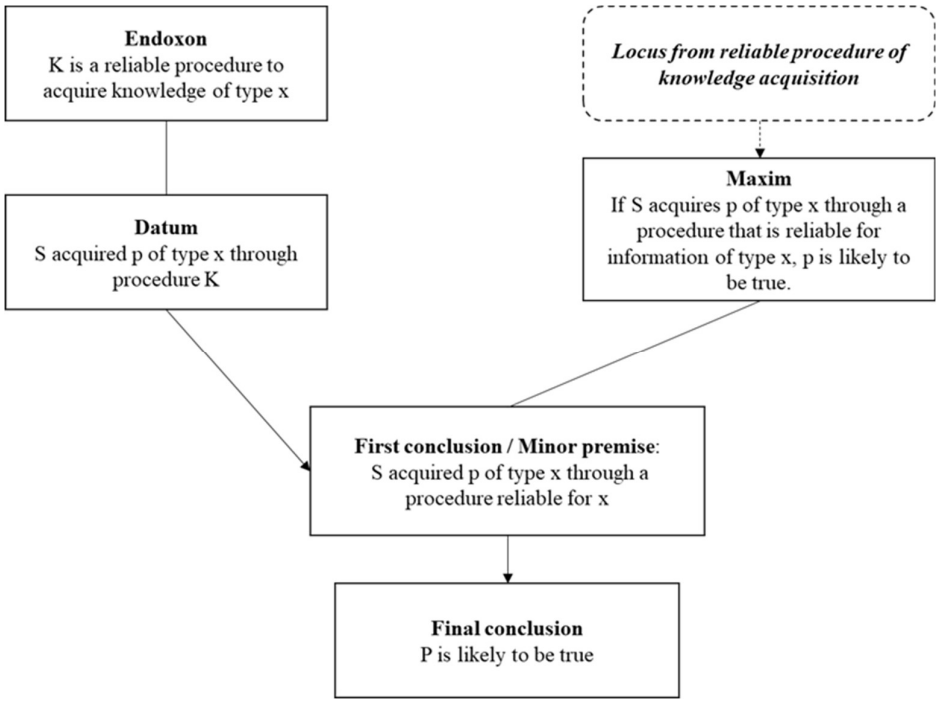


Figure 45. Y-structure of the *locus from reliable procedure of knowledge acquisition*

8.2.1. Direct evidentiality

As shown by the data in Tables 46 and 47, direct evidentials are mostly associated to premises, which means that they are most often found in sentences that work as arguments supporting a conclusion and that are not supported by any other argument.

The Airbnb's CFO answer in (155) is an exemplary instance of this, as we find the direct evidential frame (*we're seeing strong listing count*) in a bottom-level premise.

(155) Dave Stephenson (corporate; Chief Financial Officer) ***We're seeing*** strong listing count, 5.6 million. It is been very stable. I think, actually, one of the things that's been very impressive during this time is that our host churn in Q1 '21 is actually lower than our host churn in the same period in 2019. And actually, our churn in 2020 was even lower than what it was in 2019. So I just think it all just shows kind of that resiliency and the stability of our supply. (ABNB_Q1_21)

If we reconstruct the argumentative structure of this passage in Pragma-Dialectical style, we obtain the following:

1. Airbnb's supply is resilient and stable
    1.1a Airbnb is seeing strong listing count of 5.6 million
    1.1b Airbnb strong listing count has been very stable (and has even improved over time)
        1.1b.1a Airbnb's host churn in Q1 '21 is actually lower than the host churn in the same period in 2019
        1.1b.1b Airbnb's host churn in 2020 was even lower than what it was in 2019

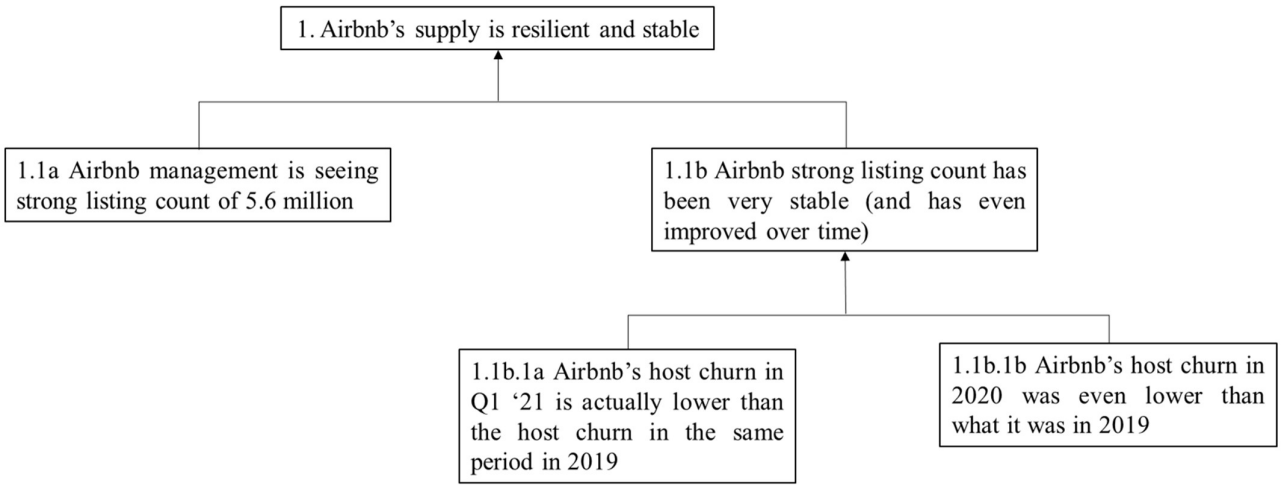


Figure 46. Argumentative structure of example (155)

Standpoint (1) is an evaluation of Airbnb's supply as resilient and stable – realized in the text by the sentence *So I just think it all just shows kind of that resiliency and the stability of our supply* – is supported by a coordinative argumentation, where the observation of the strong listing count (1.1a) is combined with the fact that they have been stable (1.1b), which is in turn supported by another coordinative argumentation based on the comparison with data from previous years (1.1b.1a and 1.1.b.1b). We can also notice that in the sentence-standpoint the inferential connection is also signalled by the inferential frame *it all just shows*, which indicates that what the speaker said before – the listing counts and the comparisons with the previous years – is a premise that *shows* what's in the standpoint – the resiliency and stability of the supply. Using an inferential to explicitly indicate the premise-conclusion connection reinforces its argumentative strength

According to this reconstruction, argument 1.1a, where the direct evidential frame occurs, is not supported by any further premise. However, by treating evidentials as argumentative *per se*, it becomes possible to reconstruct them as premises supporting the acceptability of the proposition over which they take scope. Argument 1.1a can therefore be reconstructed as being supported by a subordinate argument 1.1a.1.

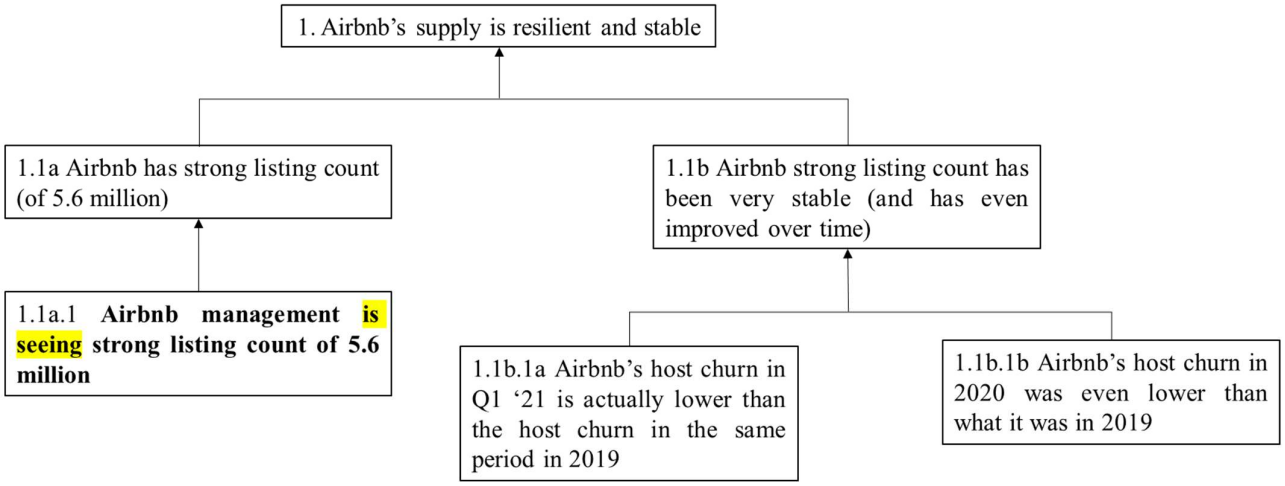


Figure 47. Argumentative structure of example (155) explicating the role of the evidential argument as subordinated argument

At a micro-argumentative level, this frame serves as an arguments supporting the truth of the proposition *Airbnb has strong listing count*, which can be deemed acceptable as it was directly observed by the company. In this sense, a direct evidential frame – even when in a bottom-level premise – actually works as an embedded argument, based on the fact that the speaker (or someone else deemed credible) has observed the fact in the proposition. Thus, direct evidential frames function as micro-argument appealing to the *locus from testimony* (see also Miecznikowski, 2020:55), which is a subtype of the argument from authority: "[t]he locus from testimony is based on the authority of a witness, who clearly does not need to be an expert in a given domain; his or her authority derives from the "position to know", i.e. from the fact that he or she has seen or heard specific facts" (Rigotti and Greco, 2019:264). Using the AMT model, we can reconstruct the inferential configuration of the inferential connection between 1.1a.1 and 1.1a, which results in the Y-structure in Fig. 49.

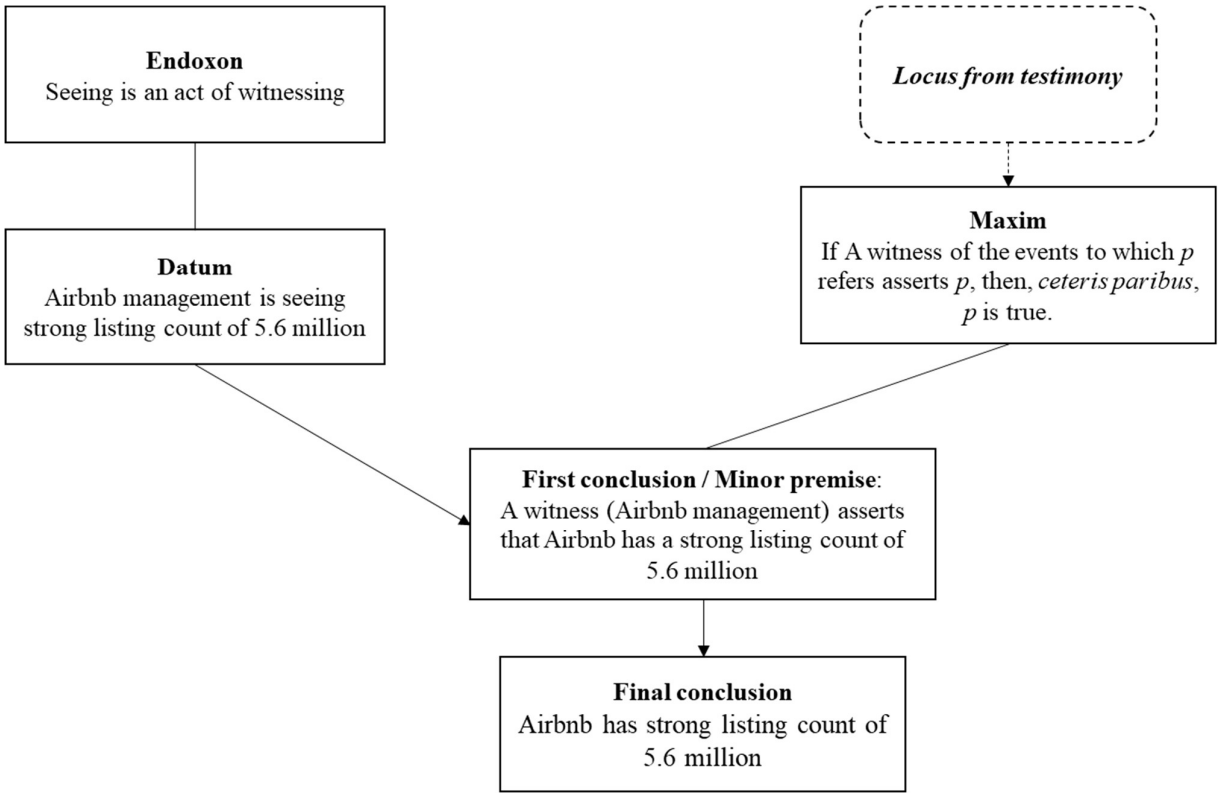


Figure 48. Y-structure of the inferential connection between 1.1a.1 and 1.1a (example 155) – evidential micro-argument

Interestingly, while the evidential frame clearly appeals to a *locus from testimony* – since the focus is on direct observation – the argument is implicitly strengthened also by the fact that the observer – Airbnb management – has privileged access to the relevant data and can therefore be regarded as a credible witness, appealing to the status of *authority* of the source. In a way, we are in presence of an argument from testimony where the witness is not just any witness but is an epistemic authority in a particular position to know – deriving from their direct involvement in the discussed situation.

The argument from testimony can be fully regarded as an instance of ReP argument, and a direct evidential frame can be reconstructed as instantiating this type of argument scheme, as shown in the Y-structure in Fig. 50 below.

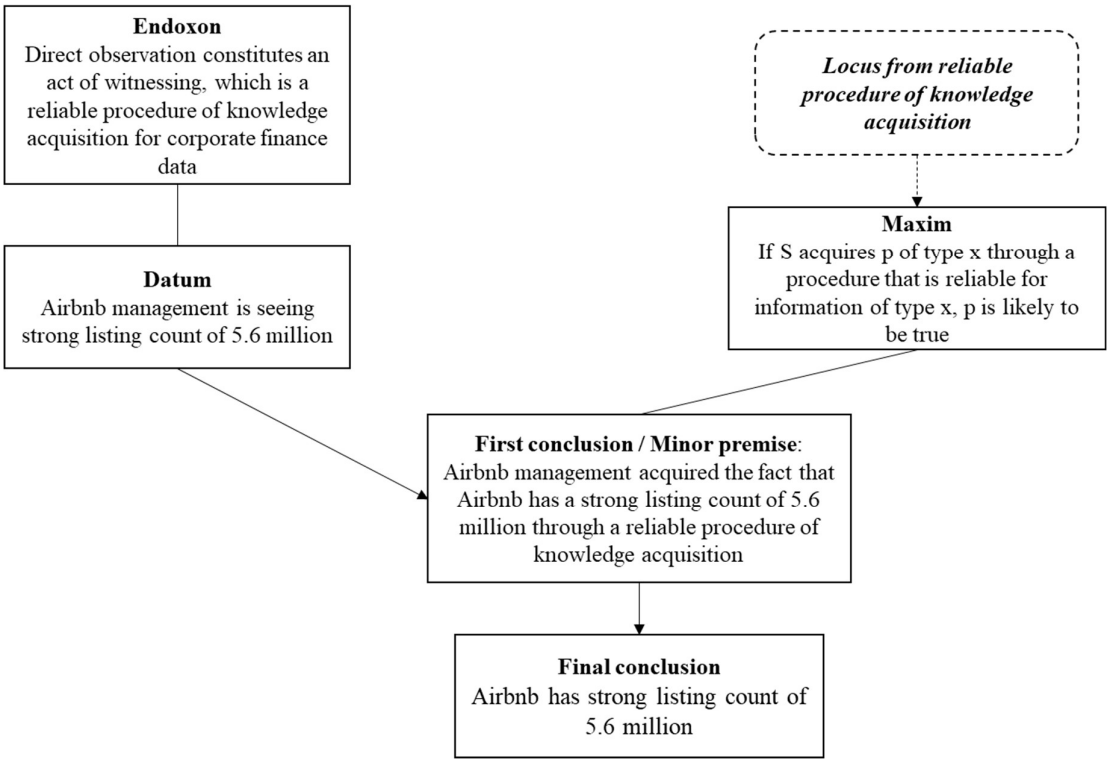


Figure 49. Y-structure of the inferential connection between 1.1a.1 and 1.1a (example 155) as a ReP argument

As Miecznikowski (2020) observes, all arguments from authority constitute subtypes of the ReP argument, which is a general configuration. Moreover, the ReP configuration is conceived in Miecznikowski's work as a semantic model that shows the similarity between the various evidential loci. In this sense, as this configuration is a generalization, reconstructing the specific argument – as, in this case, the argument from testimony – is both more informative and more analytically appropriate.

In the question in (156), we find a similar structure.

(156) Jeremy Sigee (analyst; Exane BNP Paribas) And question number two really is about IWM and the revenue trajectory there. Because, of course, ***we have seen*** very, very strong kind of net new money numbers. But, of course, when we look at the kind of underlying revenues, ***we're of course seeing*** the kind of weakness in NII, but also on the kinds of transactional and recurring fees are kind of broadly flat. But going forward, how should we kind of think about that revenue trajectory within that part of your wealth business? (CS_Q1_21)

The argumentative structure of this passage is reconstructed below.

(1. There is uncertainty around the expectations for revenues.)
(1.1 There is a contrast between the positive inflow in IWM (International Wealth Management) and the underlying revenues – weak NII (Net Interest Income) and flat fees)
1.1a [Analysts – and managers – have seen] a strong inflow ("net new money") in IWM
1.1b [Analysts – and managers – have seen] weakness in NII
1.1c Transactional and recurring fees are flat

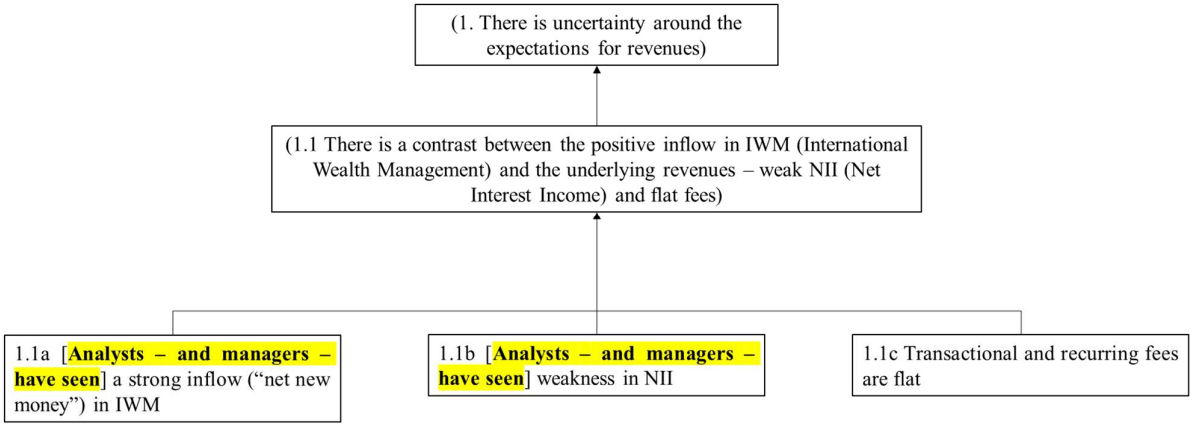


Figure 51. Argumentative structure of example (156)

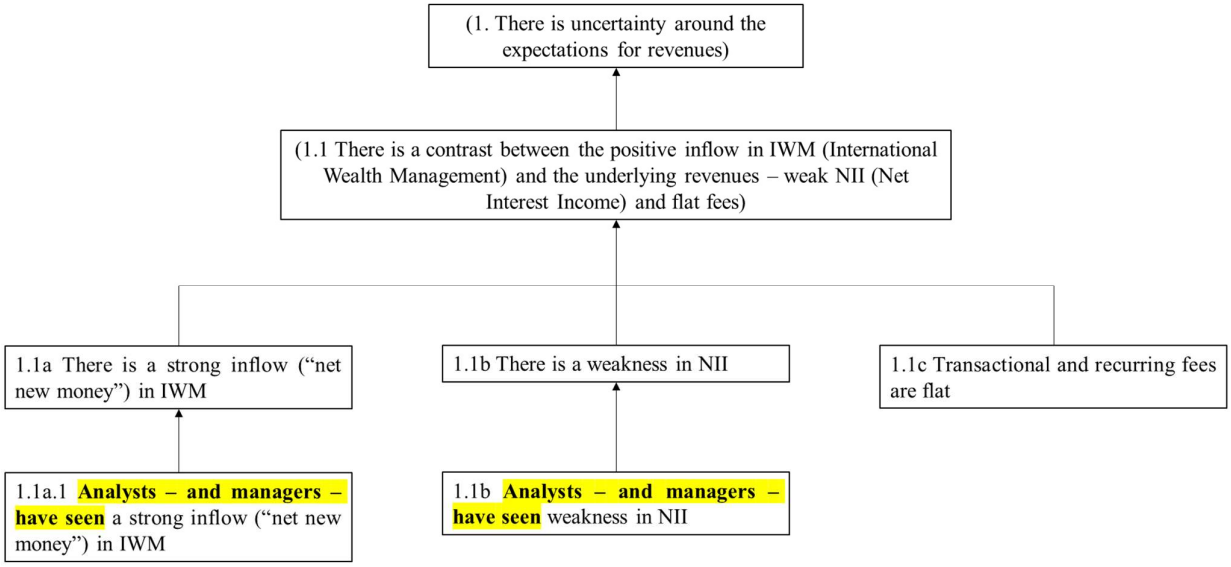


Figure 50. Argumentative structure of example (156) explicating the role of the evidential argument as subordinated argument

Also in this case, the direct frames work as subordinate arguments backing up the propositions, framing them as acceptable and unassailable starting points through an argument from testimony, and can be reconstructed as further premises.

There is a noteworthy contrast between the two examples in (155) and (156). In the former, the cognizer within the direct evidential frame, who coincides with the witness-authority, is the company itself ("*We're seeing*", *Speaker + Other*). Since the company can reasonably be regarded as a knowledgeable and thus trustworthy source concerning its own operations and data, its direct perception of the reported phenomenon constitutes an epistemically plausible claim. The fact that the company presents this information as something newly observed – hence, non-shared – backs up the credibility of the information by appealing to its institutional position as a party "in a position to know".

In contrast, in example (156), the analyst uses inclusive "*we*" to encode the cognizer, extending the reference to the witness beyond the speaker to encompass the entire investing and financial community, as well as company management – as this information necessarily falls within their territory of knowledge being something that concerns the firm. Therefore, the propositions in question (i.e., the "*very strong kind of net new money numbers in IWM*" and the "*weakness in NII*") are framed as part of the shared common ground among participants. In this way, the analyst is not justifying his argument by implying privileged access or authority to insider information but rather grounds his reasoning in publicly available evidence that is equally observable by all. Although the expression still works as an argument from testimony, the testimony is shared with the interlocutors and as such can work as a strengthening of the argumentation itself.

To sum up, when a direct evidential has scope over a proposition, the latter is represented as first-hand, perceptually obtained information – and possibly even as shared information, as in (58) – which frames it as justified and acceptable – and, therefore, essentially undisputable by the interlocutor. In this sense, while direct evidentials occur in bottom-level premises, which are not supported by other arguments, they actually work as embedded supporting premises. At a macro-argumentative level, in a coarse-grained reconstruction of the argumentative structure, the move (sentence) in which the evidential occur may appear to be an unsupported premise, but a more fine-grained analysis of the micro-argumentation reveals the evidential operator's role as a further premise based on the argument from testimony. As anticipated in §3.5.1.1, evidential frames can be analysed as *inconspicuous arguments*, i.e., arguments that "provide background information that is less salient cognitively and pragmatically than the standpoint in their scope and less salient than fully propositional arguments expressed as stand-alone utterance"(Battaglia and Miecznikowski, 2025a:208).

The question thus arises as to what argumentative role direct evidential frames play when they occur in conclusions. As shown in Table 46, although these frames most frequently appear in premises, they are also found in conclusions, including intermediate ones, in approximately 30% of the cases. Let's examine two examples illustrating this case.

(157) Brian Chesky (corporate; Co-Founder and Chief Executive Officer) Clearly, right now 80% of our nights in Q1 were domestic. So ***we've seen*** domestic travel being consistent, the strength all around the world. (ABNB_Q1_21)

In (157), the CEO of Airbnb answers to a question on domestic bookings ("*just curious to hear if you're seeing some substitution in terms of domestic bookings versus international as the vaccine rates increase. And do you think the domestic rates will remain above 2019 levels even after borders open up next year?*") – where domestic bookings are reservations with guests staying within their own country. The question hints at the possibility that international bookings could substitute domestic ones because of the increase of COVID-19 vaccines, asking whether the company expects the domestic bookings to remain stable even with the reopening of borders (and thus the comeback of international travels). Interestingly, the analyst already asks for what the managers *are seeing*. The manager – who at the beginning declares uncertainty about the matter ("*I mean just unsure exactly where everything will settle out for domestic versus international*") – essentially responds that international cross-border travels, which were one of the company's core strengths and were affected by the pandemic, can be expected to come back and to add on top of domestic bookings, which are already strong ("*our urban cross-border has been our strength. We know that many of these trips are incremental and such that when travel rebounds to a more typical state, we'll have, you know, growth in overall travel*" "*So we know that many of the trips will be coming back and will be incremental to what we're seeing today*"). In a way, the manager's response contradicts the analyst's hypothesis that there is a substitution of domestic travels in favour of international travels; moreover, manager's assertion that "*we've seen domestic travel being consistent*" reflects the wording of the question ("*if you're seeing some substitution*") creating lexical cohesion between the analyst's thesis and the manager's counter-standpoint.

In this context, the excerpt in (157) is a subordinate argumentation that justifies the manager's consideration on the consistent strength of domestic bookings.

1. [Airbnb is seeing that] domestic travel is consistently strong around the world
   1.1 80% of the booked nights in Q1 were domestic

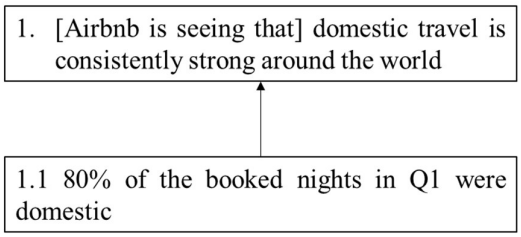


Figure 52. Argumentative structure of example (157)

The fact that domestic travel is consistently strong is justified by the premise that the 80% of the nights booked in Q1 were domestic (argument 1.1). Therefore, as the proposition is already argued for, the direct evidential frame plays a different role than in (57) and (58). It can be analysed as a sort of additional argument, or as a particular type of ancillary argument, which is not strong enough to support alone the standpoint and is added to other arguments to provide further justification for the claim. Ancillary arguments, in Herman and Oswald's (2022) perspective, are arguments that support a premise concluding that it is true; in this case, although the direct evidential frame is embedded within a standpoint, its conclusion is of the same type, and its main role is to strengthen the argument.

In example (158), we find both types of evidential arguments.

(158) Irene Himona (analyst; Societe Generale) And the other question relates to cost inflation. Obviously, ***we are seeing*** a lot of price increases in metals, commodities and so on. I wonder how your procurement side is protecting you from that potential cost inflation. Do you have, for example, long-term contracts that insulate you for a period?

Ben Van Beurden (corporate; Chief Executive Officer, RDS) So indeed, cost inflation is something that we watch very carefully. We have been very good at taking cost out. But of course, we need to be very mindful that it also can come back. I think so far, in most categories, ***we are actually seeing*** very modest cost inflation. And the areas where perhaps the inflation is the most profound is maybe in steel and logistics. But in steel, of course, from a significant drop, if you've seen before. And logistics, you can imagine, of course, is getting a little bit more challenging, but so much recovery taking place. But you're also right, is that, of course, with many of our procurement activities being on the base of long-term advantage contracts, strategic contracts with suppliers, we are actually able to lock

> in advantages quite significantly. And therefore, in the main, ***we are actually seeing*** quite a modest effect of inflation on our spend. (SHEL_Q2_21)

Shell's CEO – answering a question on cost inflation and countermeasures – does two things.

On the one hand he acknowledges the presence of cost inflation (*cost inflation is something that we watch very carefully*; *we need to be very mindful that it also can come back*), while at the same time downplaying its severity to some extent. He characterizes inflation as "*very modest*" (*in most categories, we are actually seeing very modest cost inflation*) and then frames the most affected areas – steel and logistics – as relatively contained (the former due to a rebound and the latter already in recovery) (*the areas where perhaps the inflation is the most profound is maybe in steel and logistics. But in steel, of course, from a significant drop logistics, you can imagine, of course, is getting a little bit more challenging, but so much recovery taking place*).

On the other hand, he says that Shell has countermeasures already in place to mitigate cost inflation (*We have been very good at taking cost out*; *with many of our procurement activities being on the base of long-term advantage contracts, strategic contracts with suppliers, we are actually able to lock in advantages quite significantly*). In the second part, the CEO vaguely discusses the company's procurement strategy, which relies on long-term, strategically advantageous contracts with suppliers, suggesting that it provides a degree of insulation against inflationary effects. He concludes by stating that, because of the manageability of the situation and because of these measures, inflation has had only a modest impact on Shell's overall spending, as they are *seeing*.

These two dimensions – downplaying the cost inflation as unworrying and reporting the company's countermeasures – correspond to two lines of argumentation supporting the final standpoint, as shown in the reconstruction below.

1. [Shell is seeing that] there is quite a modest effect of inflation on Shell's spend.
    1.1a (The inflation cost is non alarming and manageable)
        1.1a.1a [Shell is seeing that] there is very modest cost inflation
        1.1.a.1b The areas where perhaps the inflation is the most profound is in steel and logistics
        1.1a.1c In steel the prices rose from a significant drop before (the increase is a rebound)
        1.1a.1d In logistics there is much recovery taking place
    1.1b (The company is already taking countermeasures)
        1.1b.1 Shell has been very good at taking cost out
        1.1b.2 Shell undertook many procurement activities, long-term advantage contracts, and strategic contracts with suppliers, being able to lock in advantages quite significantly

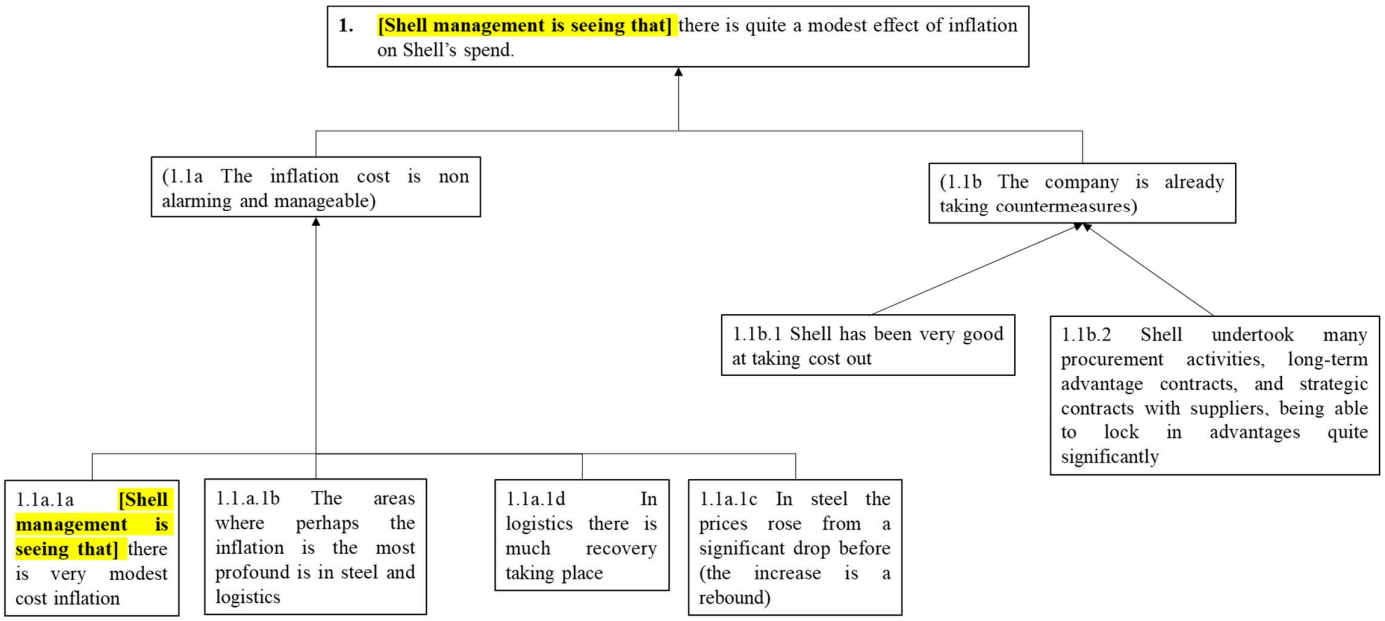


Figure 53. Argumentative structure of example (158)

Interestingly, similarly to the previous example, the manager mirrors the analyst's language by adopting the same verb *to see* while simultaneously inverting the substance of the claim: "*we are **seeing** a lot of price increases in metals*" versus "*we are **actually** seeing very modest cost inflation*". The effect is a deliberate first-person counterpoint: the manager does not simply deny the analyst's observation but opposes it with a competing direct evidential claim, positioning what *they* see against what the analyst (and, by extension, the broader financial community) sees. This creates a rhetorical juxtaposition – even a conflict – between two authoritative perspectives.

The Y-structure in Fig. 55 shows the reconstruction of the inferential connection between 1.1a.1a.1 and 1.1a.1a.

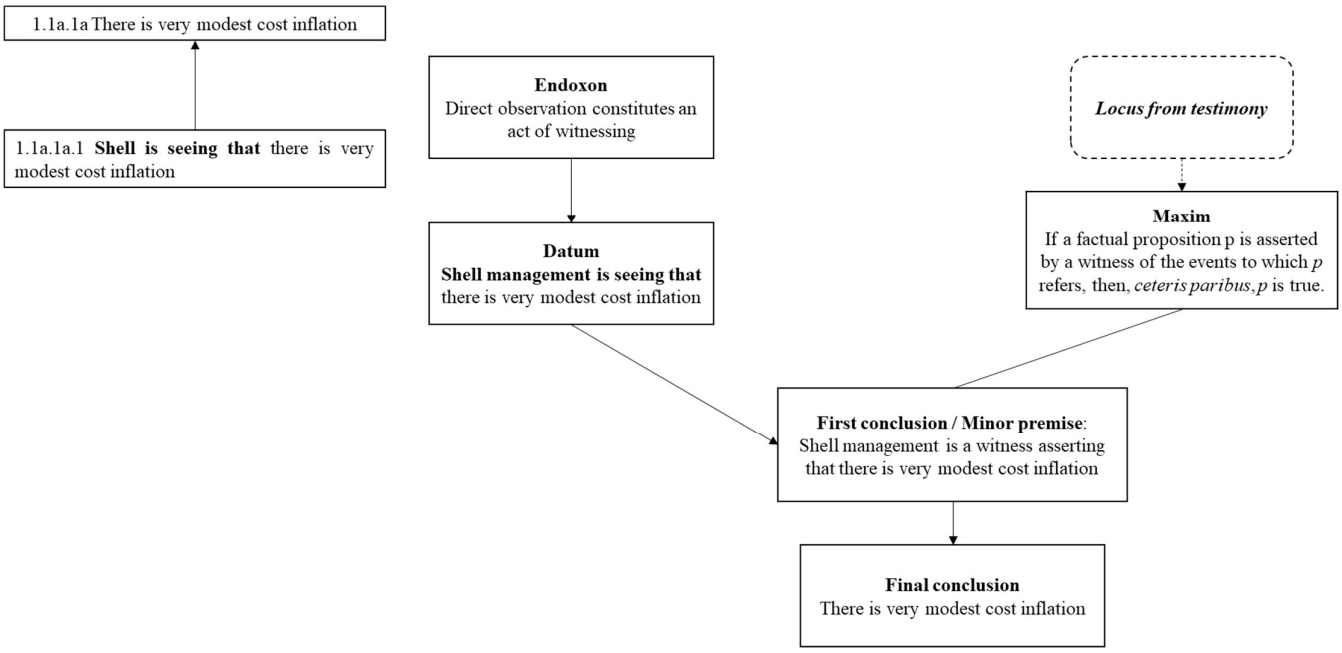


Figure 54. Y-structure of the inferential connection between 1.1a.1a.1 and 1.1a.1a (example 158) – evidential micro-argument

What is the role of the two direct evidential frames in this argumentation? The direct evidential frame in premise 1.1a.1a (*we are actually seeing very modest cost inflation*) works as an ancillary argument from testimony supporting the acceptability of the premise and could be reconstructed as a subordinate argument the conclusion of which is "(it is true that) there is a very modest cost inflation". Conversely, the direct evidential frame in the standpoint (1) works as a sort of additional, strengthening argument for an already justified conclusion. On the other hand, framing the proposition in the conclusion as something observed entails that it is something that wouldn't require justification; something that could count as a fact requiring *explanation* rather than an uncertain, disputable claim requiring argumentation. In this case, it is quite evident that the fact that the cost inflation is not affecting Shell is not a shared, already accepted fact – thus it cannot count as an *explanandum*. It is also true that the analyst in her question, while asserting the presence of inflation costs, asks *how* Shell's procurement side is protecting the company from that potential cost inflation, presupposing that it is. To sum up, the manager is framing the modest inflationary effects as an evidence, and the inferential chain supporting this assertion results framed (vaguely) in such a way that could work as both an argumentation and an explanation, subtly strengthening the idea that the manageability of the situation is a fact. This strategic construction on the one hand reassures investors and stakeholders, and on the other remains quite vague in what exactly the company is

doing and to what extent such measures protect the company, suggesting that such details are little relevant - given that the situation is unalarming.

8.2.2. Hearsay

Hearsay frames are even more strongly associated with premises than direct frames, as 231 out of 264 argumentative instances (88%) occur in premises. This finding is compatible with what discussed in the literature on the argumentative role of reportative constructions. We can consider two main cases: when the quoted source is the interlocutor and when the quoted source is a third party.

In the first case, as van Eemeren et al. (2007a) observe, similar constructions often signal the acceptance of the proposition attributed to the interlocutor, which in turn allows that proposition to become a shared starting point for further argumentation (a premise, in the context of the present study) (see also §2.4.3). In this sense, arguers need to argue *ex concessis* (see §4.4.2.3), namely starting from what is already accepted by the interlocutor.

Jacquin (2022), through a contrastive corpus analysis of the French evidential marker *tu dis / vous dites* ('you say'), demonstrates that the relationship between reported speech and stance-taking is not uniform, but rather highly context-sensitive. While the adoption of the interlocutor's proposition as a shared premise remains the most frequent pattern, in certain contexts – particularly adversarial settings such as debates – the same construction is predominantly oriented toward disagreement and contestation. In such cases, it serves to frame the reported content as a target of opposition rather than as an accepted starting point for argumentation. Although these findings partially corroborate the observations of van Eemeren et al. (2007), they also highlight that the reporting of others' speech may fulfil a broader range of argumentative functions than previously assumed. In particular, arguers may report the discourse and premises of others – whether those of the immediate interlocutor or of third parties – not only to build upon them, but also, as Jacquin (2022) shows, to express disagreement and position themselves in opposition. In some cases, arguers may concede an opponent's argument or standpoint before subsequently countering it. The former configuration can be schematized as "You said / X said A; I disagree / I maintain A / I propose B (B ⇒ A)" thereby positioning the speaker in an explicitly antagonistic relation to the quoted source and establishing a clear difference of opinion.[122] By contrast, concessive moves typically follow a pattern such as "You said /

[122] This type of construction is more likely to operate at the level of the standpoint.

X said A; [A is true], but it is also true that B". In this case, the arguer acknowledges and accepts A, while introducing an additional premise B that is presented as more relevant. The argumentative attack is thus directed not at the validity of the initial premise, but at its relevance and/or sufficiency in supporting the conclusion. In this sense, a concessive move accepts (concedes) the premise while rejecting the standpoint, by advancing a stronger or more decisive premise in support of a counter-standpoint.[123]

The second case – reported speech or hearsay frames in which the source is a third party – can likewise be expected to function as premises insofar as (a) it seems unlikely, in an ECC setting, that what someone else said should constitute the object of a standpoint; and (b) reporting the words of others is often associated with *arguments from authority*.[124]

When taking a closer look at the micro-argumentative nature of hearsay frames, in fact, they can be expected to work as ancillary arguments based on the *locus from authority* – usually in the variant of the *locus from expert opinion*. This functional overlap was already highlighted by Miecznikowski (2020:55).

> "[t]he affinity between *loci* from authority and evidential frames […] is particularly obvious in the case of hearsay information whose justificatory power is usually based on expert opinion or common opinion: a speaker argues that a proposition p is true, or at least possibly true, because some other person or group of persons said p and that person or group are trustworthy and are supposed to possess relevant knowledge."

Interestingly, also cases of the first type – reportatives in which the source is the interlocutor – can work as arguments from authority as well. As I will show in the examples below, participants in ECCs quote the counterpart to validate a statement, which is often a premise – usually, analysts quote managers in order to both present a premise as

[123] Rocci (2021) and Rocci and Lucchini (2025) consider every counterargument as always entailing a concession: By presenting a counterargument, an arguer implicitly acknowledges that the target argument has been (or could be) put forward, thereby conceding that the opposing party has at least articulated some form of reason, which entails recognizing the argument as a prima facie reason in Pollock's (1987) sense – something that, in the absence of a counterargument, could be (or was) accepted as a defeasible reason." (Rocci and Lucchini, 2025:5).

[124] I verified this hypothesis in the corpus: out of the 27 instances of hearsay that have a third-party as source (see Ch. 7, §7.2.3.2.3), 24 (89%) occur in a premise, 1 (4%) occurs in an intermediate conclusion, and 2 (7%) in non-argumentative sequences.

shared (and thus as an acceptable and legitimate starting points) and to show that such premise is justified as asserted by an authority.

In (159), Airbnb's CFO, Dave Stephenson, refers to insights gathered from *guests* – specifically, that they are becoming increasingly flexible in their travel choices. This behavioural shift implies for the company a greater ability to direct demand toward areas where supply is available. This, in turn, represents a strategic capability that allows Airbnb to better match demand and supply, thereby enhancing operational efficiency, stabilizing revenues, and improving customer satisfaction.

> (159) Dave Stephenson (corporate; Chief Financial Officer) The holy grail for matching supply and demand is to be able to also control where you can point demand. But we can't point demand to where we have supply if guests aren't flexible if they're predisposed to where they want to travel. Now that ***guests are telling us*** that they're much more flexible about where they travel, we can point demand to where we have supply. This is probably one of the most important things we have. (ABNB_Q1_21)

It is possible to reconstruct the argumentative structure of this passage by identifying the implicit main standpoint as "*Airbnb can match supply and demand*". This standpoint, as previously discussed, serves as an argument supporting the broader claim that Airbnb is well positioned in terms of efficiency and revenue stability owing to its capability to align supply with demand. The reconstruction of this further, higher-level argumentative layer, however, will not be pursued here, as it falls beyond the scope of the present analysis, focused on the hearsay frame.

Similarly to what we saw for direct frames, it is possible to reconstruct hearsay frames as arguments supporting the truth and acceptability of the proposition in their scope – i.e., as ancillary arguments appealing to a complex locus from authority whose conclusion is "*p is true*".

(1. Airbnb can match supply and demand)
- 1.1a The holy grail for matching supply and demand is to be able to also control where you can point demand.
- 1.1b Now Airbnb can point demand to where they have supply.
  - 1.1b.1a You can point demand to where there is supply only if guests are flexible.
  - 1.1b.1b Now *guests are telling Airbnb* that they're much more flexible about where they travel.

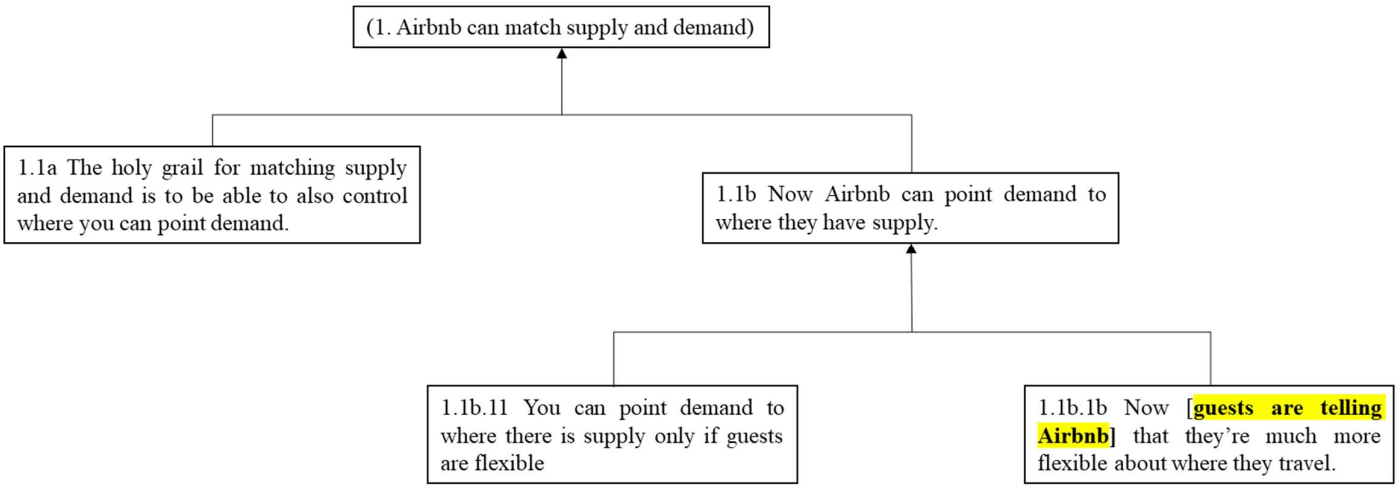


Figure 56. Argumentative structure of example (159)

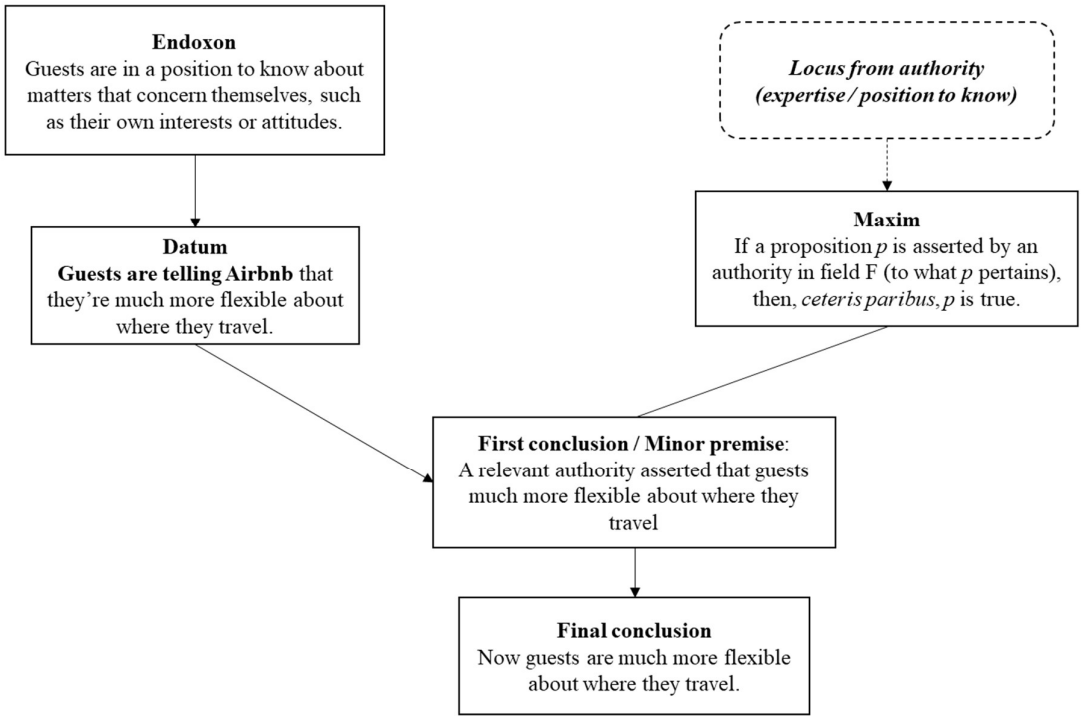


Figure 55. Y-structure of the inferential connection of the evidential micro-argument (hearsay frames) of example (159)

Reconstructing the inferential configuration of the premise-conclusion connection between 1.1b.1b and 1.1b.1b.1, it emerges that the focal point is the fact that quoting someone on a matter concerning themselves – as, in this case, being flexible about traveling – counts as an argument that makes it acceptable. Indeed, a person counts as the

highest authority on personal attitudes, opinions, or interests as these are A-events, meaning that they are part of the person's own territory of information (see §3.4.1.1). Interestingly, this aspect can be analysed either as an endoxon or as integrated in the maxim. Notwithstanding this small difference, the two reconstructions show essentially the same strategy: in both analyses, it clearly emerges that the status of the invoked source (the guests) as expert – or in a position to know – is due to the fact that the matter discussed is something that concerns them.

I propose to analyse this type of argument as a specific subtype of the locus from authority: the *horse's mouth*, as the "authority" of the source is essentially, as said above, its status of concerned person – it is not really an authority related to an acquired expertise.

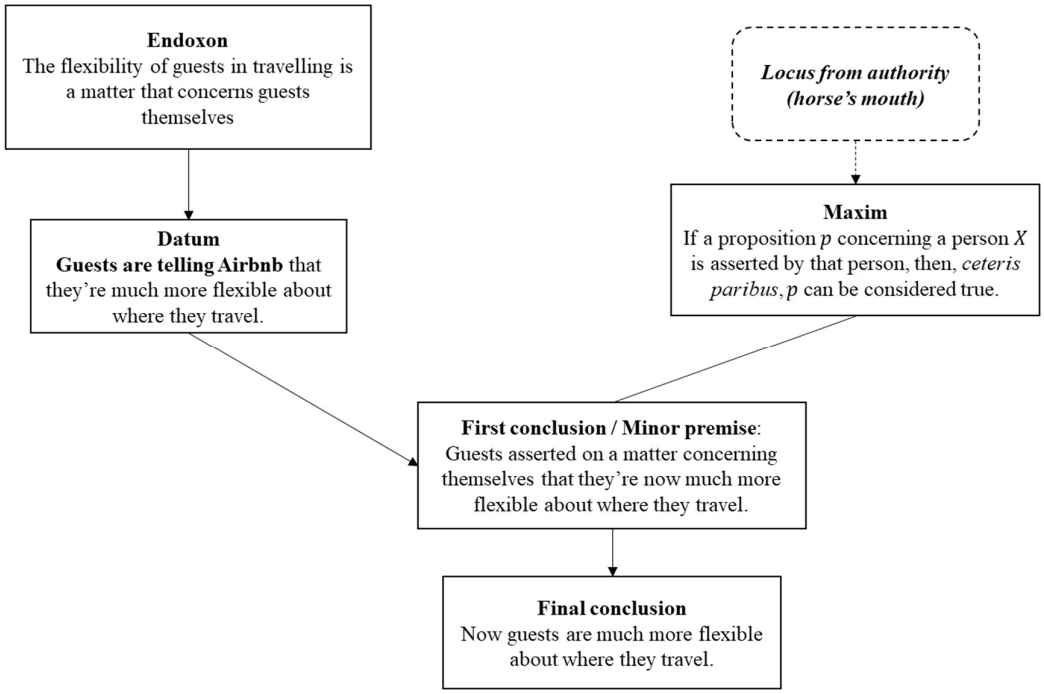


Figure 57. Y-structure of the inferential connection of the evidential micro-argument (hearsay frames) of example (159) with the *locus from horse's mouth*

Similarly to (61), in (62), Brian Chesky, Airbnb's CEO, refers to what "*people*" say in surveys conducted by the company; by referring to these surveys, he shows that what he asserts – the fact that people miss traveling – is anchored in a reliable source (people itself).

(160) Brian Chesky (corporate; Co-Founder and CEO) I think there is a mass shift from mass travel to meaningful travel. Because people missed traveling. In fact ***in my surveys, people say*** the thing they miss the most that was taken away from the pandemic, at least from outdoor activities, was travel. But they don't miss business

travel. They don't miss standing in line in front of a museum or a selfie -- a landmark getting a selfie stick -- getting a photo with a selfie stick. What they really miss is spending time with the people they care about. And we call this meaningful travel.

We can reconstruct the argumentative structure as follows:

1. There is a mass shift from mass travel to meaningful travel.
    (1.1 People missed meaningful travel – and not mass travel)
        1.1.1a People missed traveling.
            1.1.1a.1 [*In Airbnb's surveys, people say*] the thing they miss the most that was taken away from the pandemic, at least from outdoor activities, was travel.
        1.1.1b What people really miss is spending time with the people they care about.
            1.1.1b.1 People don't miss business travel. They don't miss standing in line in front of a museum or a selfie, a landmark getting a photo with a selfie stick.
        1.1c And we call this meaningful travel.

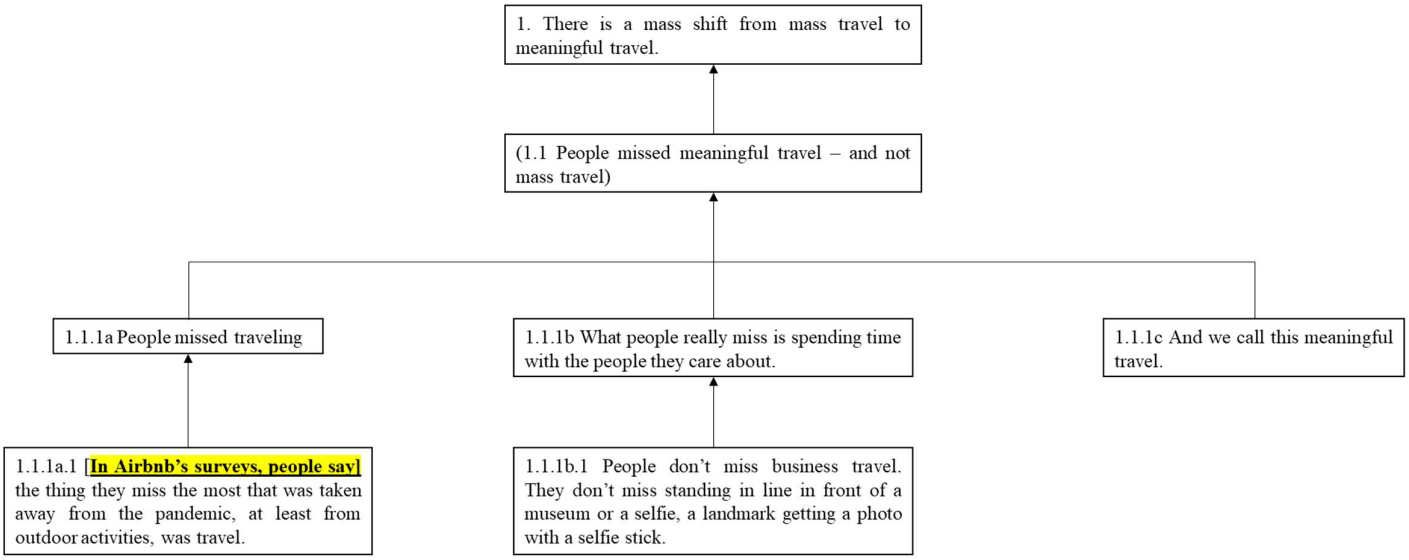


Figure 58. Argumentative structure of example (160)

The hearsay evidential in 1.1.1a1 can be reconstructed as a further supporting argument 1.1.1a.1.1, as shown in Fig. 60.

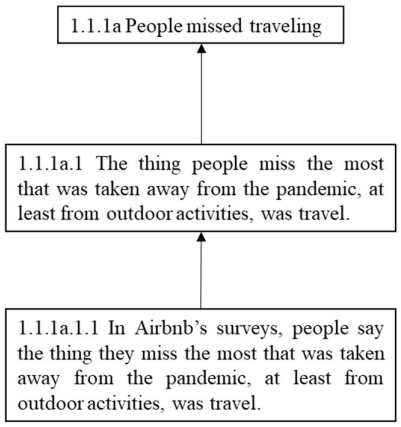


Figure 60. Reconstruction of the argumentative structure explicating the role of the evidential argument as subordinated argument (condensed)

However, what is interesting in this case is that the conclusion *p is true* can be already seen in 1.1.1a, which is fundamentally tautological to 1.1.1a.1, as asserting that "the thing people miss the most was travel" is essentially equivalent to stating that "people missed traveling". In this sense, reconstructing this further level can be redundant, and we could take out argument 1.1.1a.1, as shown in Fig. 61.

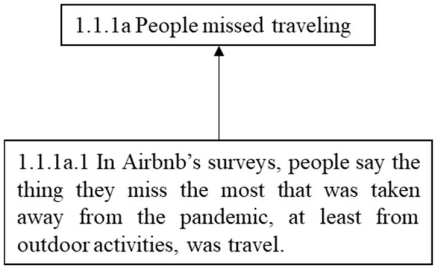


Figure 59. Argumentative structure explicating the role of the evidential argument as subordinated argument (1.1.1a.1.1 supporting 1.1.1a.1)

Examples (159) and (160) are both taken from managers turns. However, these examples are not representative, as it is in fact quite rare, in our data, for managers to employ hearsay authority arguments that quote a third party to validate a proposition. In most cases, they quote themselves, or other managers, to construct a form of "narrative coherence" (see §7.3.4.2). This strategy may be considered a rhetorical move, while it is not necessarily argumentative in the micro-sense – i.e., quoting oneself does not function as a justification for the quoted proposition.

Let us now analyse some examples from analysts.

(161) Ron Josey (analyst; JMP Securities) And ***you talked in the letter*** as well, just a long list of complexities across these categories, and you're up for the challenge. But maybe help us understand what are the complexities? (DASH_Q2_21)

In (161), the analyst refers to a letter issued by the company, which mentioned *complexities across the new categories*, and then asks for clarification on what these complexities are. By referring to a s proposition *p* said by the management itself, the analyst argues that *p* is the case.[125] It is important to notice that when analysts quote managers they are – at a dialectical level – arguing *ex concessis* (see §4.4.2.3).

As in the previous examples, we can reconstruct the argumentative structure, analysing the hearsay frame as a subordinate argument from authority.

But maybe help us understand what are the complexities?
(1. There is a long list of complexities across new categories for Door Dash and Door Dash is up for the challenge)
1.1 [***Door Dash management talked in the letter***] about a long list of complexities across new categories and said that they are up for the challenge.

[125] As will be discussed in detail in Ch. 9, quoting an authority – especially the management itself – is a strategy employed by analyst to justify the question. I already discussed in Ch. 4 (§4.4.2.2.1) and Ch. 6 (§6.4.3.1) how prefaces can work as arguments in support of the interrogative act; in §9.2.1 I will detail how this argument works at the micro-level, unravelling its argumentative structure.

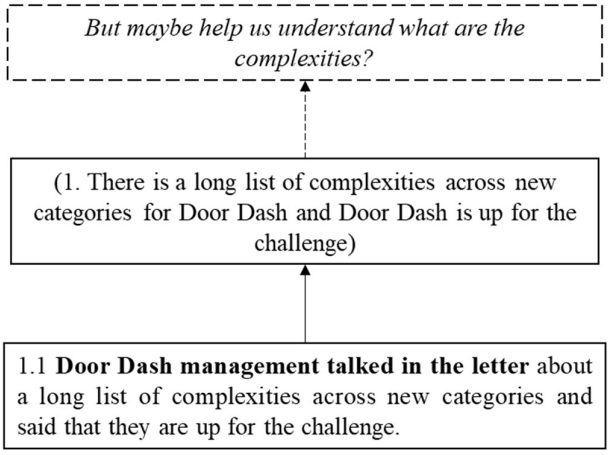


Figure 61. Argumentative structure of example (161)

We can reconstruct the inferential connection as appealing to the locus from authority, in the variant of the horse's mouth:

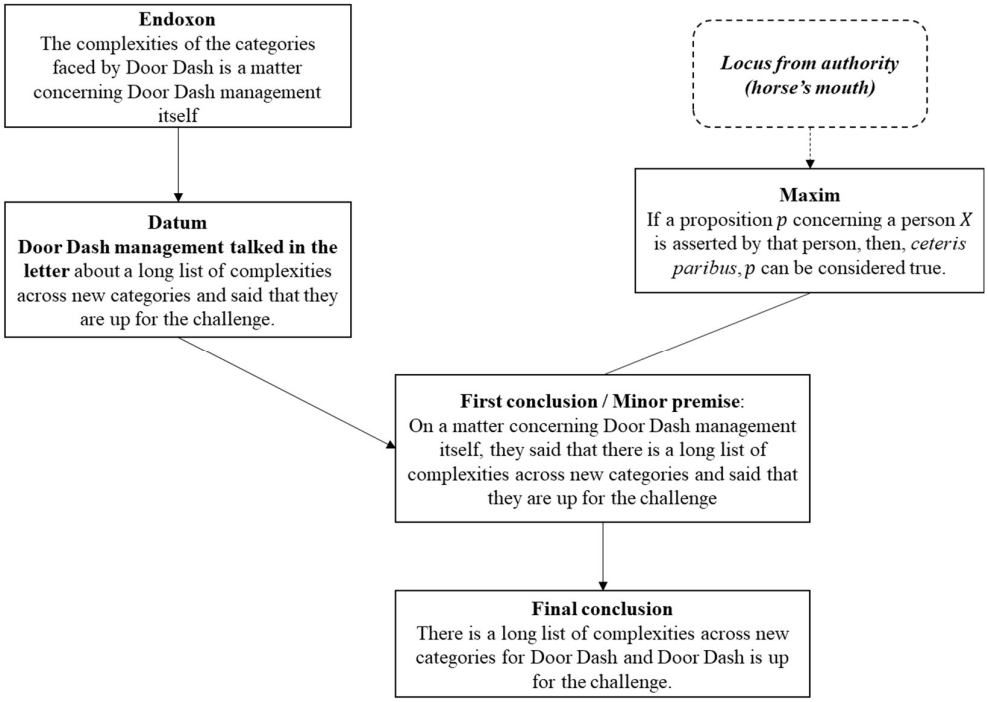


Figure 62. Y-structure of the interential connection between 1.1 and 1 – evidential micro-argument

The example in (161) constitutes the most straightforward case: the analyst refers to something disclosed by the company and simply asks for clarification or for more information. We found the same strategy in many other cases, as in (162).

(162) Steven Fox (analyst; Fox Advisors LLC) Hi, good afternoon. Just two questions ***from the letter*** I was curious if you could expand on. ***You mentioned*** three points of category share in the quarter. And then, ***you also mentioned*** gaining more DashPass subscribers. Can you give us a little bit of color around what you're seeing that's driving that? What's behind the numbers basically? Thanks. (DASH_Q2_21)

Can you give us a little bit of color around what you're seeing that's driving that? What's behind the numbers basically?
(1.There are factors that drive the increases in the numbers of category share and Dash pass subscribers)
(1.1a Door Dash increased its share of the total market by 3 percentage points during the quarter.)
1.1a.1 [***DoorDash earnings letter mentioned***] three points of category share in the quarter.
(1.1b Dash Pass subscribers increased)
1.1b.1 [***DoorDash earnings letter also mentioned***] gaining more DashPass subscribers.

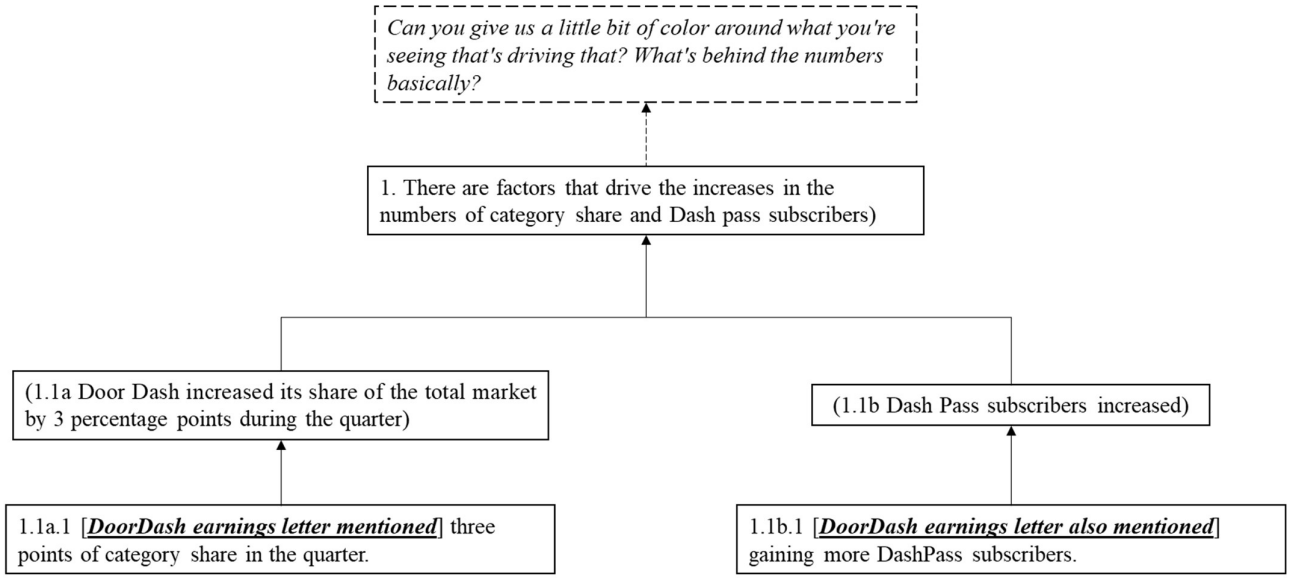


Figure 63. Argumentative structure of example (162)

Fig. 65 shows the Y-structure reconstructing the inferential connection between 1.1a.1 and 1.1a. The same structure also would apply for the inference between 1.1b.1 and 1.1b.

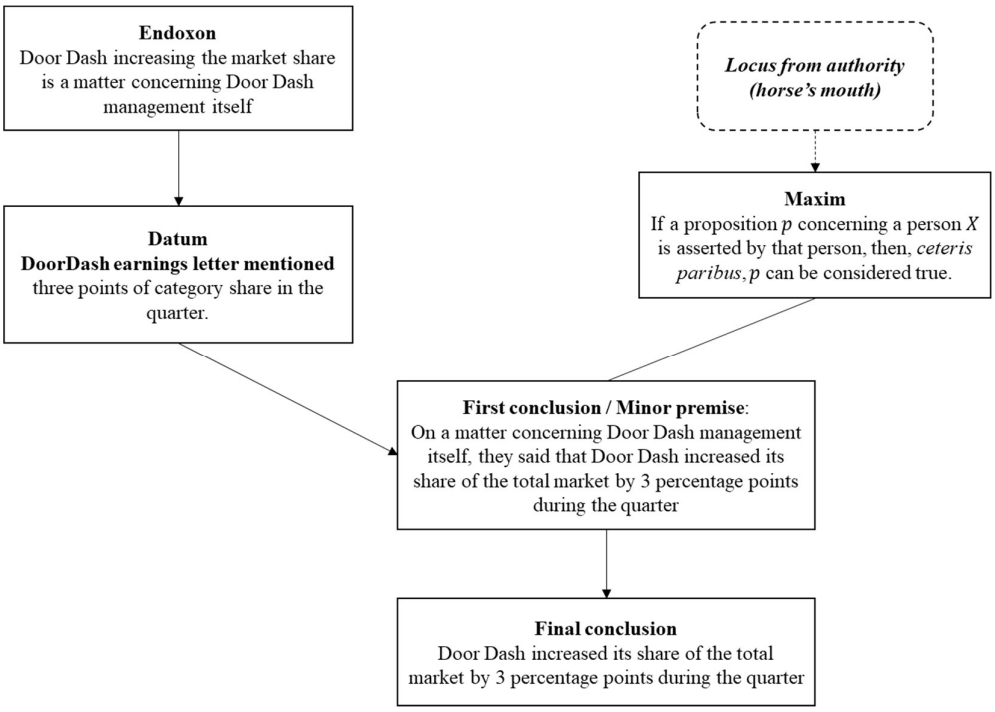


Figure 64. Y-structure of inferential connection between 1.1a.1 and 1.1a – evidential micro-argument

Example (163) is slightly different.

(163) Biraj Borkhataria (analyst; RBC Capital Markets) Hi, thanks for taking my questions. Two, please. The first one is on divestments. ***There were some reports recently*** about you potentially looking to divest to the Permian. And I was wondering whether you can make any comments on that given ***it was highlighted*** as one of your nine core upstream regions. (SHEL_Q2_21)

Here, we find two hearsay frames: in the first, the quoted source is a not specified *report*, according to which Shell is divesting (selling) a business, the Permian Basin; in the second (*it was highlighted that*) the source is left vague, and the agent is not clearly indicated – however, it was the company itself to publicly and explicitly disclose the fact that the Permian business is one of the nine core Upstream positions (e.g., in Shell's Q3 2020 press release). We therefore have a contrast between the importance of the business, which was confirmed by the company itself, and the decision of divesting it – which explains the question on the subject. In a way, there is also a contrast between the two sources.

We can reconstruct the argumentative structure as follows:

(1. There must be an explanation to Shell's decision to divest the Permian business, as there is a contrast with the business' importance)
1.1a [***There were reports recently***] about Shell potentially looking to divest to the Permian
1.1b [***Shell highlighted that***] the Permian business is one of its nine core upstream regions

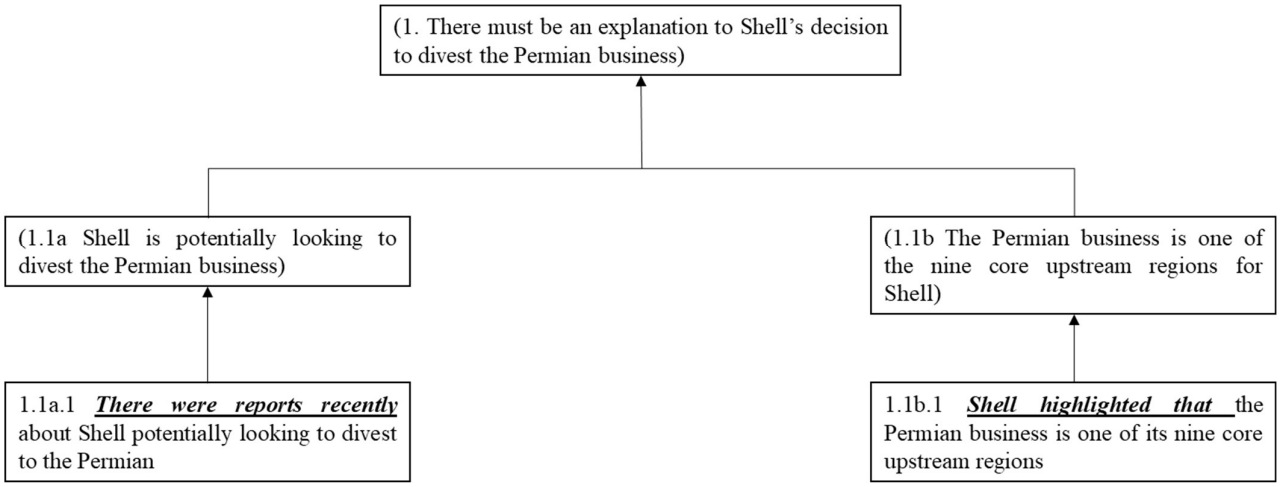


Figure 65. Argumentative structure of example (163)

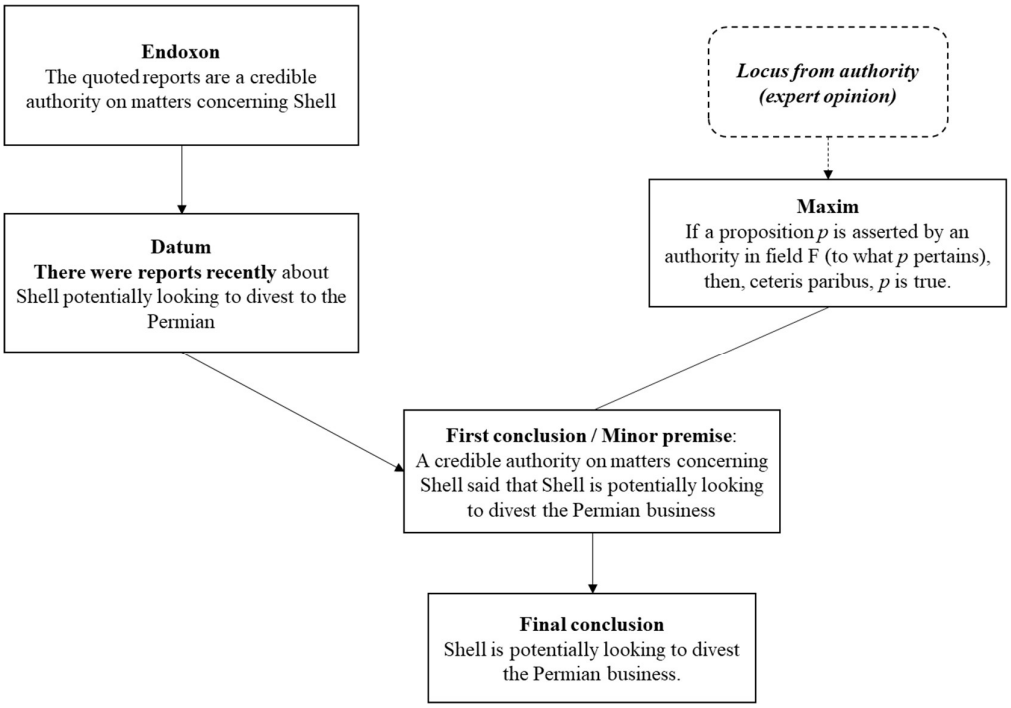


Figure 66. Y-structure of the inferential connection between 1.1a.1 and 1.1a – evidential micro-argument

The structure in Fig. 67 already includes the reconstruction of the two frames as subordinate arguments. The inferential connection between 1.1b.1 and 1.1b is analogous to those reconstructed above – argument from authority, in the variant of position to know or horse's mouth, as the quoted source is the company itself. In contrast, as the source invoked in 1.1a.1 is a third party, we have a slightly different inferential configuration, as shown in Fig. 67.

Here the locus employed is that of expert opinion, and the argument rests on the endoxon that the quoted reports can be considered an authority, which is presupposed by the analyst. However, the manager in his answer downplays this source as "rumour":

> (164) Ben Van Beurden (corporate; Chief Executive Officer): I've seen the rumors as well. We don't comment on rumors. And I didn't think today was a particularly good day to start changing that practice. So I'm afraid you will have to live with that.

Although there is no clear counterargument that challenges the conclusion nor the argument, framing the source as a rumour can be understood as a strategy to undermine its value as authority and challenges the endoxon.

In (163) the speaker employs a strategy quite common among analysts (which has already been introduced in §4.4.2.2.2 and will be discussed more in detail in §9.2.2.2.2): he depicts an inconsistency between two sources, one of which is the company itself.

In this section, we saw different variants of the argument from authority instantiated by hearsay evidential frames. All of them could be reconstructed as arguments appealing to the ReP locus, according to Miecznikowski's (2020) view. It is important to notice that in these cases, it is not only the *procedure* – the *hearsay process* – that is reliable, but most importantly the invoked *source*. In Miecznikowski's account, the source selection is part of the procedure, meaning that the reliability of the hearsay procedure depends on who the source is. Indeed what distinguishes the micro-argumentative structure of direct and hearsay frames is essentially that, while the former are always argumentative in the same way – claiming of having seen *p* consistently serves as an argument in favour of the acceptability of *p*, as visual perception is generally considered a ReP argument, and always commits the speaker to the truth of *p* – the fact that *someone told p* does not necessarily imply the speaker's commitment toward *p*, meaning that it is not granted that they believe *p* (or the person who reported it). As Musi (2014:137, my translation) points out, "[w]hen the deictic origin of the information lies not with the speaker but with external sources

(such as reported speech or hearsay), the introduced clause does not necessarily express the speaker's own thesis. It does so only insofar as the speaker's voice aligns with that of the reported source or with hearsay". Moreover, even if the speaker conveys that they believe and accept *p* and make clear that the hearsay is advanced as argument supporting *p*, the status of the quoted source as authority may not be shared by the interlocutor, resulting either in a weak, questionable argument or – in some cases – in a fallacy. As it emerges, for instance, in example (163), the authority of the quoted source can be challenged, even refuted – which means that the endoxon is refuted. The endoxon of the locus from expert opinion is disputable, as there might not be agreement between two arguers on the status of someone as an authority – either because they genuinely disagree, or because the arguer invokes a false, unrecognised (and thus fallacious) authority. In a way, in the case of direct evidentials the reliability depends on the knowledge acquisition process, while the validity of hearsay frames as arguments depends on the commitment toward *p*, depending on the source-authority invoked.

In this context, I also argue that, while direct evidentials can be reconstructed as generic ReP arguments based on the endoxon that direct testimony is *per se* a reliable procedure to acquire knowledge (except for cases where the speaker explicitly asserts that it is not the case), in the case of hearsay in reconstructing the ReP argument it is necessary to take the source into account, including its characterization as an authoritative source in the reconstruction.

8.2.3. Inferential evidentiality

The functional isomorphism between evidentiality and argumentation, previously noted in §3.5, emerges with particular clarity in the case of inferential evidentials. Inferential markers are, indeed, "intrinsically argumentative, and their semantic meaning is precisely that of indexing a premise-conclusion relation and signalling that a reasoning took place, the result of this reasoning being the proposition over which the inferential takes scope" (Lucchini et al., 2024:8). In other words, inferential frames are always *per se* argumentative. This does not mean, however, that inferential markers always occur in argumentative moves – as it is shown by the data in §8.1. In particular, if the source – the premise of the inference – is absent, it is not possible to retrace an argumentative construction at a macro-level. But, at a micro-level, the semantics of inferential expressions always indicates that the proposition they introduce is obtained through a

reasoning procedure. As Musi (2014:137, my translation) points out, when "evidentials indicate an inferential source of information, they always entail speaker commitment (*prise en charge*) and at least potentially imply the presence of argumentation – even if such argumentation remains inaccessible, confined to the speaker's inner dialogue". Miecznikowski (2020:56), as already discussed in §3.5.1.1, proposes to analyse such arguments as based on the *locus from reliable inferential procedure*: "a matching 'pragmatic' maxim can be added to link the procedure by which the speaker has acquired p to the truth of the speaker's statement. Such a maxim could refer specifically to inferential procedures, stating that 'If S acquires p through a reliable inferential procedure, p is likely to be true'. This amounts to enrich the family of *loci* from authority by a *locus* 'from reliable inferential procedures'". She argues that in such instances, the inferential frame functions as a micro-argument from a reliable inferential procedure and may co-occur with additional arguments supporting the conclusion: "[w]hen speakers combine evidential source categorizations with actually performed argumentation, the analysis […] must reconstruct two or more different arguments: an argument from a reliable inferential procedure of knowledge acquisition and one or more further arguments that exhibit salient parts of that inferential procedure" (Miecznikowski, 2020:57). As already discussed in previous analyses, reconstructing the inferential evidential as an instance of an argument from a reliable inferential procedure (henceforth, ReInf) is unnecessary when both the premise and the conclusion are explicitly expressed. In such cases, the inferential merely signals the presence of an inferential connection and does not, in itself, constitute an additional argument. By contrast, when it is not possible to reconstruct the full argumentative structure – namely, when no explicit premise is provided or, as I will show below, when the premise is only alluded to through a noun phrase – the ReInf argument is the only one that can be reconstructed. In both scenarios, therefore, only one argument can be reconstructed: either the operative explicit argument or the ReInf argument. This contrasts with Miecznikowski's proposal, according to which two distinct arguments should be reconstructed.

Below, I analyse instances of inferential evidentials occurring both in conclusions and in premises, and, for the latter, I consider both cases in which it is possible to reconstruct the full argument and those in which such reconstruction is not possible.

8.2.3.1. Inferential evidentials in conclusions

When inferential evidentials occur in conclusions, they signal the inferential step connecting premise to conclusion. In such instances, the inferential evidential does not function as a micro-argument *per se* but has the mere role of indicating the source (see §3.5.1.1).

Example (165) illustrates this pattern: the inferential marker "*we expect*" introduces the conclusion (further signalled by "therefore") and establishes a premise-conclusion relationship by indexing a source-premise articulated in the preceding sentence ("*we have said 80% of our spend is in the core assets, and that is no different for 2020 -- sorry, 2022*").

> (165) Ben Van Beurden (corporate; Chief Executive Officer) Again, [*we have said 80% of our spend is in the core assets, and that is no different for 2020 -- sorry, 2022*]. And therefore, ***we expect*** more to go into Deep Water, where we have quite a few good opportunities that we are executing on and maybe a few more to come. (SHEL_Q4_21)

The argumentative structure of (165) can be reconstructed as follows:[126]

1. Shell expects more to go into Deep Water
    (1.1a 80% of Shell's spend for 2022 is going to be in the core assets)
        1.1a.1a 80% of Shell's spend is in the core assets
            1.1a.1a.1 Shell has said that 80% of Shell's spend is in the core assets
        1.1a1b That is no different for 2022
    (1.1b Deep Water is part of Shell's core assets)
    2. Shell has a few good opportunities in execution in Deep Water and maybe a few more to come

In this instance, the inferential appears in the final standpoint 1. The verb "to expect" inherently introduces an expectation (concerning the increase in expenditure in Deep Water) which is based on two arguments: on the one hand, the fact that Shell stated that it would spend a certain amount (80% of its expenditures) on core assets, which includes Deep Water as well, and that they are not changing the strategy; on the other hand, on the fact that Deep Water offers good opportunities for the company – and probably even more in the future. These two lines of arguments are represented by 1.1(a and b) and 1.2.

[126] Argument 1.1a.1a contains a hearsay frame which can be reconstructed as an argument from authority (see 8.2.2), which is already reconstructed in the structure as argument 1.1a.1a.1.

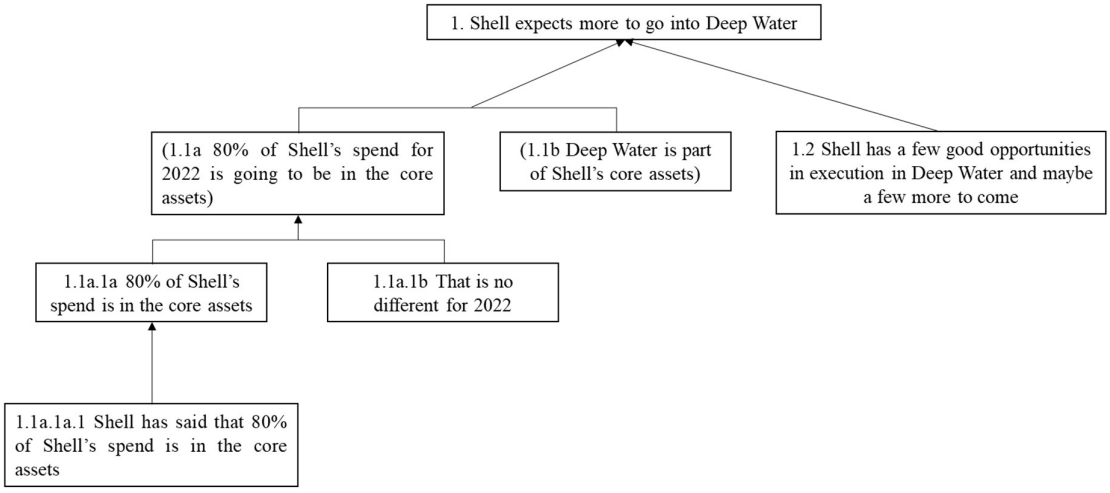


Figure 67. Argumentative structure of example (165)

The inferential relation between 1 and 1.1a and 1.1b is based on the *locus from genus and species*, while the relation between 1 and 1.2 is based on the *locus from final/instrumental cause*.

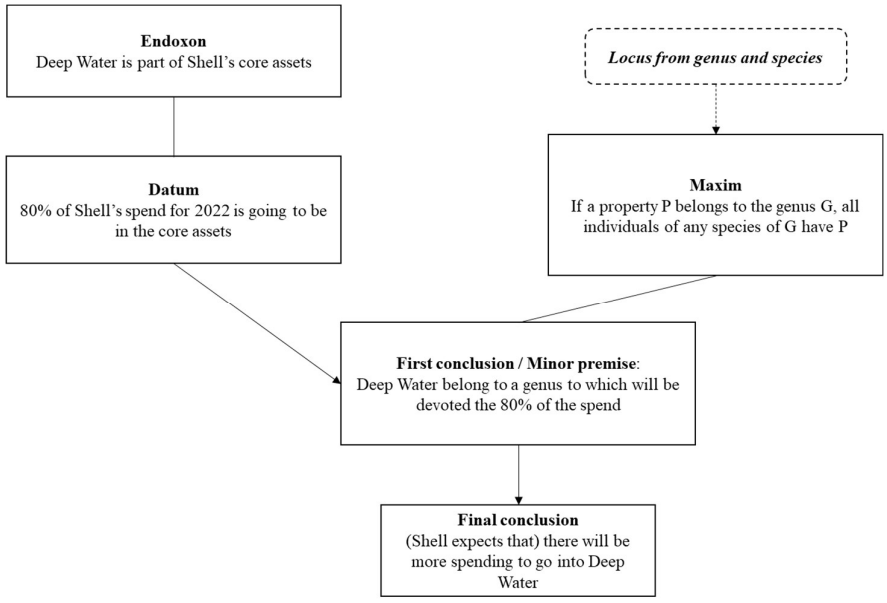


Figure 68. Y-structure of the inferential connection between 1 and 1.1a and 1.1b

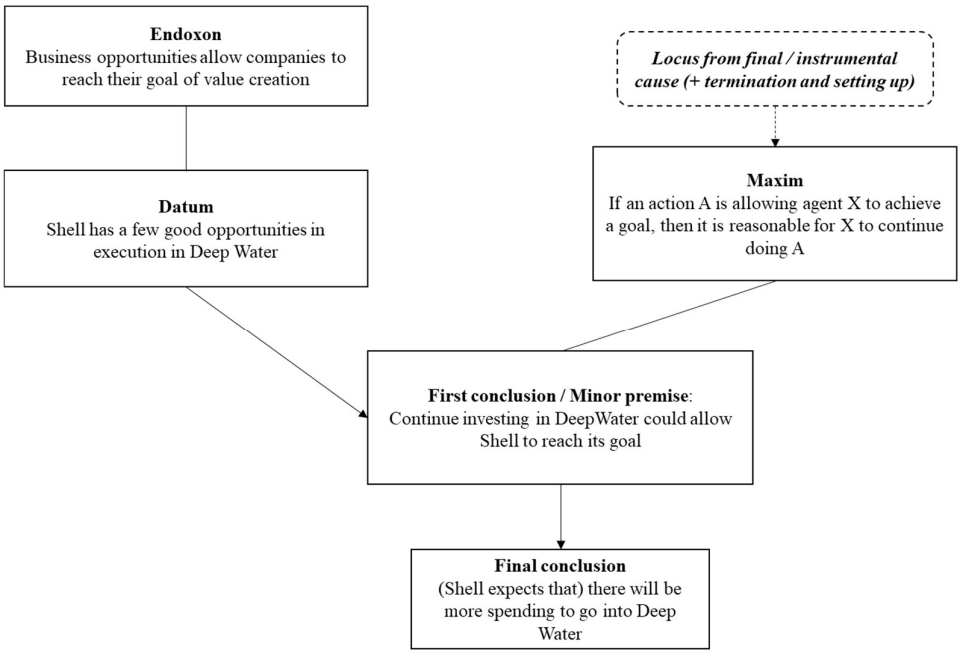


Figure 69. Y-structure of the inferential connection between 1 and 1.2

Example (166) functions similarly to the preceding.

(166) Prabir Adarkar (corporate; Chief Financial Officer) We took a bunch of actions, including improving the efficiency of the logistics network, expanding our marketing funnels, improving our conversion rates for Dashers. And as a result, we're now acquiring more Dashers per week than we were compared to Q1. [*So we're well supplied today*], and ***we expect*** that to be the case for the foreseeable future. (DASH_Q1_21)

It can be reconstructed as follows:

1. DoorDash expects to be well supplied with Dashers for the foreseeable future

1.1 DoorDash is well supplied today with Dashers

1.1.1 Door Dash took a bunch of actions, including improving the efficiency of the logistics network, expanding the marketing funnels, improving the conversion rates for Dashers. And as a result, Door Dash is now acquiring more Dashers per week than they were compared to Q1.

Also in this case, it is possible to reconstruct the two inferential configurations of the link between 1.1 and 1. In this case, the operative inference in based on the locus from analogy, which relies upon the construction of a "*functional genus*" to which similar entities, individuals or events belong and in virtue of which can be put in comparison. In

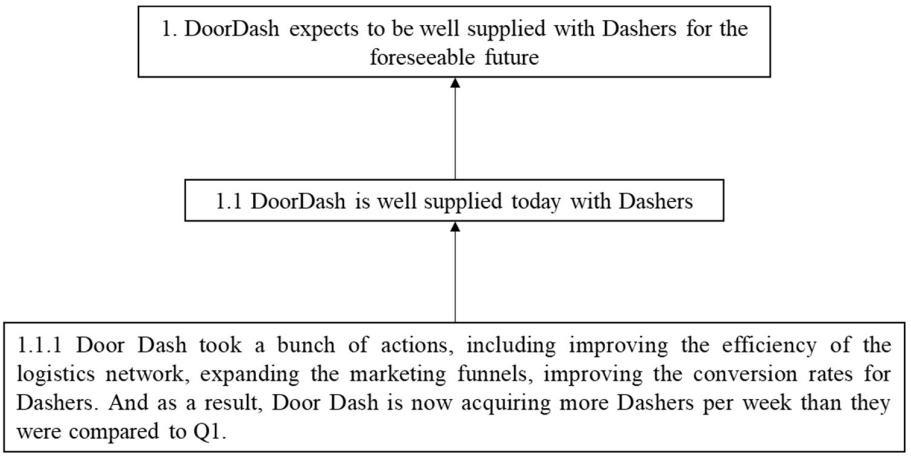


Figure 70. Argumentative structure of example (166)

this specific instance, the present and future conditions of the company are considered comparable – as part of the same functional genus – and the fact that an event (Door Dash being well supplied with Dashers) is observed in the present situation allows to infer that it is likely to be true in the comparable, future situation as well.[127]

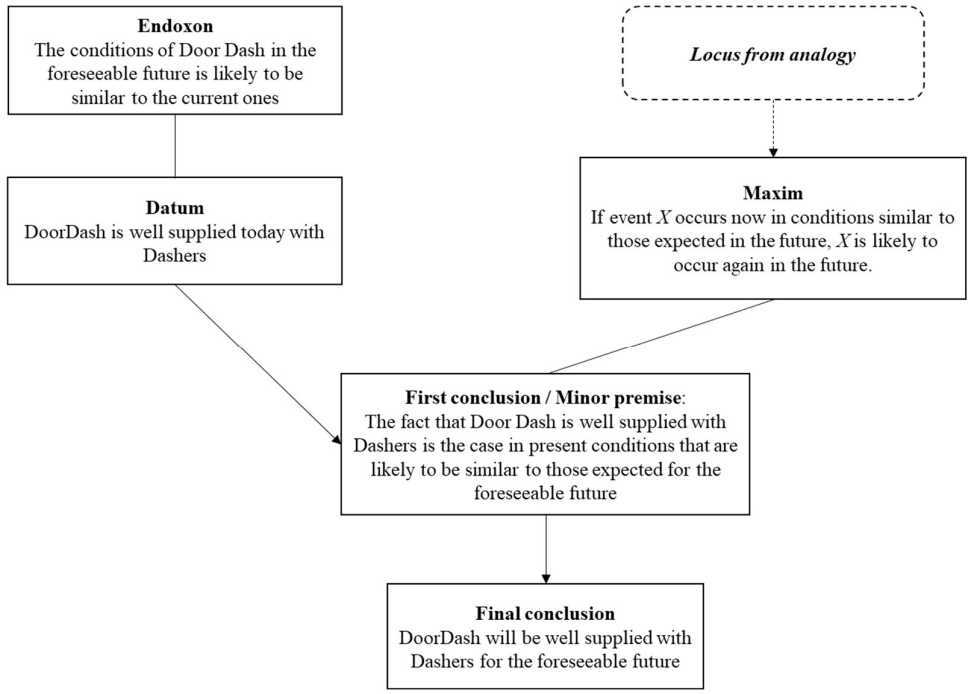


Figure 71. Y-structure of the inferential connection between 1.1 and 1

[127] Previous scholarship has examined the role of predictions in economic-financial discourse, with particular attention to the argumentative resources mobilised to support predictive standpoints (Palmieri and Miecznikowski, 2016; Rocci, 2017). Palmieri and Miecznikowski (2016) find that, in their corpus of financial newspaper articles, the most frequently employed loci in the justification of predictions are causal loci and the locus from authority.

In example (167) we find an inferential frame occurring in an intermediate conclusion.

(167) Thomas Gottstein (corporate; Chief Executive Officer): And as [*the first quarter numbers*]$_{source}$ ***have shown***, we were really on the right track. [With 80% revenue growth, I think we have pretty much outperformed everybody else in the first quarter.]$_{source}$ [So, to say that everything is broken on the IB, which I kind of implied from your question, is a bit unfair, I think, against this background.] (CS_Q1_21)

In the inferential frame "*as the first quarter numbers have shown, we were really on the right track*" contains an inferred proposition ("*we were on the right track*") that coincides with the conclusion and is introduced by the inferential verb "*to show*". This verb takes "*the first quarter numbers*" as its argument, which functions as the source of the frame and, as such, as the premise of the inferential process. This premise is subsequently expanded and clarified in the following sentence: "*With 80% revenue growth, I think we have pretty much outperformed everybody else in the first quarter*".

1. It is unfair to say that everything is broken on the Investment Banking
   1.1 [***As the first quarter numbers have shown***] Credit Suisse was really on the right track.
      1.1.1 With 80% revenue growth, Credit Suisse outperformed everybody else in the first quarter.

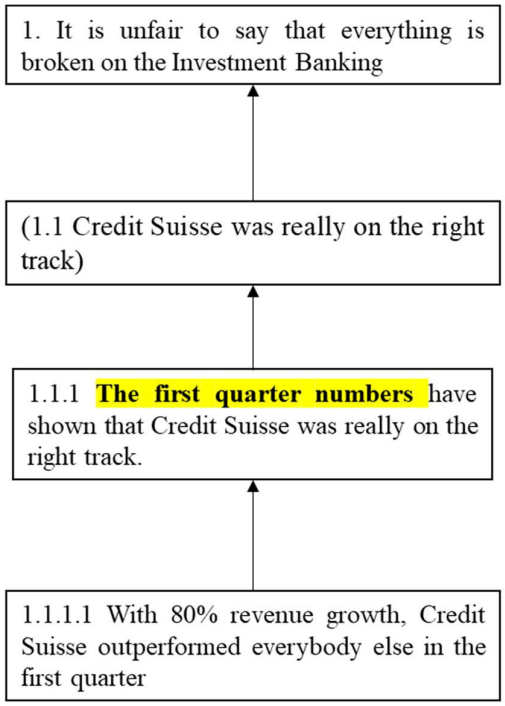


Figure 72. Argumentative structure of example (167)

This sentence provides specific details regarding the numerical data (it explicitly establishes an 80% revenue growth), thereby clarifying why the first quarter numbers serve as indicators of being "on the right track". The noun phrase (i.e., the source of the frame) thus operates cataphorically referring to the following sentence.

Two key observations emerge from this analysis. First, the conclusion containing the inferential construction functions as an intermediate conclusion that supports standpoint 1 – the central claim of the manager's response and the direct answer to the analyst's question. Second, the argumentative structure actually permits an alternative reconstruction. In the reconstruction presented in Fig. 73, argument 1.1.1 is treated as an autonomous argument supporting the implicit conclusion 1.1, which corresponds to the propositional content within the scope of the inferential. This conclusion is itself supported by argument 1.1.1.1, which explicates the "first quarter numbers", thereby justifying how these figures warrant the conclusion that Credit Suisse was on the right track. However, argument 1.1.1 may be considered redundant, as both the propositional content (functioning as conclusion) and the source (functioning as premise) are already reconstructed as 1.1 and 1.1.1.1, respectively. The inferential frame serves to verbally represent and explicate the inferential connection between these two elements: "*to show*" operates as a textual placeholder for the inference itself. Since the argumentative reconstruction represents this inference through the arrow notation, argument 1.1.1 and the inferential construction may be omitted, as demonstrated in the alternative reconstruction in Figure 74.

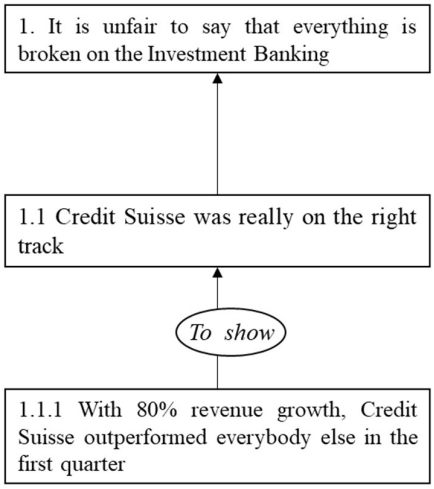


Figure 73. Argumentative structure of example (167) dissolving the inferential in the connection

In the reconstruction of the operative inference between 1.1.1 and 1.1, 1.1 coincides with the conclusion-proposition *p* of the inferential frame, and the latter omitted – it is considered as the indicator of the inference (as in the analysis in Fig. 74). As the Y-structure shows, the inference is based upon an intrinsic locus of efficient cause, where the warranting endoxon concerns the causal relation between the company's results and its "being on the right track".

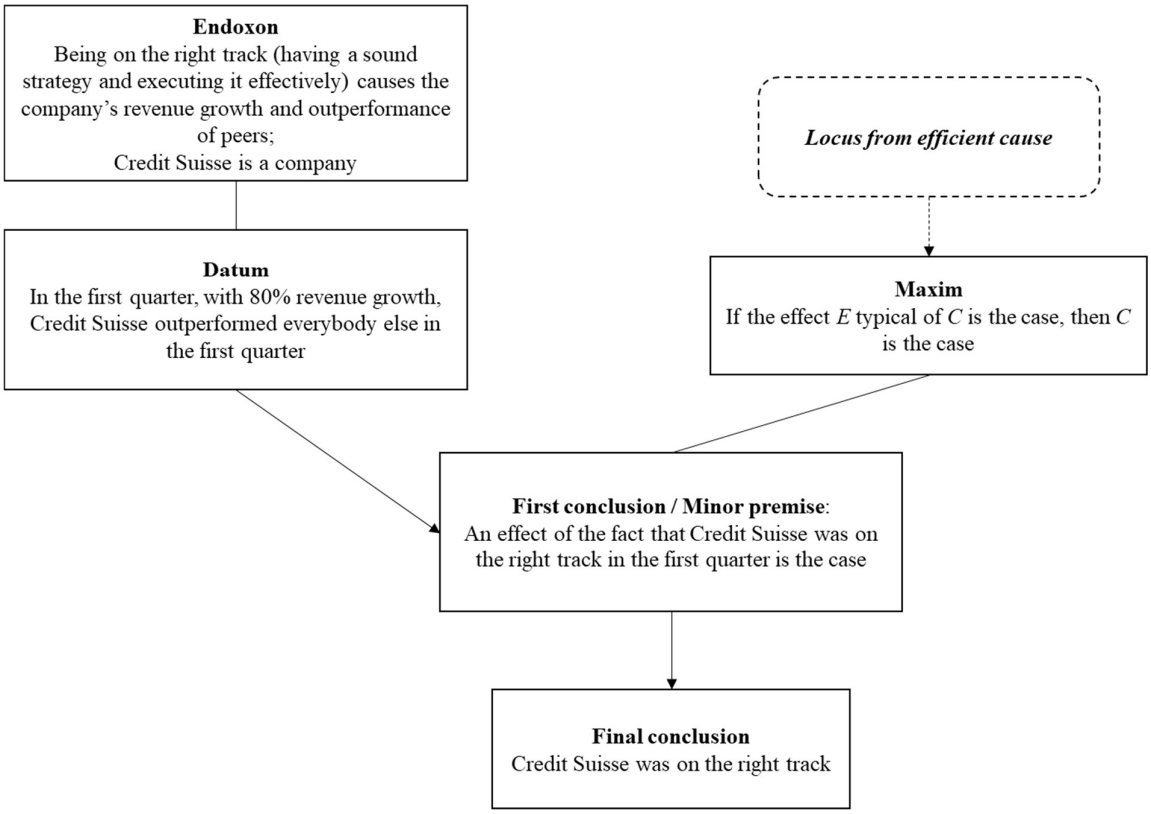


Figure 74. Y-structure of the inferential connection between 1.1.1 and 1.1 – evidential micro-argument

The reconstructions of examples (164), (165) and (166) show that when an inferential frame occurs in a conclusion or intermediate conclusion, it signals a premise-conclusion relation in which the premise is textually explicit. This premise may either coincide directly with the source or, as demonstrated in example (167), may be anaphorically referenced by the source.

8.2.3.2. Inferential evidentials in premises

I shall now turn to the functioning of inferentials when they occur in premises. In this case, as these are basic premises that are not supported by further arguments, the

conclusion-proposition of the frame is justified only by the inferential frame itself, which has the function of presupposing that an inferential reasoning took place and, therefore, that there are grounds to conclude *p* – in this sense, it works as a ReInf argument.

In such cases, different options are possible: a) the inferential frame contains a source that evokes the premise; b) the inferential frame does not contain a source.

Examples (168), (169) and (170) are representative of the first case.

(168) Thomas Gottstein (corporate; Chief Executive Officer) [Secondly, on CSAM, as I also said before, I always felt this should be its own division and the issue around Greensill has accelerated that move and we created its own division under leadership now of Uli Korner.] ***As you could see*** [*from the first quarter*]$_{source}$, this business is actually doing very well with high returns. This is an important business for us. I believe very strongly that Global Wealth Management needs to have strong asset management capabilities. So, this is strategically important. (CS_Q1_21)

The argumentative structure can be reconstructed as shown below.

1. The creation of a standalone division of Credit Suisse Asset Management (CSAM) business is strategically important.
   (1.1a The CSAM business is doing very well with high returns)
      1.1a.1 ***As you could see from the first quarter***, this business is actually doing very well with high returns.
   1.1b The CSAM business is an important business for Credit Suisse.
      1.1b.1The Global Wealth Management needs to have strong asset management capabilities

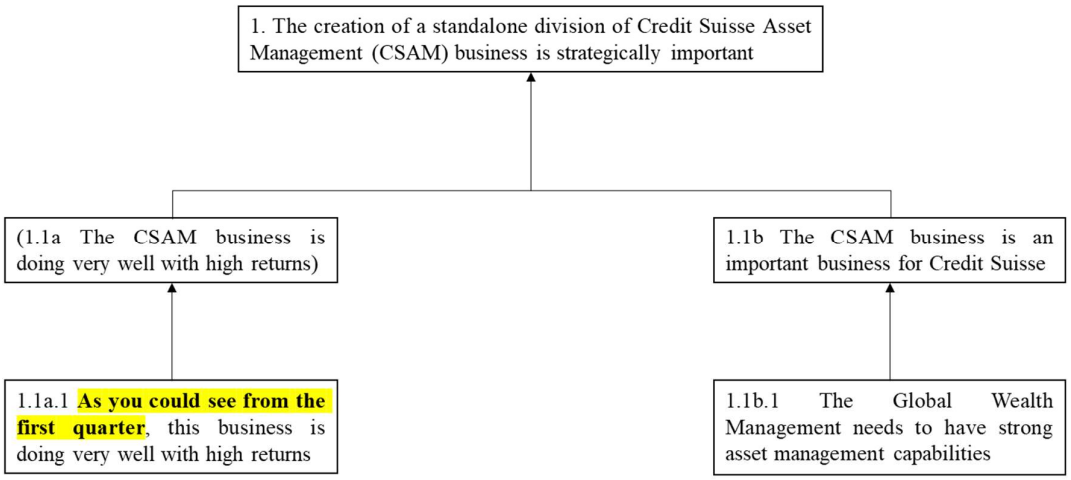


Figure 75. Argumentative structure of example (168)

In the argumentative structure above, I reconstruct the propositional content of the frame as a higher, implicit conclusion (1.1a) that is supported by the inferential frame itself. Having made explicit that the inferential frame works as argument that supports the proposition-conclusion, it is possible to reconstruct the Y-structure of the inferential link between the two.

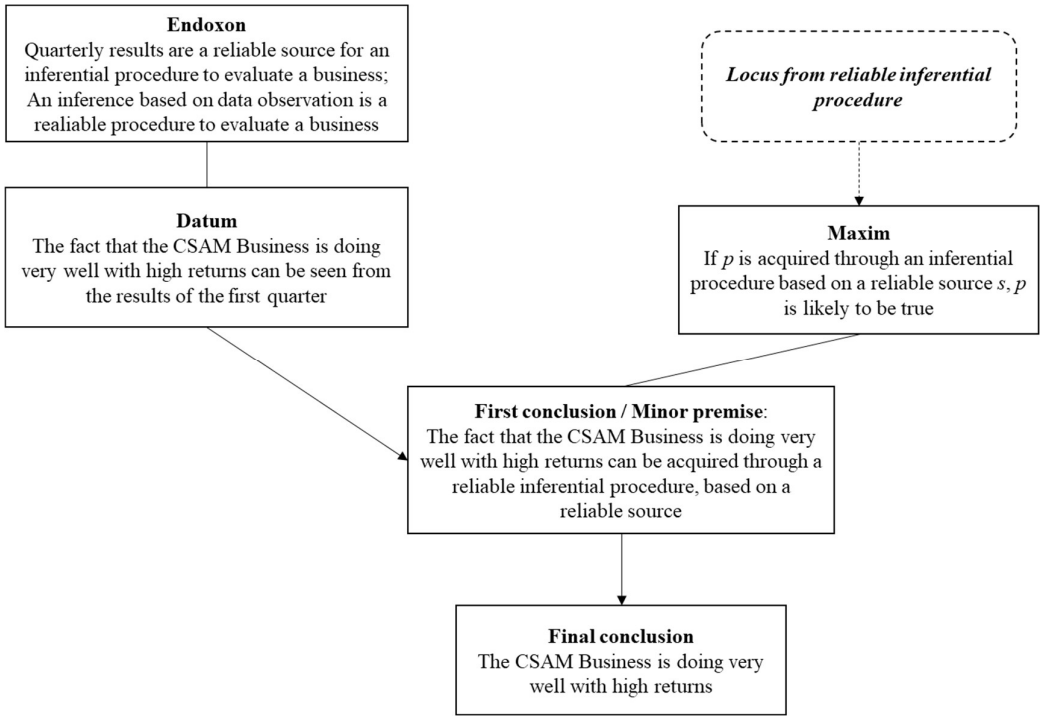


Figure 76. Y-structure of the inferential connection between 1.1a and 1.1a.1- evidential micro-argument

In this case, although the source evokes a premise that relates to the *first quarter*, it is not possible to recover the premise itself, and thus it is not possible to reconstruct the underlying argument but only the ReInf argument, which leaves unspecified what are the grounds of the premise.

Example (169) is similar to (168): we find the inferential frame in a basic premise without further supporting arguments.

(169) Brian Chesky (corporate; Co-Founder and Chief Executive Officer) Now as far as trends for guests, Justin, I'll also cover this as well. As I said before, I think two things are true. Number one, this is a travel rebound that is starting that is unlike anything we've ever seen before. And I think [*the Q1 results*] ***kind of demonstrate this***. (ABNB_Q1_21)

The proposition-scope of the frame can be thus reconstructed as a conclusion of the same (standpoint 1 in the reconstruction below) supported by the frame (1.1).

1. The guests' trend is a travel rebound that is starting that is unlike anything they have ever seen before.
   1.1 The Q1 results ***demonstrate that*** the guests' trend is a travel rebound that is starting that is unlike anything they have ever seen before

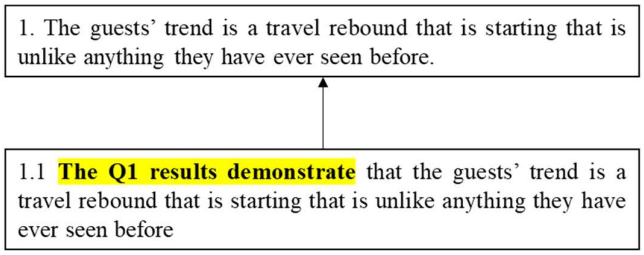


Figure 77. Argumentative structure of example (169)

In this case as well we can reconstruct the Y-structure of the ReInf argument:

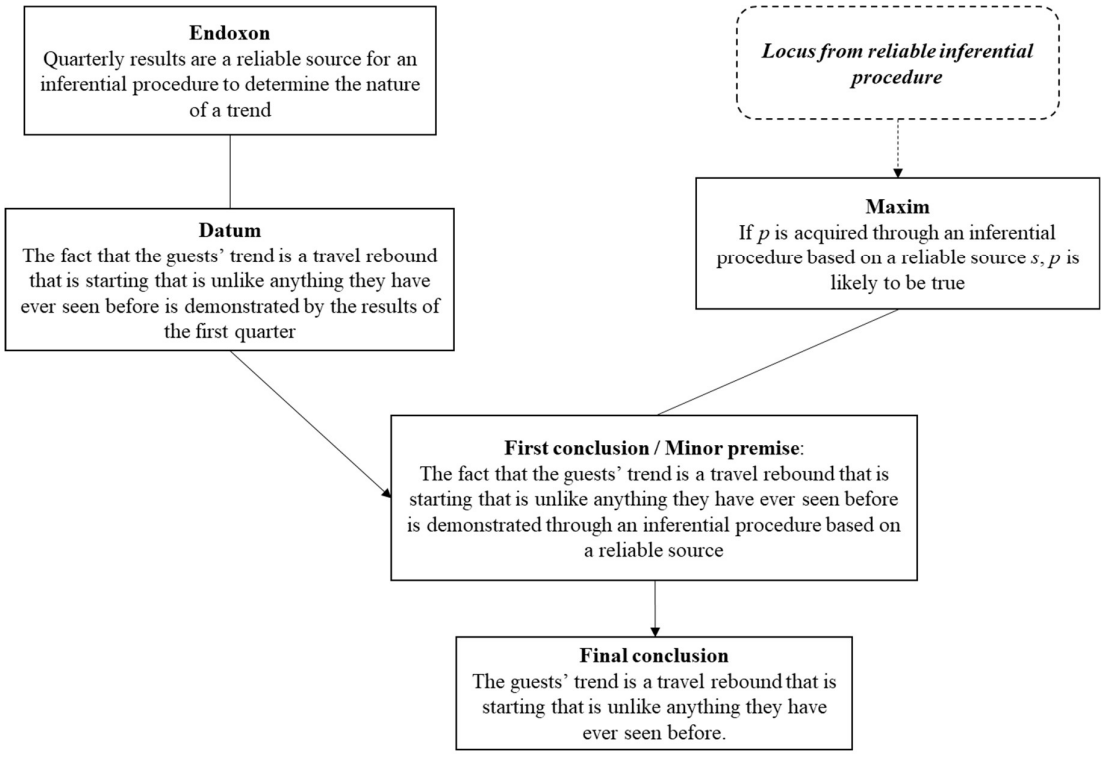


Figure 78. Y-structure of the inferential connection between 1.1 and 1 - evidential micro argument

Example (170), which works exactly as the previous two, is interesting to analyse as it is a representative instance of a typical move by analysts, which is the *request of confirmation of inference* (ROCOI) (Rocci & Raimondo, 2017, 2018; D'Agostino & Rocci, 2024). In this type of request, the analyst presents an inference and seeks validation of it. While the surface act is a request for confirmation of a conclusion (*p*, based on *q*), it also indirectly invites endorsement of the underlying reasoning and premises (when present).

(170) Jason Gabelman (analyst; Cowen and Company) ***<u>It does sound like</u>*** you're reassessing that now that you're a bit more confident in the market outlook. Is that a fair assessment of [your comments]$_{source}$ today? (SHEL_Q4_21)

In this instance, the analyst leaves the inference largely implicit; the inferential operator "*it sounds like*" construct an inferential frame that is quite vague about the source, apart from its being auditory The source however is easily recoverable from the dialogic context and, moreover, made explicit in the immediately following statement: as the analyst is asking whether his conclusion *is a fair assessment of today's company's comments*, we understand that his conclusion is an assessment of these comments, namely that it originates from what the managers said during the call.

Is that a fair assessment of Shell's comments today?
(1. It is likely that Shell is reassessing that now that Shell is a bit more confident in the market outlook)
1.1 It does sound like Shell is reassessing that now that Shell is a bit more confident in the market outlook.

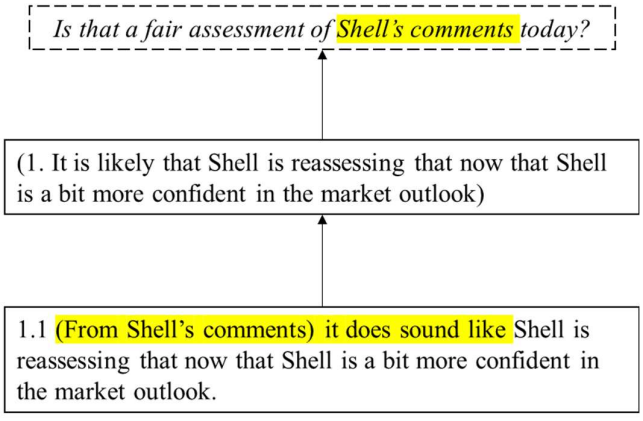


Figure 79. Argumentative structure of example (170)

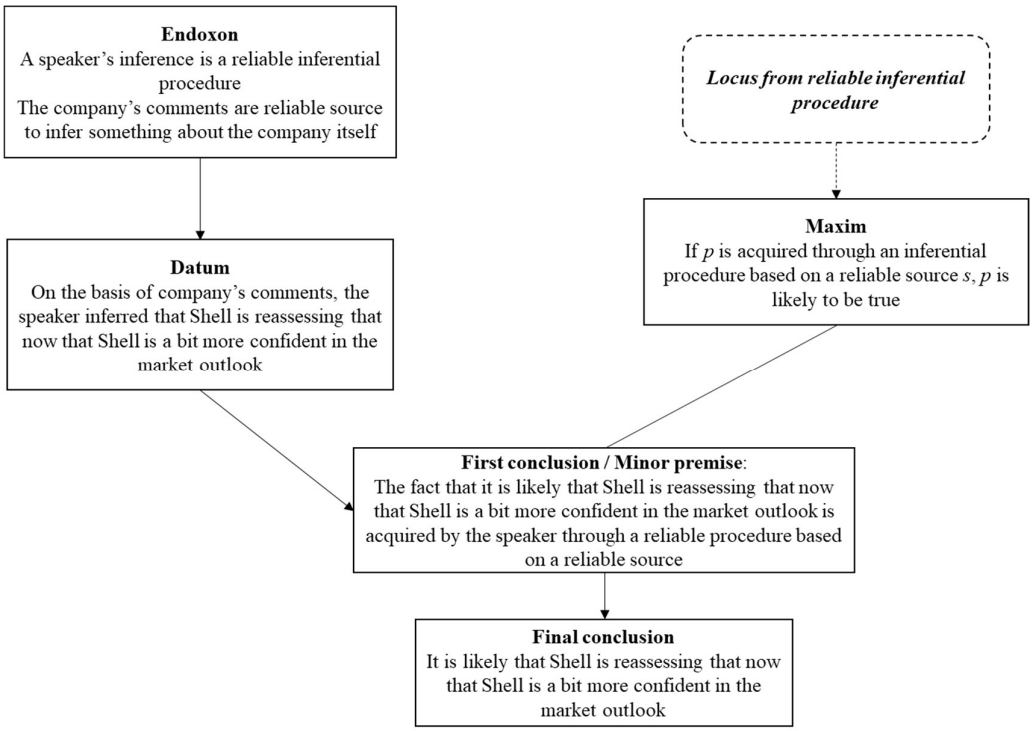


Figure 80. Y-structure of the inferential connection between 1.1 and 1 - evidential micro argument

In example (171), the speaker-analyst employs an inferential frame in the preface to a question, thereby establishing the basis for the forthcoming inquiry.

(171) Mark Mahaney (analyst; Evercore ISI): [You just talked about having this record day. I think you said last Saturday, and I think you're also maybe appropriately cautioning about third-quarter trends and variance and Delta. So just kind of put those things together.] [*Record day*]$_{source}$ still ***sounds like*** things are good, but I'm sure there are some warnings out there. Can you be more specific about what you're seeing that's causing you to be just a little more cautious about Q3 and the back half of the year? (ABNB_Q1_21)

The inferential element appears in a premise that indirectly justifies the question. It supports the implicit conclusion that "*things are good*", which is then contrasted with the company's cautious stance regarding third-quarter trends and other factors ("*you're also maybe appropriately cautioning about third-quarter trends and variance and Delta*"). This contrast invites the inference that additional, potentially adverse information informs the company's caution ("*but I'm sure there are some warnings out there*", "*what you're seeing that's causing you to be just a little more cautious about Q3 and the back half of the year*").

Through the use of this inferential structure, the speaker-analyst signals that the proposition "*things are good*" is derived from the evidence of a "*record day*" a fact previously disclosed by the company itself ("*You just talked about having this record day. I think you said last Saturday*") – the hearsay frame here serves as argument from authority justifying the proposition in 1.1a.1a.

The argumentative structure can be reconstructed as follows.

Can you be more specific about what you're seeing that's causing you to be just a little more cautious about Q3 and the back half of the year?
1. Airbnb is seeing something that is causing them to be more cautious.
    1.1a (Things are good for Airbnb)
        (1.1a.1a Airbnb had a record day)
            1.1a.1a.1. Airbnb talked about the fact that they had a record day last Saturday
        1.1a.1b *Record day* ***sounds like*** things are good
    1.1b Airbnb is cautioning about third-quarter trends and variance and Delta

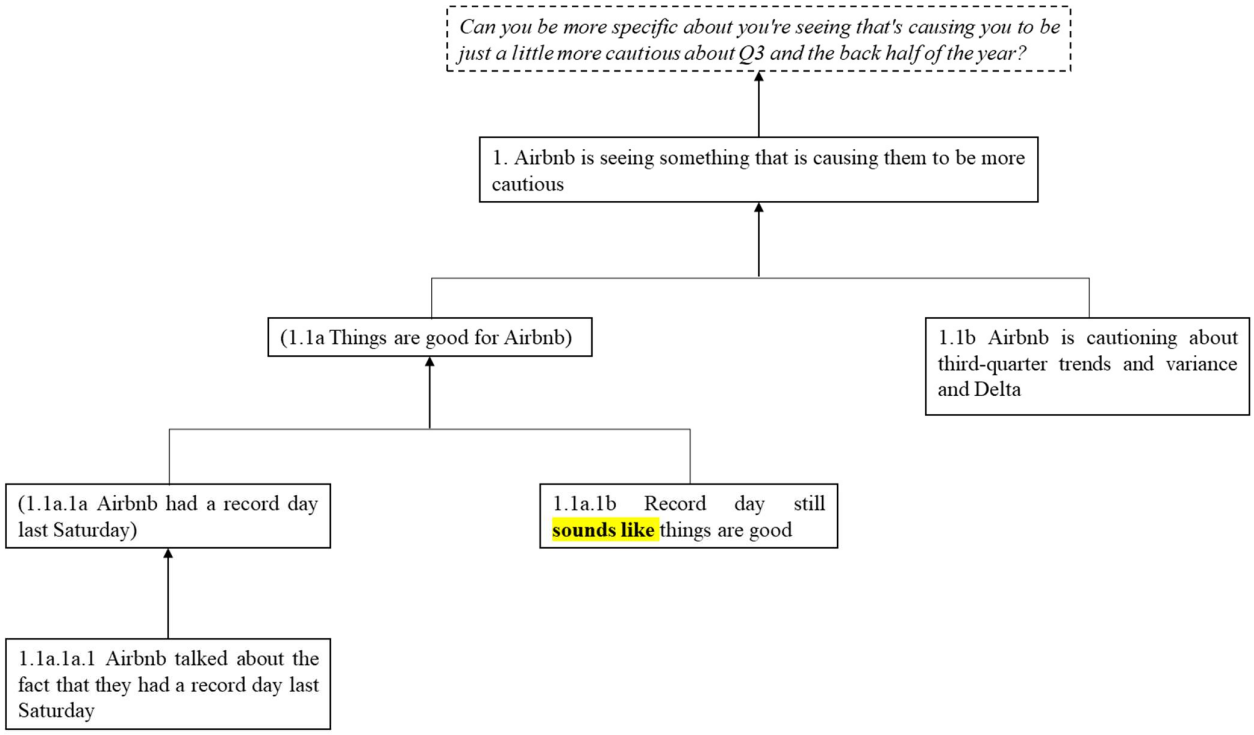


Figure 81. Argumentative structure of example (171)

In the argumentative structure in Fig. 82, the inferential frame is reconstructed as a premise (1.1a.1b) that supports the (implicit) conclusion 1.1a – corresponding to the proposition scope of the inferential frame – on the basis of the premise 1.1a.1a – which corresponds to the source of the frame, embedded in the frame in the phrase "*record day*

(*sounds like*)". All the elements of this coordinated argumentation are actually entirely realized by the inferential frame, which could also be reconstructed deleting the inferential premise and considering the inferential as the placeholder for the inference itself, as represented in Fig. 83 below:

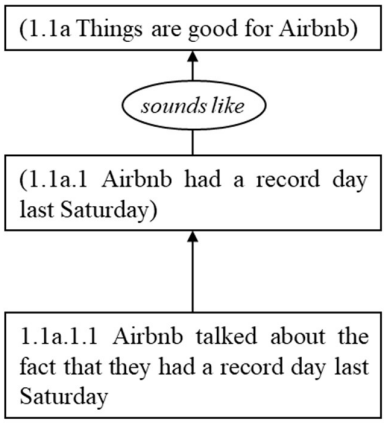


Figure 82. Argumentative structure of example (171) dissolving the inferential frame

As in this case the premise is recoverable, it is possible to reconstruct the "operative" inference and therefore the ReInf argument is resolved. The argument provided is an argument based on the *locus from ontological implications*, based on the "ontological" relation between the record day and the positive situation of the company.

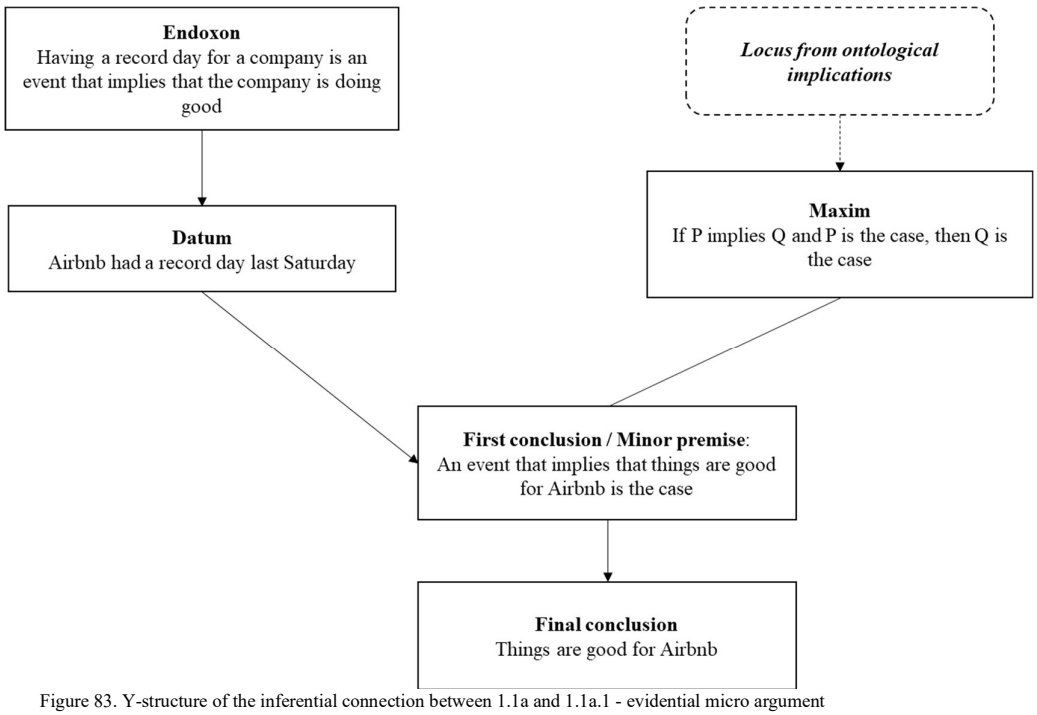


Figure 83. Y-structure of the inferential connection between 1.1a and 1.1a.1 - evidential micro argument

We now see why it is possible, in this case, to reconstruct the operative inference, whereas this was not possible in examples (168), (169) and (170). As suggested above, my hypothesis is that example (171) differs from the others because the source of the inference functions as an effective premise for the scope-conclusion and its propositional content can be explicitly reconstructed. In (171), the event-source "*record day*" can be reformulated as a full proposition ("*Airbnb had a record day*"), supported by the co-text ("[*you mentioned*] *having this record day*" within the hearsay frame). By contrast, in (168)-(170), such a reconstruction is not possible. In both cases, the source is the company's first-quarter results ("*As you could see from* [*the first quarter*]*, this business is actually doing very well with high returns*"; "[*The Q1 results*] *demonstrate that the guests' trend is a travel rebound that is starting and is unlike anything they have ever seen before*"), but it remains unclear what these results specifically are and how they support the scope-conclusion. In other words, it is impossible to reconstruct a full proposition that could serve as a premise supporting the standpoint.

From this perspective, the argumentative functioning of the frame in (171) resembles that of inferential frames used in conclusions. In such cases, speakers not only signal an inference but also make explicit their inferential pathway toward the conclusion. They reveal the reasoning process that led them to their standpoint, thereby justifying it. The inferential construction thus acts as a placeholder for the inference: it signals the reasoning, but since the reasoning is also explicitly represented, it can be omitted in the reconstruction. Conversely, when the source is not fully propositional, as in examples (168)-(170), a complete reconstruction of the premise supporting the conclusion is not possible. Consequently, the entire inferential and argumentative path cannot be recovered. In these cases, the function of the inferential frame is slightly different. On the one hand, it does not merely point to an inference but *constitutes* the argument itself, building it through a recognizable inferential procedure; on the other hand, it does not represent the entire inferential process, but rather suggests that such a process exists and took place – and that can be recovered by the interlocutor. The argumentative functioning of the inferential frame in these cases exploits the intersubjectivity inherent in inferentials: the inferential path and its underlying premises remain implicit, treated as intersubjectively shared knowledge that the interlocutor can reconstruct independently. In contrast, when the source can be expressed propositionally and the inference is fully manifest,

intersubjectivity operates differently: the speaker explicitly reveals the reasoning process, thereby making it accessible and verifiable to the interlocutor.

What we observed for the first three examples is even more evident in cases where the inferential frame does not have a source. This latter case is exemplified by examples (172)-(172) below.

(172) Roger Read (analyst; Wells Fargo Securities) Just to jump in, Jessica, on the $65 billion, ***it sounds like*** you're *probably* going to exceed reducing debt by more than the $65 billion target. [Five years out, significantly less than $65 billion? Or you think that's the right sort of net debt level to think about the company overall?] (SHEL_Q1_21

The analyst introduces his question with a preface in which he presents an inference: "***it sounds like*** *you're* ***probably*** *going to exceed reducing debt by more than the $65 billion target*". The adverb *probably* reinforces the epistemic qualification of the proposition as something the speaker considers likely to happen. However, in this instance, the source of the inference is not specified: the analyst does not explicitly identify the information on which the inference is based but instead refers in a vague and general manner to the managers' prior discourse. We can thus reconstruct a generic inferential process based on the managers' discourse, reconstructing the evidential inference, without fully reconstructing the operative inference as it is not possible to reconstruct which piece of information allows to reach the conclusion.

The reconstruction of the argumentative structure is displayed below.

[Five years out, significantly less than $65 billion? Or you think that's the right sort of net debt level to think about the company overall?]
(1. Shell is probably going to exceed reducing debt by more than the target)
1.1 On the $65 billion, ***it sounds like*** Shell is probably going to exceed reducing debt by more than the $65 billion target.

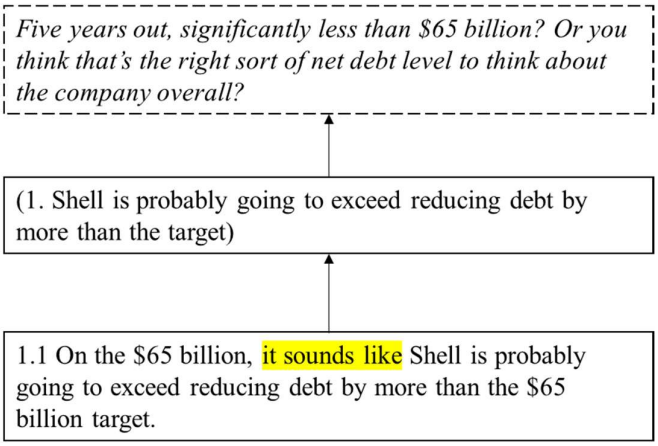


Figure 85. Argumentative structure of example (172)

The Y-structure in Fig. 87 reconstructs the evidential inference supporting the proposition-scope as conclusion.

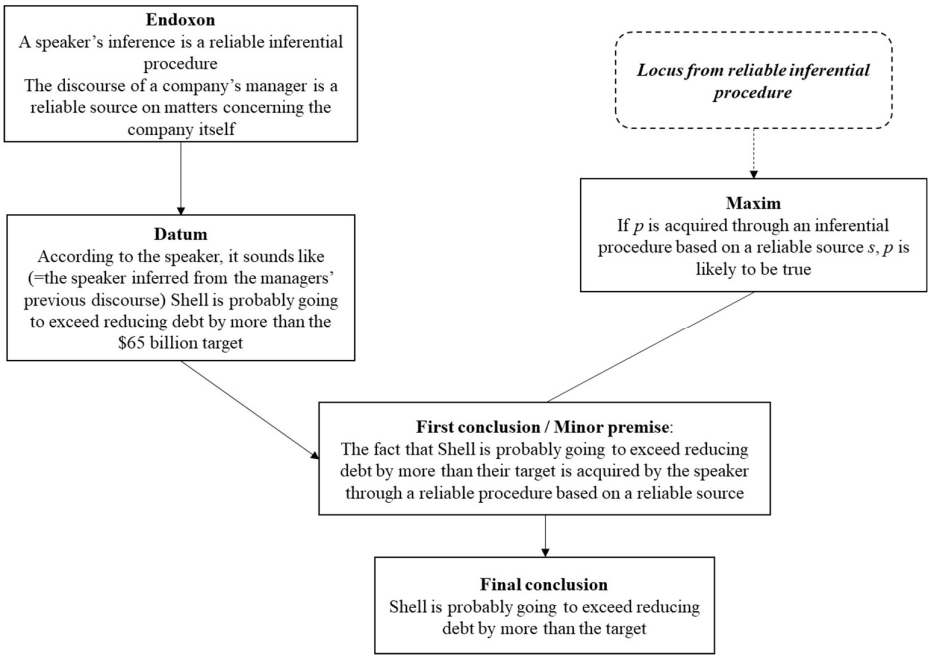


Figure 84. Y-structure of the inferential connection between 1.1 and 1 - evidential micro argument

The fact that the speaker inferred the proposition-scope – which functions as a premise and is analysed as datum – is not explicitly asserted but is presupposed through the use of the inferential marker. As the warranting endoxon, we can identify the classical endoxon associated with this locus, which classifies the inference as a reliable procedure. In this context, the premise-source for the inference is the previous managers' discourse, which

is anaphorically referenced, as discussed above. The source's nature is included in the endoxon, as it is part of the inferential procedure – and its characterization as reliable.

A similar instance is represented by (173):

(173) Kian Abouhossein (analyst; J.P. Morgan) [The second question is related to, if I can come back to risk, where are you on reviewing the total risk book of the firm, of the Group? And in that context, when are we going to expect a new head of compliance and risk officer?] ***I assume*** they will be two separate positions, [if you can confirm that, and will they be coming from the outside.] CS_Q1_21

The speaker-analyst presents an inference (evoked by the frame "*I assume they will be two separate positions*"), without explicitly referring to a premise; however, we can suppose that the conclusion that *they will be two separate positions*, meaning that two different people will be hired, is based on the fact that *head of compliance* and *risk officer* usually are indeed two separate positions.

The analyst's assumption works as a ReInf argument aimed at justifying the assertion that the two positions will be separate.

When are we going to expect a new head of compliance and risk officer? Can you confirm that there will be two separate positions? Will they be coming from the outside?
(1. It is likely that the positions of head of compliance and risk officer will possibly be two separate positions.)
1.1 The analyst assumes that the positions of head of compliance and risk officer will be two separate positions.

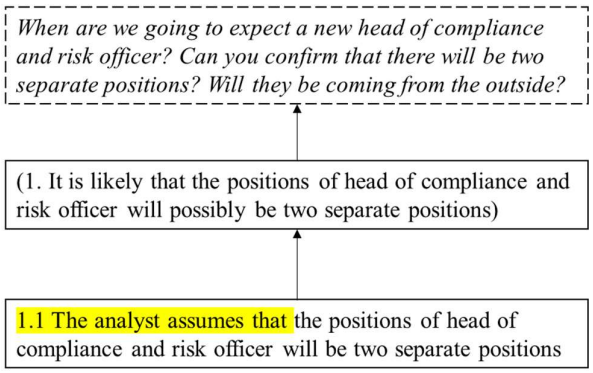


Figure 86. Argumentative structure of example (173)

As seen above for (172), since we cannot reconstruct the premise-source and thus the operative inference, it is only possible to reconstruct the ReInf argument, assuming the presupposed facts that the inference took place and that there was a reason behind, a ground for it, as premises.

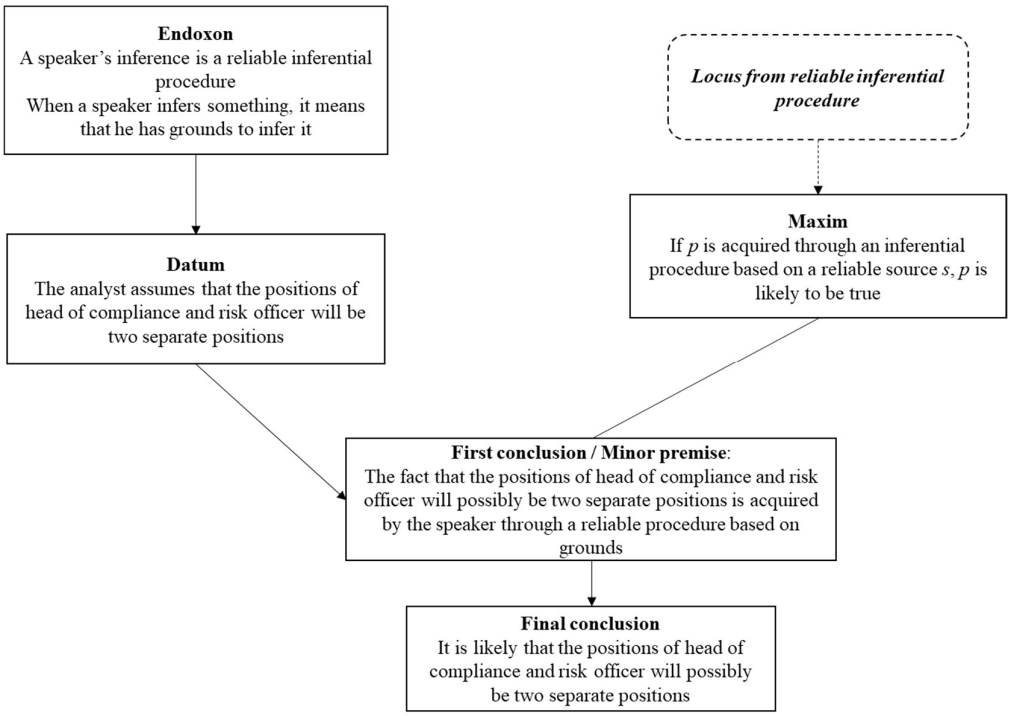


Figure 87. Y-structure of the inferential connection between 1.1 and 1 - evidential micro argument

Examples (172) and (173) are both taken from analysts' turns; indeed, the majority of such instances – inferential frames in premises without an explicit source – are found primarily in analysts' prefaces. However, a few examples of this construction also occur in managers' turns, as shown in (174).

(174) Dave Stephenson (corporate; CFO) [Just to step back, remember that in 2019, kind of before the pandemic, we shifted our marketing strategy to be more brand-driven and even less dependent on search engine marketing.] And so, we made that shift and ***it kind of was proven*** to be the right shift to be made not only in 2019, but ***obviously*** in 2020 and 2021. (ABNB_Q4_21)

In (174), the CFO of Airbnb justifies a *marketing shift* as the *right shift* by representing it as the conclusion inferred through a reasoning; by using the expression *to be proven* he shows a high degree of certainty. The adverb *obviously* works as high-certainty inferential as well, reinforcing the construction.

Also in this case, the source is not explicated in the text, so it is not possible to reconstruct *how* the fact that *the marketing strategy shift made by Airbnb in 2019 was the right shift not only in 2019 but also in 2020 and in 2021* was proven and why it is obvious. I claim that part of the argumentative strength of this strategy derives exactly from this implicitness: the proposition is backed by the inference itself – the speaker is saying that

the conclusion can be accepted because it was obtained through a reliable inferential procedure – but the inference is backgrounded and the source is not disclosed, preventing the interlocutor from questioning or attacking it.

We can now reconstruct the argumentative structure of the passage.

(1. The marketing strategy shift made by Airbnb in 2019 was the right shift not only in 2019 but also in 2020 and in 2021)
1.1a The marketing strategy shift made by Airbnb in 2019 proved to be the right shift in 2019
1.1b The marketing strategy shift made by Airbnb in 2019 it is obvious to be the right shift in 2020 and in 2021

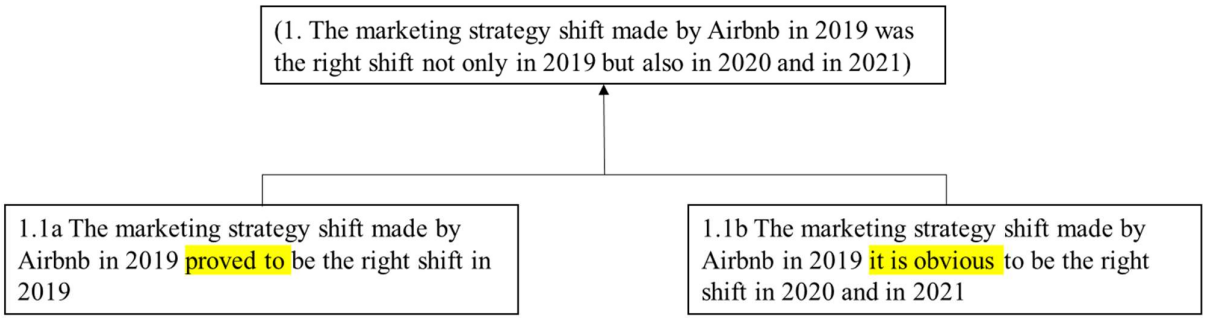


Figure 88. Argumentative structure of example (174)

Once again, it is possible to reconstruct the ReInf argument that supports the embedded conclusion.

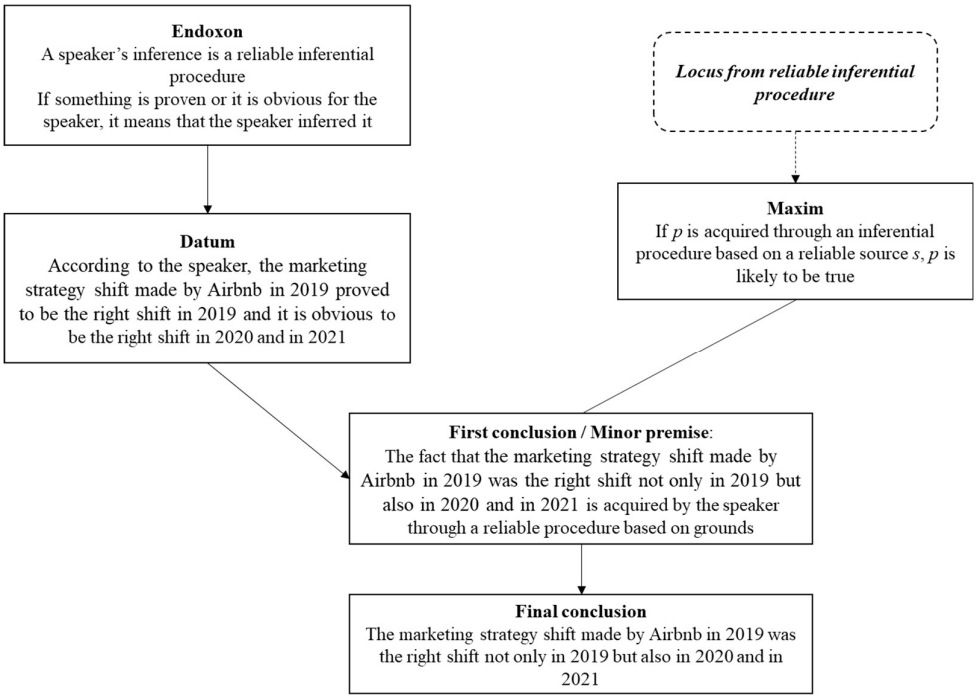


Figure 89. Y-structure of the inferential connection between 1.1a and 1.1b and 1 - evidential micro argument

We can now conclude this section by summarizing and drawing some final considerations from the analysis. First, we observed that inferentials may occur both in conclusions (final or intermediate) and in premises. When they appear in conclusions, inferentials serve to indicate the inference itself and, as the operative argument is fully explicit and it is thus possible to reconstruct it, the ReInf argument is resolved and therefore unnecessary. As shown above, when speakers use inferentials in conclusions, they make explicit their inferential pathway toward the standpoint, representing the reasoning process that led them to it and signalling this process through the inferential frame. For this reason, the inferential operator can be deleted: the inferential construction itself functions as a placeholder for the inference, signalling the reasoning, but since the reasoning is explicitly represented, the operator becomes redundant in reconstruction.

Conversely, when inferentials occur in premises, three main cases can be distinguished: i) the source of the inferential frame is textually explicit and its full propositional content can be recovered, as in (171); ii) the source is textually explicit but expressed as a noun phrase that cannot be reconstructed as propositional content, as in (168)-(170); iii) the source of the inferential frame is left entirely implicit, as in (172)-(174). In the first case, the inferential frame functions similarly to instances found in conclusions: the operative inference that supports the conclusion can be reconstructed, and the ReInf argument is resolved. In the latter cases, in contrast, it is not possible to recover the premise supporting the inference, nor to reconstruct the full inferential and argumentative path. In this sense, the inferential frame works as a ReInf argument that justifies the conclusion.

As discussed in §3.5.1.1, inferential evidentials function as phoric connectives, linking discursive units, and as predicates that impose constraints on the argument they select. In particular, when the set of premises presupposed by the inferential evidential is left implicit, the interlocutor is prompted to supply them by drawing on the conversational background. In cases where no fully explicit premise is provided but a noun-phrase source is present, this can be interpreted as guiding the identification of the type of premise that is missing. In other words, the noun-phrase source provides an indication of the kind of information that is expected to fill the argument slot, thereby facilitating the recovery of the presupposed premise. For instance, in example (15), in the sentence *the Q1 results kind of demonstrate this*, the noun phrase *the Q1 results* is not sufficient to saturate the argument position on its own, but it directs the interlocutor toward retrieving an

appropriate piece of information about the Q1 results that can serve as a premise for the conclusion.

As a last observation, we can say that in cases as the ones analysed here, the strength and validity of the argument depend on the reliability of the evoked inference. Since the source is left implicit or only mentioned through a noun phrase, the interlocutor may challenge the argument by questioning the reliability of the inference or the acceptability of its source. This can give rise to a counterargument or, more likely, a critical question concerning the arguer's grounds. As noted in §8.2.2, a similar consideration applies to hearsay arguments: the credibility of the conclusion depends not only on the reliability of the knowledge-acquisition procedure, but also, and crucially, on the reliability of the source, that is, the quoted person in the case of hearsay and the evidence-premise in the case of inferentials.

8.2.4. Common knowledge

As shown in Tables 46 and 47, common-knowledge markers appear to be strongly associated with argumentative moves (80%), and all identified argumentative instances (100%) occur within premises. This finding is consistent with the discussion by van Eemeren et al. (2007), who regard expressions that suggest a proposition is generally accepted, irrefutable, or obvious as indicators that the premise has been accepted – or, at the very least, is treated as such by the arguer (see §2.4.1.4). Given that only five cases of common knowledge were annotated in the present study, the sample size is too limited to allow for generalization. Nevertheless, these occurrences can still be examined in detail to gain preliminary insights and to formulate hypotheses regarding the potential argumentative functions of common knowledge within the dataset.

The first point to note is that when a speaker presents a piece of information as common knowledge, it is framed as a shared proposition, which is presumed to be accessible to all interlocutors. As emphasized in Chapter 2, a reasonable argumentative procedure necessarily begins with shared premises. Often, such premises are not explicitly asserted but rather presupposed or proposed. As discussed in §§2.1 and 2.4.2, Aristotle considered premises to be akin to questions, insofar as the arguer invites the interlocutor "to accept a proposition that is supposedly shared" (Greco and Rigotti, 2019:9). Within Pragma-Dialectical theory, during the opening stage arguers must establish a common ground by determining which elements of background knowledge can be legitimately employed as

premises. In this sense, introducing a proposition into the discussion and framing it as common knowledge responds to a fundamental requirement of the argumentative procedure. Also, if something is recognized as part of the common ground and thus shared among the participants, it does not need to be justified. On the other hand, arguers may also fallaciously attempt to employ starting points that are not genuinely shared, falsely presenting them as common: "[b]y falsely presenting something as a common starting point, the protagonist tries to evade the burden of proof" (van Eemeren, 2018:63). As Godden (2008:102) observes, "[c]ommon knowledge claims are generally effective starting places for persuasive argumentation, provide a vast store of generally acceptable premises, and are generally good candidates for supplying unexpressed premises in argument reconstruction". Nonetheless, he argues that the fact that a claim is accepted by the arguer and considered to be common knowledge, although a good reason for treating it as a starting point in argumentation, is not in itself a valid reason for accepting the claim: "common knowledge is a mark of prior acceptance, not of acceptability" (Godden 2008:124). Appeals to common knowledge can, in some cases, be analogous to *ad populum* arguments, which may at times be fallacious.[128] Common knowledge frames characterize the subordinated propositions as accepted by the speaker and as something that ought to be accepted by the audience, but it does not necessarily render them acceptable, as Godden argues. Therefore, they can be interpreted in two ways: as legitimate attempts to clarify that a proposition is indeed shared and can serve as a valid common starting point for argumentation, or as strategic – and potentially fallacious – attempts to pass off non-shared propositions as shared.

Analysing examples from the data, I will now try to determine whether common knowledge frames can be reconstructed as inconspicuous arguments supporting the truth of the subordinate proposition, in such a way that it is considered as a valid starting point.

(175) Thomas Gottstein (corporate; Group Chief Executive Officer) If you look at Page 18, you see that year-to-date, we are up 82%, but ***it is also a fact that*** we lost CHF5 billion to one client in the Investment Bank. And this is not the year where Credit Suisse will be paying as high as you would maybe see in other firms at the moment. So we are clearly not the high payer of the street, if we want. (CS_Q2_21)

[128] Whether an appeal to common knowledge should be always considered fallacious is still a debated issue, one that I am not tackling in this dissertation. For a discussion on this topic, see Godden (2008), Jansen (2018) and Herman and Oswald (2021).

In example (175), the Credit Suisse CEO asserts that *Credit Suisse lost CHF5 billion to one client in the Investment Bank* and frames it as a shared piece of information, representing it as a *fact* ("*it is a fact that*"). By recurring to common knowledge, the speaker represents the information as part of a stable knowledge – both individual and collective (Miecznikowski, 2022). Asserting that this information *it is a fact* frames it as non-disputable, shared premise, which is in fact employed to justify the superordinate standpoint (1), as shown in the argumentative reconstruction.

In the argumentative structure below, I also reconstruct the second line of argumentation advanced by the speaker, which is a concession counterargued by 1; 2 could count as an argument for an implicit, higher standpoint like "Credit Suisse is doing good" while 1 could be analysed as supporting the opposite implicit standpoint.

As the main point is the argumentation in 1, and as I focus on the role of the evidential frame in this argumentation, in the structure below (Fig. 91) I only reconstruct the first line of argumentation.

1. Credit Suisse is not the high payer of the street
    1.1a ***It is a fact that*** Credit Suisse lost CHF5 billion to one client in the Investment Bank
    1.1b This is not the year where Credit Suisse will be paying as high as you would see in other firms at the moment

2. Credit Suisse is up 82%
    2.1 If you look at Page 18, you see that year-to-date

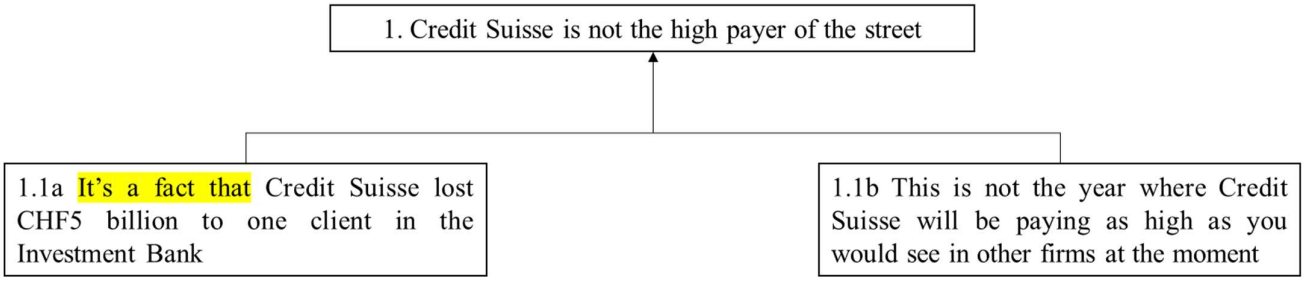


Figure 90. Argumentative structure of example (175)

If we try to reconstruct the evidential frame as a subordinate argument, as shown in Fig. 92, it emerges that it can be reconstructed as a micro ancillary argument that supports the acceptability of the subordinate proposition (1.1a).

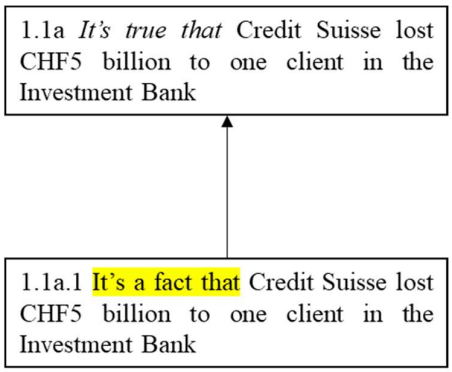


Figure 92. Reconstruction of the evidential argument 1.1a.1 supporting 1.1a

At this point, it is possible to reconstruct the configuration of the inference connecting the premise and the conclusion:

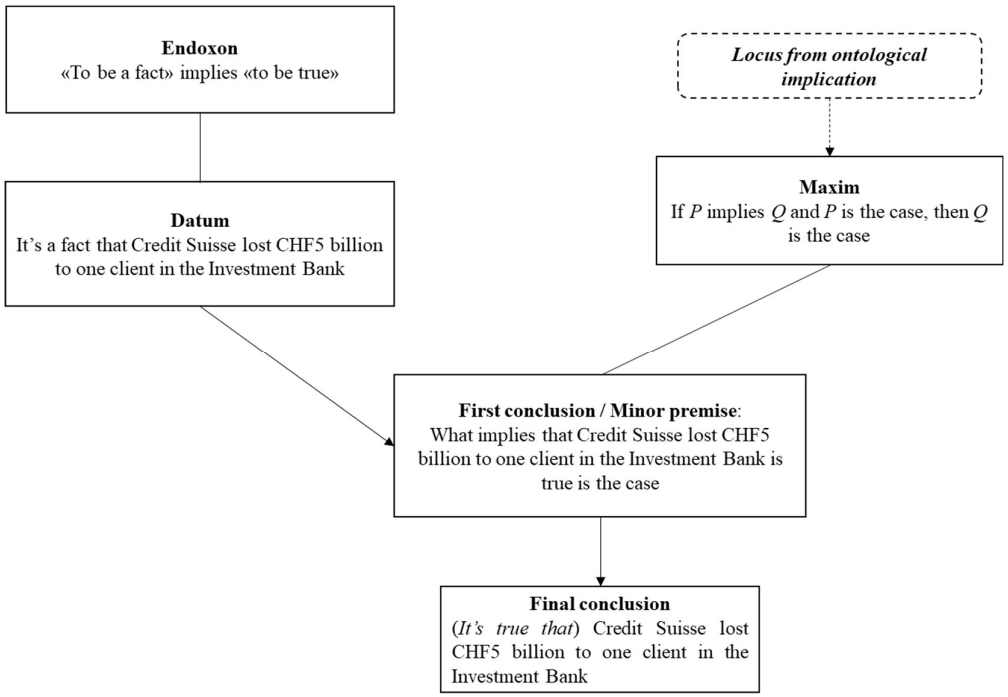


Figure 91. Y-structure of the inferential connection between 1.1a.1 and 1.1a – evidential micro argument

I analysed this instance as an appeal to the definitional locus from ontological implications, which allows one to classify the proposition as true on the basis of its being defined as a fact. Interestingly, in this case the common-knowledge frame characterizes the information as shared only indirectly: by presenting it as a fact, the speaker implies that it is publicly accessible and therefore part of a shared body of knowledge. The

sharedness of the fact that Credit Suisse has lost 5 billion francs derives from its status as publicly available information, which is "in the public eye". As Godden argues, however, such a representation of a proposition does not necessarily constitute a genuine justification; it does not make the proposition acceptable but rather indicates that it is accepted by the speaker and signals to interlocutors that they, too, should accept it, suggesting that no further inquiry is needed. Evidently, this instance cannot be considered an appeal to popular opinion, as the content in question is not an opinion. In this sense, framing the information as a shared fact most likely serves the function of recalling it for the interlocutor, as suggested by Herman and Oswald (2021). Although I reconstructed the common-knowledge frame as a micro-argument, adopting a maximally argumentative perspective (see §2.5.1), I claim that its primary function is rhetorical – namely, to recall and reactivate the information for the interlocutor – and that it cannot, in itself, be regarded as a sufficient argument to justify the truth of *p*. Indeed, it also discourages the antagonists from challenging *p*, inviting them to verifying its truth, namely verifying if really *p* is a fact.

Another possible case is represented by the argument in (176)

(176) Jon Rigby (analyst; UBS) The second question is just to go back to the points that you made about the buyback and the trajectory toward it. I don't expect you to sort of fill in the gaps, but I think the points that you make are right, you know, is that although cash flow was very strong in the quarter, there's actually quite some weak spots in it as well sort of from a macro perspective. As we stand here right now, you'd probably guess that 2Q macro is going to be better, not worse. And obviously, there's some moving parts around working capital, as I said, that you could expect. But on a previous call of one of your peers, the peer CFO said that the management within the organization are very incentivized around working capital. And it would seem to me that a reasonable person could make a projection over 2Q and come to a point where working capital could easily be the balancing point between whether you hit 65 or not. And I think ***common consent would say*** that one of the issues on your shares is the free cash flow yield is not being represented in the market because your dividend yield is so -- or your dividend payer. So what I'm trying to get is a measure, a metric, or an acknowledgment that some of the achievement of that 65 is within your own control and how incentivized you are to hit that number? Because fairly clearly, I think it would add value to the business if you were in the market buying back stock. (SHEL_Q1_21)

In the long preface that precedes his question, analyst Jon Rigby presents a series of facts and evaluations meant to support his final standpoint that *Shell should actively manage working capital and incentivize management to do so* and justifies the question on whether the company is doing it or not. The argumentative structure is reconstructed below.

So what I'm trying to get is a measure, a metric, or an acknowledgment that some of the achievement of that 65 is within your own control and how incentivized you are to hit that number?

(1. Shell should actively manage working capital and incentivize management to do so)

1.1a Shell needs to return to share buybacks to improve valuation (it would add value to the business if you were in the market buying back stock)

1.1a.1a Although cash flow was very strong in the quarter, there's actually quite some weak spots in it as well sort of from a macro perspective

1.1a.1b ***Common consent would say*** that Shell's problem with the shares is that the free cash flow yield is not being represented in the market because of the dividend (the market undervalues Shell because its strong free cash flow isn't visible through the dividend)

1.1b (Shell said that $65B net debt target is the precondition for buybacks)

1.1c Shell can reach the $65B target in 2Q if the working capital is well managed and incentivized (*a reasonable person could make a projection over 2Q and come to a point where working capital could easily be the balancing point between whether you hit 65 or not*)

1.1c.1a 2Q macro is going to be better, not worse

1.1c.1b There's some moving parts around working capital

1.1c.1c On a previous call of one of Shell's peers, the peer CFO said that the management within the organization are very incentivized around working capital

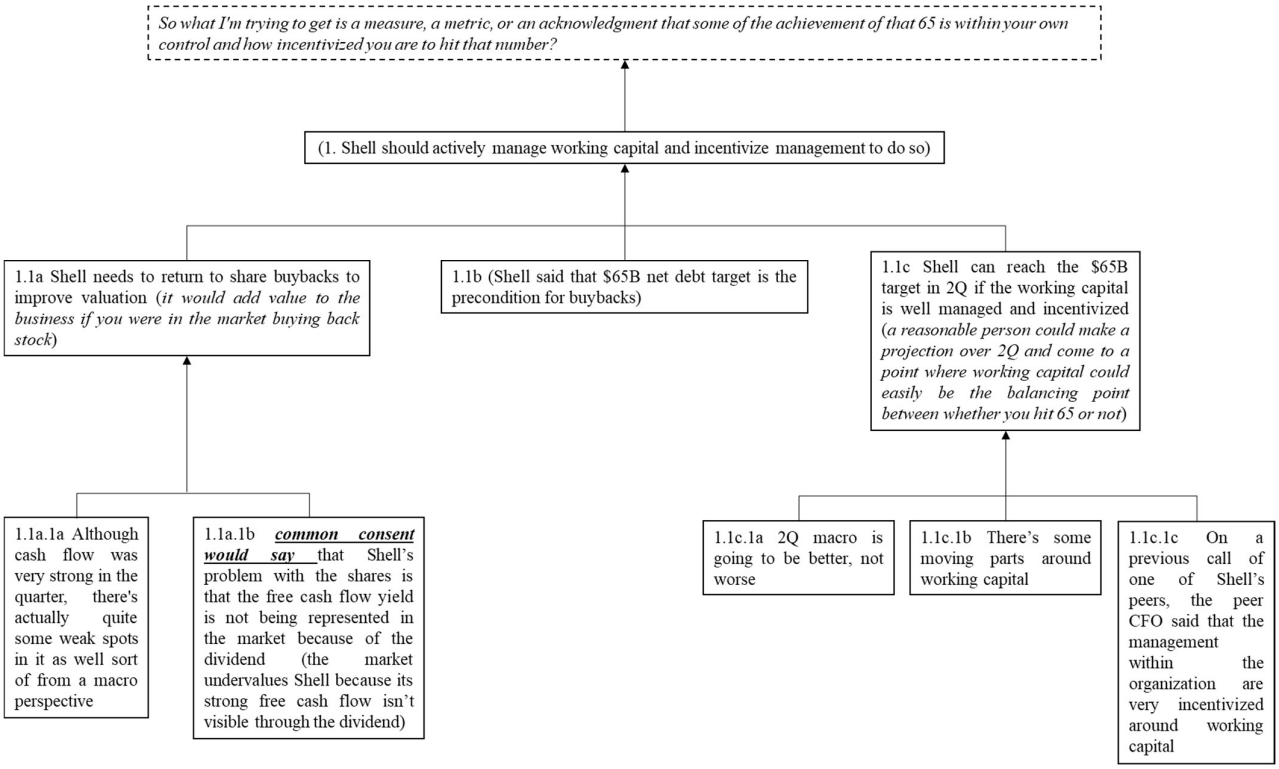


Figure 93. Argumentative structure of example (176)

Also in this case, focusing on the evidential frame, we can reconstruct it as a subordinate ancillary argument supporting the truth of 1.1a.1b:

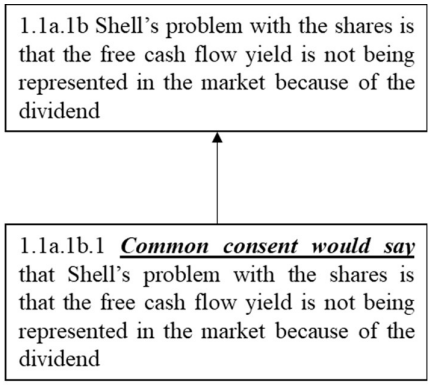


Figure 94. Reconstruction of the evidential argument 1.1a.1b.1 supporting 1.1a.1b

Reconstructing the Y-structure of this inference, it is possible to resort to the argument from authority in the variant of argument from common opinion.

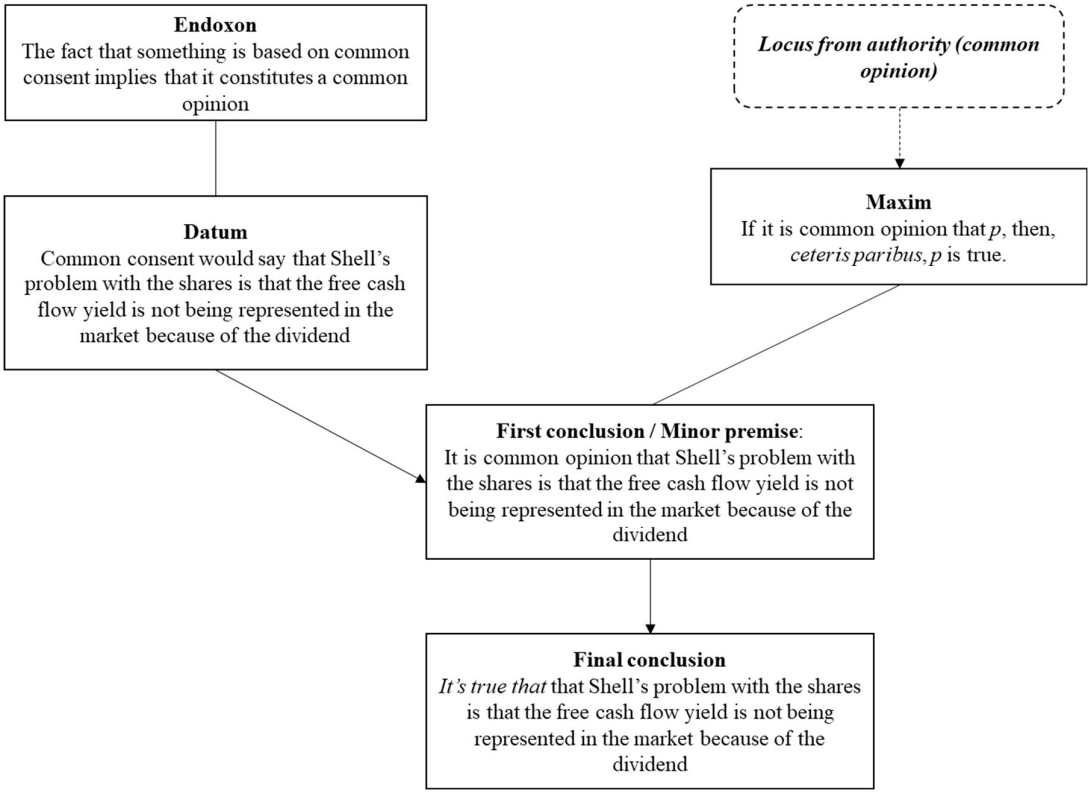


Figure 94. Y-structure of the inferential connection between 1.1a.1b.1 and 1.1a.1b – evidential micro argument

The appeal to common opinion can, in some cases, be considered an *ad populum* – and thus fallacious – form of argument. Such arguments have frequently been treated in the literature as fallacious insofar as they "fail to confer acceptability on claims" (Godden 2008: 105). According to Damer (1987: 124), this fallacy "consists in urging the acceptance of a position simply on the grounds that most or at least great numbers of people accept it", while for Woods, Irvine, and Walton (2004: 37) the problem with *ad populum* appeals is that they "clearly confuse popularity with truth". Herman and Oswald (2021:314) argue that when the defended proposition is an opinion, "the conclusion should not be 'P is true' but instead 'You should accept P'." In their view, states of affairs are evaluated in terms of *true/false*, whereas opinions are evaluated in terms of *agreement/disagreement*. In a sense, this reframing appears to address the "confusion" between truth and popularity: something's being widely shared within a community or culture does not entail its truth, but it may constitute a reason to accept it in order to align oneself with the majority. Nonetheless, from a dialectical perspective, even if we reconstruct the conclusion as "You should accept *p*", the rhetorical strength of the appeal does not render an argument from common opinion a valid one.

In the case at hand, the defended proposition is an evaluative judgment concerning Shell's share price – specifically, the speaker's interpretation of it – which is presented as though it were a commonly shared opinion (*common consent*). The argument presupposes that members of the relevant community ought to agree that Shell's shares are undervalued. Yet this is evidently not the case: the very fact that the shares are described as "undervalued" implies that the market price does not reflect their purported real value – according to the analyst. Were there truly a common opinion regarding their value, they would not be undervalued. Thus, the claim that Shell's shares are undervalued is precisely what is at issue and cannot genuinely be treated as shared knowledge, even if, in the analyst's view, it *should* be. Notably, the conditional form of the common-consent evidential ("*common consent would say*") suggests that the opinion is not actually shared but rather represents the speaker's interpretation of what, in his view, ought to be a common evaluation. Furthermore, the proposition that Shell's shares are undervalued appears as the complement of the phrase "*the problem is that*" and is therefore presupposed. This strengthens the speaker's attempt to present it as accepted and undisputable.

As Godden (2008:125) observes, although an appeal to popular opinion "implicitly asserts that there are good grounds for accepting the conclusion, it does not make explicit what those grounds are. Instead, the common knowledge appeal seems to act as a kind of proxy for other, actual, preexisting grounds that are not widely known or are no longer available to the arguer. Yet, if the conclusion is genuinely at issue, then it is precisely those grounds that are required in order to settle the matter of acceptability". In other words, the analyst implies that there are reasons to believe that Shell's shares are undervalued – and therefore that this evaluation ought to be commonly endorsed – but does not actually supply evidence in support of this claim. Although one can reconstruct an inferential relation in which the common knowledge frame provides justification for the presupposed proposition, I consider this argument defeasible and partially fallacious, insofar as it attempts to treat a contested proposition as an accepted and shared starting point.

In sum, it appears that common-knowledge frames are compatible with two types of loci: on the one hand, definitional loci, which are invoked to characterize the proposition as genuinely constituting shared knowledge; and on the other, authority loci, in which authority is represented by collective knowledge itself – that is, by common opinion. I concur with Herman and Oswald (2021), who argue that determining whether a common-

knowledge argument (or a common-knowledge frame) is used fallaciously requires analysing the specific instance in its pragmatic context. *Ad populum* arguments, or arguments from common opinion, cannot be deemed inherently fallacious or unacceptable; rather, their validity depends on their particular uses and argumentative constructions.

8.2.5. Subjective evidentiality

Markers of subjective evidentiality in the data appear more often than not in argumentative moves (59% of the total occurrences), and although their relative frequency suggests that they are found more frequently in premises than in conclusions (60% vs 40%, combining final and intermediate conclusions), the results of the Chi-squared test in Table 47 (§8.1) show that they are statistically associated with conclusions.

Van Eemeren et al. (2007a) analyse expressions such as *I think* and *I believe* as indicators of standpoints. In their view, the use of these verbs in a sense violates the Gricean maxim of quantity: when speakers assert that *they think A*, the fact that they *think* A – that is, that they are convinced that A is true – is already presupposed by the sincerity condition. This apparent violation is, as van Eemeren and colleagues note, justified by the need to avoid violating the maxim of quality, or the *justificatory commitment* (Searle and Vanderveken, 1985; Sbisà, 2014; see §3.5), which prohibits asserting something without adequate justification or proof. According to the Pragma-Dialecticians, when arguers say "*I think A*", they are signalling that they do not have strong evidence for A – a view that is consistent with my interpretation of subjective markers as "negative evidentials" – and, by implicature, they convey that the proposition is probably not accepted, thereby functioning as a (disputable) standpoint. The fact that claiming to think A indicates that the arguer lacks strong evidence for A does not, however, imply that the arguer is uncertain about it (otherwise it would not qualify as a standpoint). On the contrary, it suggests that the arguer is convinced of A and has reasons to believe it – reasons that do not amount to hard proof and are not assumed to be commonly shared. In this sense, A is something about which the speaker is (almost) sure: it is a conviction, but one that remains at issue. This explains why, although the arguer may be said not to have solid evidence in favour of A, she nonetheless argues for it. Evidently, there would be no reason to argue for A if it was not an opinion held by the speaker that could be rejected by someone else, as it would not make sense to justify a proposition that is already accepted (see infra, p. 7, §2.1).

This, I claim, is also the reason why we do not find (or at least not frequently) common-knowledge indicators in conclusions.

Let us now consider some examples of subjective frames employed in conclusions.

(177) Jessica Uhl (corporate; Chief Financial Officer) In the last 90 days, we've announced some $10 billion of incremental distributions to our shareholders, if you consider the dividend, the share buybacks, and then the proceeds that we're going to distribute out of Permian. So ***feeling*** we're in a good place in terms of returning cash to our shareholders through various forms of distribution.(SHEL_Q3_21)

The subjective expression (*we are*) *feeling* characterizes the subordinated proposition in the scope as something that Shell's management thinks (properly, they *feel* it): the evaluation that *Shell is in a good place in terms of returning cash* it is a sort of personal belief that they have no hard evidence for (or that they represent as not having). They justify this "sensation" by invoking a premise – the fact that they *are placing some $10 billion of incremental distributions to the shareholders*.

1. Shell is [***feeling*** to be] in a good place in terms of returning cash to their shareholders through various forms of distribution
    1.1 Shell is placing some $10 billion of incremental distributions to the shareholders, considering the dividend, the share buybacks, and then the proceeds that Shell is going to distribute out of Permian.
        1.1.1 In the last 90 days, Shell has announced some $10 billion of incremental distributions to the shareholders, considering the dividend, the share buybacks, and then the proceeds that Shell is going to distribute out of Permian.

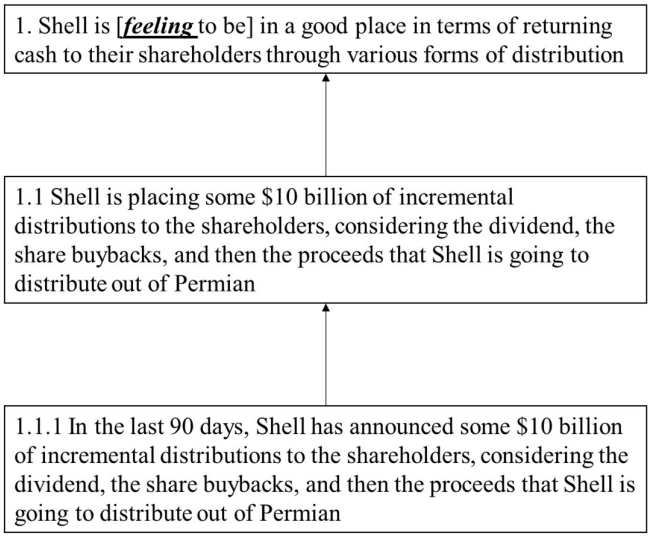


Figure 95. Argumentative structure of example (177)

In example (178), Shell's CEO presents an argumentation justifying his belief that *if you take a risk-adjusted approach that we have competition going on for capital, it is*

actually a level playing field, which means that oil upstream projects can be considered on the same level as others when it comes to risks and therefore in terms of competition for investments.

(178) Ben Van Beurden (corporate; Chief Executive Officer) So in other words, we have to deal with dry holes, we have to deal with the fact that projects sometimes can disappoint because of the subsurface being disappointing. And many a time, of course, the investment decision that you take in an Upstream project, you make after a significant amount of cash has already been sunk in it. So, therefore, you have to look at full cycle economics here. And what we are sharing with you is the economics forward looking at the sanction decision. So, therefore, ***I do believe certainly*** that if you take a risk-adjusted approach that we have competition going on for capital, it is actually a level playing field. (SHEL_Q4_21)

The supporting argumentation can be reconstructed as follows.

1. (Ben van Beurden ***does believe certainly*** that) if you take a risk-adjusted approach that we have competition going on for capital, it is actually a level playing field. (Once risk is properly factored in, each type of project competes fairly for capital)
    1.1a (To understand returns properly) you have to look at the full economic life of the project and take into consideration the risks
    (1.1b Oil project have risks as well as other types of projects)
        1.1b.1a (In oil projects) Shell has to deal with dry holes, with the fact that projects sometimes can disappoint because of the subsurface being disappointing
        1.1b.1b Many a time the investment decision taken in an Upstream project, are made after a significant amount of cash has already been sunk in it

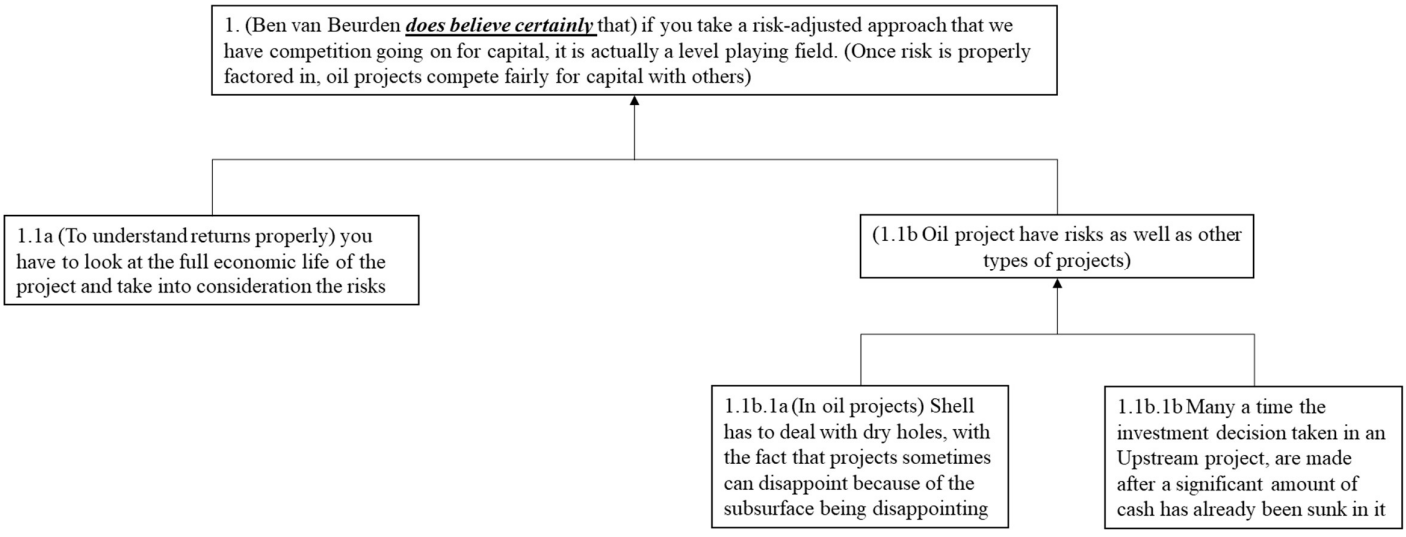


Figure 96. Argumentative structure of example (178)

Let us analyse the subjective frame in the conclusion in (179):

(179) Brian Chesky (corporate; Co-Founder and Chief Executive Officer) [We think most people come to Airbnb to book something unique, one-of-a-kind stay from an everyday host.] But we always want to make sure we never have any network gaps. We never want somebody come to Airbnb and leave having not found a place to stay. And so, ***we think*** hotels and property managers continue to be a very important part of our strategy. (ABNB_Q4_21)

As shown in the argumentative structure below, also in this case the subjective occurs in a sentence that has the function of final standpoint.

From these examples, it becomes evident that subjective operators, when they appear in conclusions, do not have an argumentative role per se. That is, they do not function as arguments or as indicators of inference themselves – this also explains the co-occurrence, in all the three examples, with inferential connectives as *so* and *therefore* (*So feeling we're in a good place; So, therefore, I do believe certainly; And so, we think hotels and property managers*...). Rather, they signal the status of the subordinated proposition as the speaker's opinion, which can therefore be assumed to constitute a standpoint. This, in turn, raises the question of what their function is when they occur in premises.

Let us consider again example (179), analysing the subjective frame in the first sentence:

1. [***Airbnb's management thinks that***] hotels and property managers continue to be a very important part of Airbnb's strategy.
    1.1b Airbnb always wants to make sure to never have any network gaps
        1.1b.1 Airbnb never wants somebody come to Airbnb and leave having not found a place to stay

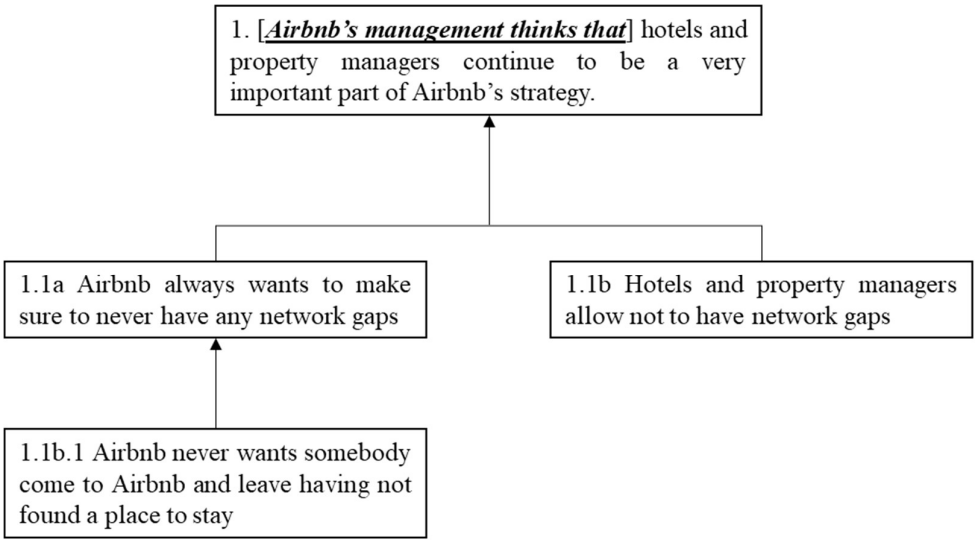


Figure 97. Argumentative structure of example (179)

(180) Brian Chesky (corporate; Co-Founder and Chief Executive Officer) ***We think*** most people come to Airbnb to book something unique, one-of-a-kind stay from an everyday host. [But we always want to make sure we never have any network gaps. We never want somebody come to Airbnb and leave having not found a place to stay. And so, we think hotels and property managers continue to be a very important part of our strategy.] (ABNB_Q4_21)

The subjective frame occurs in the premise that supports an implicit standpoint (1), which can be reconstructed as follows:

(1. The most important thing for Airbnb is the unique, one-of-a-kind stays from an everyday host)
1.1 [***Airbnb's management thinks that***] most people come to Airbnb to book something unique, one-of-a-kind stay from an everyday host

Indeed, the subordinated proposition – the fact that *most people come to Airbnb to book something unique, one-of-a-kind stay from an everyday host* – is put into contrast with the subsequent argumentation (analysed above), constructing a concessive and counter-argumentative structure. The implicit standpoint supported by the subjective premise – numbered as (2) in the below structure – is attacked by (1).

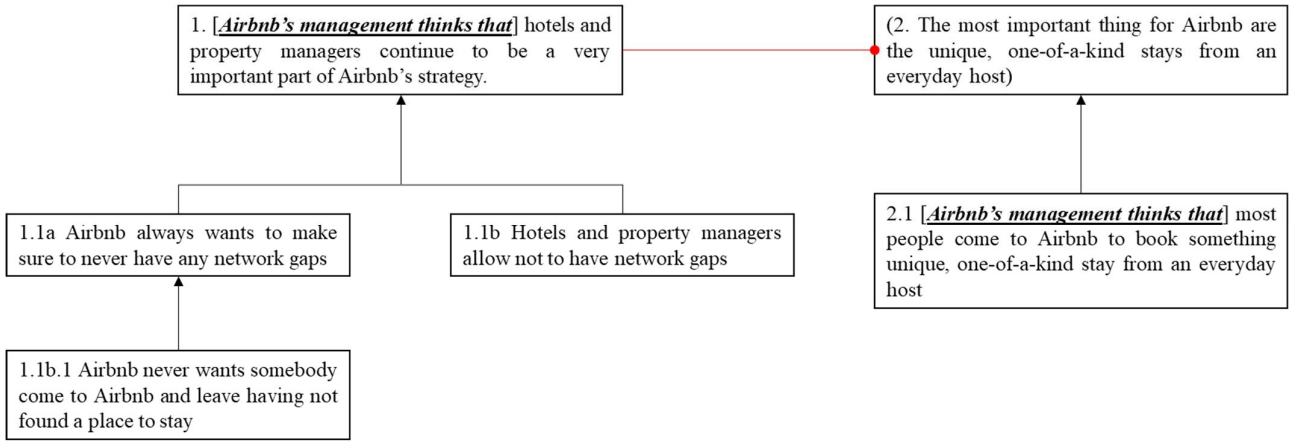


Figure 98. Argumentative structure of example (180)

What we observe is that the subjective frame occurs in a premise, which constitutes a counterexample to the Pragma-Dialectical assumption that such expressions indicate standpoints.

The question is whether, in a similar case, we can consider the subjective evidential frame as an ancillary or inconspicuous argument supporting the truth of the subordinated proposition. A first consideration we can make is that expressions of subjectivity as *I think*

p characterize *p* as an individual opinion of the speaker. Therefore, *p* is necessarily a non-shared proposition, which can in fact function as a standpoint and needs to be justified. Thus, if *p* is not justified, it could seem that the speaker is either evading the burden of proof or, if *p* is a premise for a subsequent standpoint, is using as a starting point something that is not shared. However, I claim that a subjective frame occurring in a premise can be analysed as an argument.

Let us reconstruct the frame in 2.1 as a subsequent argument supporting the embedded proposition. In this case, it would constitute the premise 2.1.1.

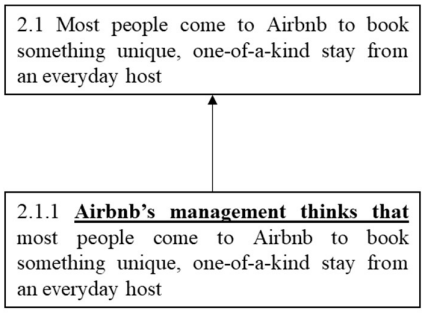


Figure 99. Reconstruction of the evidential argument 2.1.1 as supporting 2.1

The question is whether the fact that the speaker thinks *p* can function as an argument supporting *p*. If we reconstruct the inferential connection between the two, we can see that the subjective frame operates as an argument appealing to the locus from expert opinion. According to the maxim of this locus, an opinion can count as a valid premise when its holder is a relevant authority. In this particular case, the invoked authority corresponds to, or includes, the speaker, and the opinion is asserted rather than reported. Pilgram (2012; 2015), in her analysis of authority arguments employed by doctors in dialogues with patients, considers this type of argument similar to the argument from authority, referring to it as the *argument by authority*: "Instead of referring to an external source in an authority argument, a discussion party can also present himself as the authoritative source in this type of argumentation" (Pilgram 2015:36). I adopted this term in the reconstruction to indicate the use of this specific variant.

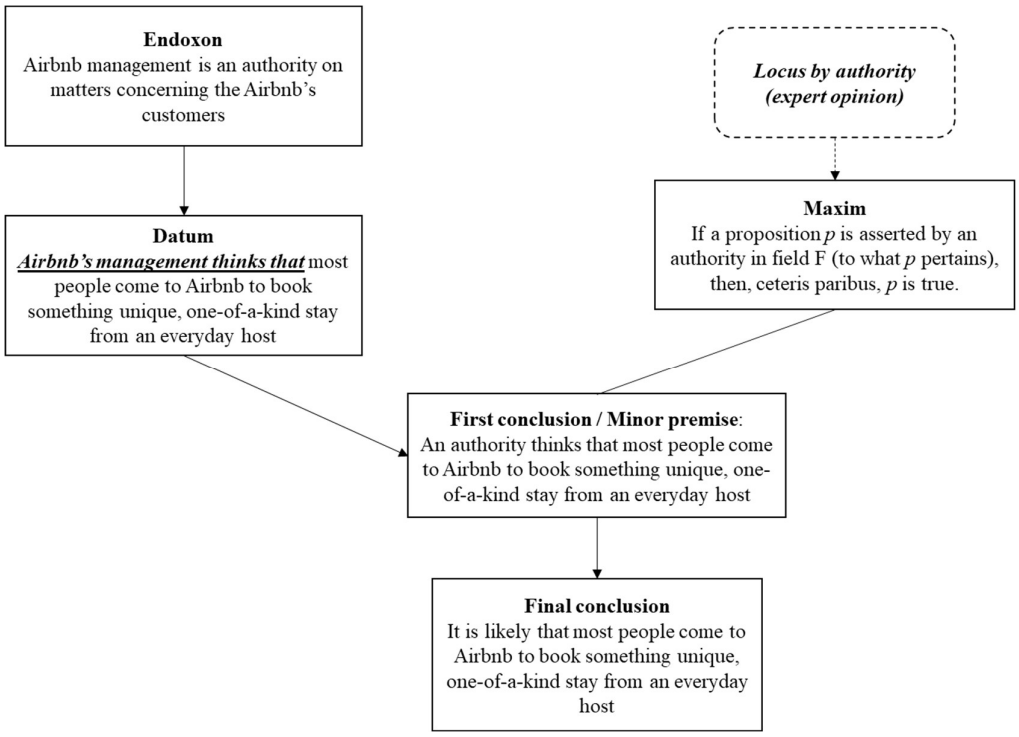


Figure 100. Y-structure of the inferential connection between 2.1.1 and 2.1 – evidential micro argument

This argumentative move can be further clarified through the notion of territories of knowledge (Kamio, 1997; see §3.4.1.1) and the related concepts of epistemic status and epistemic stance (§3.4.1.2). The proposition *p*, as framed by a subjective expression (*I think*), is grounded in the speaker's internal experience and thus falls within the speaker's epistemic territory, constituting a Type 1 knowable (Pomerantz, 1980). By invoking their own cognitive stance as a warrant, the speaker mobilizes this privileged access to construct epistemic authority. In Heritage's terms, the speaker displays a K+ epistemic status relative to the addressee, enacted through an epistemic stance that foregrounds personal assessment. At the same time, this move reflects a strategic positioning. By presenting *p* as a matter of personal judgment, the speaker claims epistemic primacy – that is, the right to advance and assess the proposition – on the basis that it belongs to their own domain of knowledge. This aligns with the observation that evidential markers can index "ownership" of information (Fox, 2001), thereby legitimizing the speaker's entitlement to make the claim. However, this form of authority remains inherently subjective and potentially contestable, as it relies on internal experience rather than externally verifiable expertise.

Examples (181) and (182) below represent this same construction.

(181) Brian Chesky (corporate; Co-Founder and Chief Executive Officer) [So those are the trends that we're seeing (people can travel anytime, length of stay is increasing and traveling and living are going to begin to blur together, people are now traveling everywhere).] The two trends ***I do think*** are going to inverse are -- we are going to see a recovery of urban travel and the recovery of cross-border. This has been our bread and butter before the pandemic, and I think those are significant tailwinds for us. (ABNB_Q1_21)

Again, we can reconstruct the frame as a further, lower argument (1.1a.1) appealing to the argument by authority which in this case is even clearer as the "quoted" authority, the cognizer, is the speaker himself.

1. Those are significant tailwinds for Airbnb.
   1.1a [***Brian Chesky, Airbnb's CEO, does think that***] there will be the recovery of urban travel and the recovery of cross-border travel
   1.1b Urban travel and cross-border have been Airbnb's bread and butter (core business) before the pandemic

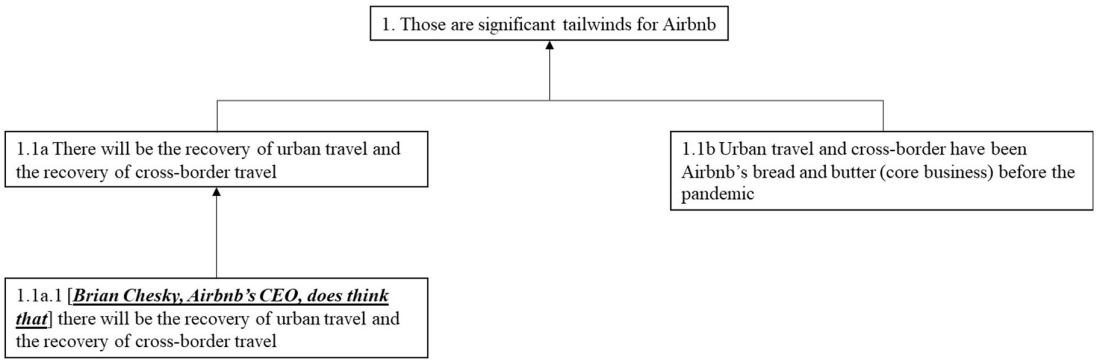


Figure 101. Argumentative structure of example (181)

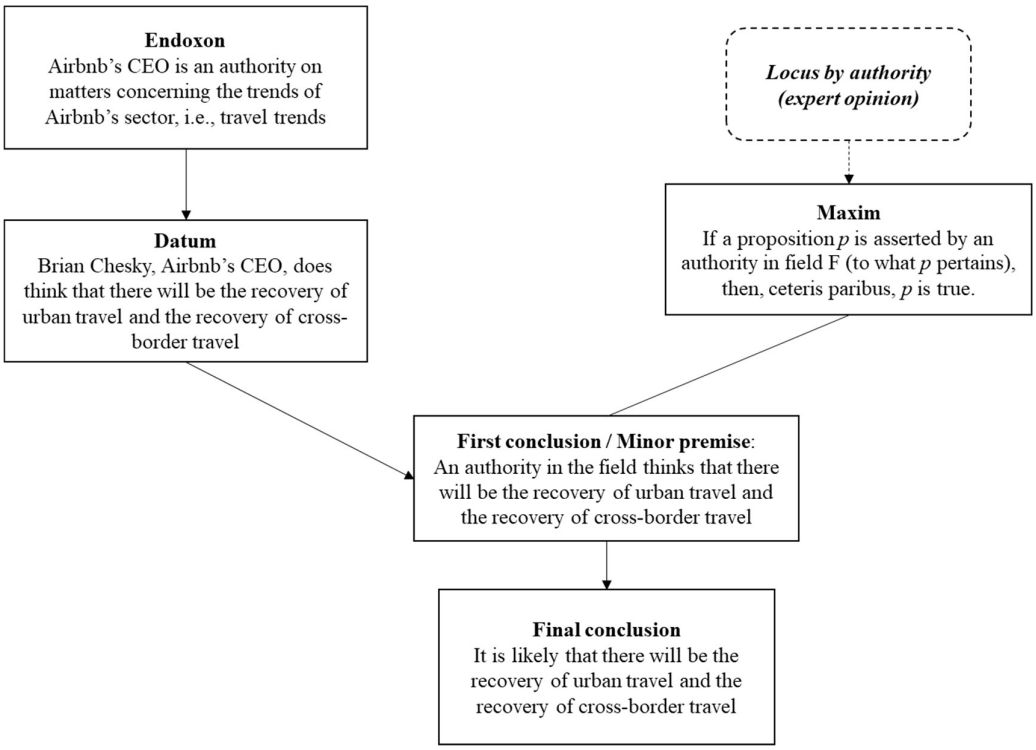


Figure 102. Y-structure of the inferential connection between 1.1a.1 and 1.1a. – evidential micro argument

Example (182) works in the same way.

(182) Ben Van Beurden (corporate; Chief Executive Officer) ***I still believe*** that our shares are undervalued, and therefore, it does make sense to return in the form of buybacks. (SHEL_Q4_21)

1. It does make sense for Shell to return in the form of buybacks
1.1 (***Ben Van Beurden, Shell's CEO, believes*** that) Shell's shares are undervalued

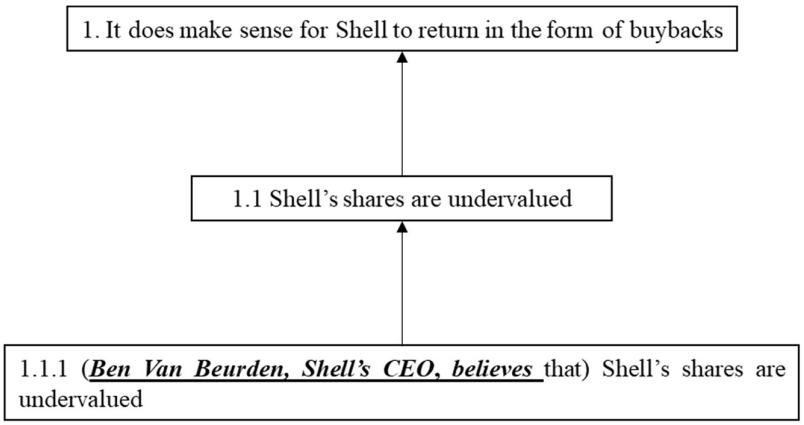


Figure 104. Argumentative structure of example (182)

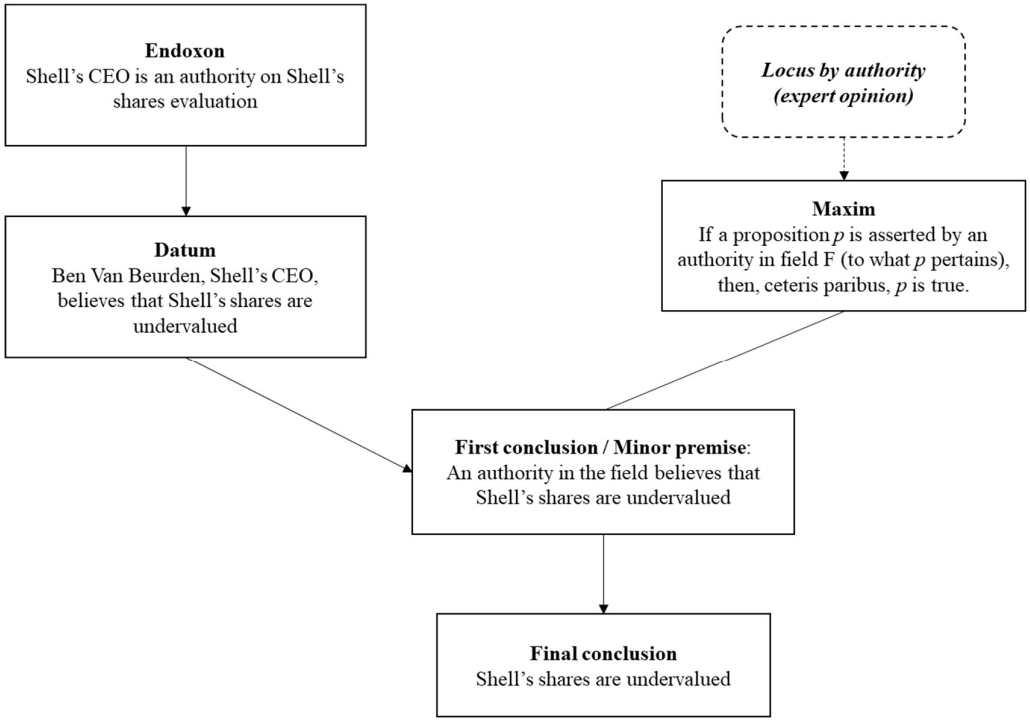


Figure 103. Y-structure of the inferential connection between 1.1.1 and 1.1 – evidential micro argument.

By appealing to the argument by authority, speakers implicate that they themselves are a relevant authority – an assumption that constitutes the major premise (endoxon) of the reasoning. In this sense, evaluating whether the argument is sound requires evaluating whether this endoxon holds, namely whether the speaker can legitimately be considered an authority.

On the other hand, the evaluation of this argument may also focus on the datum, raising the critical question of why and how the speaker-authority holds that belief. I claim that subjective frames have an additional function connected precisely to this aspect. As already discussed, subjective evidentials have a "negative" evidential function: they indicate that the knowledge source for *p* is the speaker's interiority and that no other evidence is available. In this sense, although speakers employ these expressions as an argument by authority, their authority can be questioned exactly because they cannot justify their knowledge of *p*.

In other words, stating *I think p* can, in principle, count as an argument by authority in which the speaker (*I*) is treated as a relevant authority, but insofar as no additional argument or knowledge source is provided that would allow the speaker to know *p*, this authority is open to challenge. By employing a subjective frame, speakers represent *p* as deriving from an internal intuition – evidently based on reasons that are, nonetheless, non-rational and non-explainable (see §3.3.2.2). Therefore, they effectively prevent the interlocutor–antagonist from asking further questions about why they think *p* – a potential critical question – and, in doing so, such uses can be understood as attempts to pre-emptively evade the burden of proof.

To conclude, when subjective evidentials occur in conclusions they simply function as indicators of standpoints and do not constitute arguments in themselves. In contrast, when occurring in premises, they can be analysed as arguments by authority (i.e., arguments from authority in which the speaker is the authority), while simultaneously fulfilling the rhetorical function of discouraging counterarguments or further questions about the underlying knowledge source, and this function can, in turn, result in fallacious argumentative behaviour.

8.3. Conclusions

To conclude this part on the argumentative functions of the different types of evidentials, I try to summarize what observed in the previous paragraphs.

Firstly, at a more general macro-level, the quantitative distribution observed in §8.1 showed that evidentials tend to occur in argumentative moves and that evidentiality types are associated with types of argumentative moves. More specifically, while indicators of common knowledge, direct and hearsay evidentiality are statistically associated to

premises, inferential and subjective evidentials are associated to conclusions. This is consistent, all in all, with the more specific micro-argumentative work that they realize.

The fine grained, qualitative analysis conducted in §8.2, based on the reconstruction of argumentative structure and inferential configuration of representative examples indeed suggests that each type of evidentiality has a specific micro-argumentative functioning.

Direct evidentials work as micro-arguments justifying the truth of the subordinated proposition *p* by appealing to the locus from testimony, functioning as ancillary or inconspicuous arguments that reinforce *p*. They can be analysed as a subtype of ReP arguments – although, as I argued, a more precise locus and characterization of the inferential configuration allow a better understanding of their functioning.

Hearsay evidentials can be reconstructed as arguments from authority, instantiating different variants. I proposed to introduce the variant of the *locus from horse's mouth* to analyse cases where the quoted source is the person concerned. I also argued that, in reconstructing the micro-argumentative functioning of hearsay frames – for instance, in reconstructing the ReP argument – requires taking the identity of the source into account, since the argument's validity and strength depends on the source being recognized as an authority.

Inferential evidentials have a different functioning based on a) the type of move in which occur and b) the status of the inferential source. When they occur in conclusions or in premises having a textually explicit source with a full propositional content, inferentials have the role of signalling and representing the inferential path; so to say, the speaker makes its reasoning explicit to the interlocutor. As discussed above, the ReInf argument is resolved into the operative argument and is thus unnecessary. On the other hand, when occurring in premises and the source-premise is either implicit or, even if it is textually explicit it does not have a propositional content (e.g., it is a nominal phrase of which it is not possible reconstruct the alluded content), it is not possible to reconstruct the full inferential path, and therefore it is only possible to reconstruct the ReInf argument. In this case, the antagonist can counterargue or question the source, raising a critical question.

Common-knowledge indicators, which are relatively scarce in my data, occur exclusively in premises. These premises are therefore framed as shared and justified through arguments based either on a definitional locus or on an argument from authority. In both cases, the argument may be open to challenge and could also be criticised as an *ad populum* argument, which may, in some instances, be considered fallacious. A deeper

investigation of the argumentative functioning of common-knowledge frames – along the lines of Herman and Oswald's (2021) pragmatic analysis of the expression *everybody knows* – would help in assessing their validity.

Lastly, subjective evidentials appear both in conclusions and in premises. In conclusions, they simply function as indicators of standpoints and do not constitute arguments in themselves. In premises, by contrast, they can be reconstructed as arguments by authority and can serve the rhetorical purpose of preventing antagonists from raising counterarguments or critical questions concerning the underlying knowledge source. Such arguments by authority may be interpreted as fallacious strategies, and a more fine-grained investigation of their argumentative reasonableness could shed light on the argumentative practices and underlying *endoxa* characteristic of financial contexts.

As evidentials in ECCs frequently occur within argumentative moves, it is possible to hypothesize that the presence of an evidential may serve as a reliable indicator of the argumentative nature of the move in which it appears. Moreover, since different types of evidentials are associated not only with argumentative moves but also with specific argument schemes, they can provide valuable guidance for the argumentative reconstruction of texts. In this respect, evidentials may also be useful for the automatic detection of argumentation and for argument mining applications, particularly in supporting the identification of argumentative passages, the characterization of the role of each move, and the inferential reconstruction of the argument. Finally, as evidentials contribute to the construction of specific argumentative structures and can constrain the types of loci that are evoked, they can be said to construct *micro-argumentative patterns*, that is, recurrent argumentative configurations characterized by systematic combinations of argumentative indicators and argument schemes. For instance, the use of a direct evidential frame in a premise – typically instantiating a locus from testimony – can be considered a characteristic argumentative pattern in the activity type of ECCs.

In the next chapter, I will examine several specific evidential argumentative patterns, that is, patterns defined by the presence of evidentials, extending the analysis from the micro-argument instantiated by the evidential frame to the entire dialogic and rhetorical move.

9. Evidential argumentative patterns in earnings conference calls: the case of *hearsay-prefaced questions*

This chapter focuses on *evidential argumentative patterns*, namely, recurring and significant argumentative configurations that include as a defining feature the presence of an evidential and emerge as relevant in the observed genre. Section 9.1 defines evidential patterns drawing on the notion of argumentative patterns as defined within this work (see §6.4.2), while §9.2 discusses evidential argumentative patterns that emerge as relevant in the activity type of ECCs. I will then focus on the specific case of *hearsay in prefaced questions.* §9.2.1 presents the construction of prefaced questions and discusses their status as argumentative pattern, while §9.2.2 provides a detailed analysis of two main configurations of hearsay in prefaced questions (i.e., *simple* and *contrastive*) and of specific sub-types.

9.1. Identifying evidential argumentative patterns in ECCs

Firstly, I recall here for ease of reference the definition of argumentative configuration and argumentative pattern provided in §6.4.2.

> An *argumentative configuration* is a sequence of argumentative moves characterized by a set of features, including the type of standpoint, the argumentation structure or argument scheme employed, as well as related rhetorical or argumentative elements (e.g., concessions, counterarguments), argumentative indicators or linguistic expressions, and dialogic moves or speech acts. A configuration can be identified in discourse and/or theoretically defined.
>
> An *argumentative pattern* is a recurring argumentative configuration that is relevant within an activity type. A configuration is considered *relevant* when its occurrence can be explained either in view of the general characteristics of the activity type, such as the goals and constraints of the discussants, or in relation to specific contingent *exigences* emerging in the context.

As mentioned in Chapter 6, this novel definition, in contrast to the classical Pragma-Dialectical definition, allows for the inclusion of a broader range of significant constructions. Most notably, it enables the identification – through a bottom-up, data-driven approach – of relevant potential patterns that are defined not only by the type of

issue, standpoint, or argumentative structure, but also by other features. For example, configurations defined at the dialogic and pragmatic level, such as ROCOIs, closed-list questions, and prefaced questions, can be captured. In this sense, specific instances of these types of configurations may be realized in different concrete forms, instantiating various argumentative structures or inferential configurations, and these configurations can thus be considered "umbrella patterns" that encompass subtypes more clearly specified at the level of argumentative traits. Moreover, this conception allows to capture configurations defined by the presence of lexical indicators or specific expressions. In this dissertation, I focus on *evidential argumentative patterns* – that is, patterns whose defining features include the presence of an evidential.

The identification of significant and recurring configurations can be grounded in the analysis of dialogic and pragmatic features and, as such, does not require the prior reconstruction of the full argumentative structure of the discourse. Instead, it can rely on the annotation of dialogic moves. Subsequently, the configurations thus identified can be reconstructed and examined in greater depth in order to determine their underlying argumentative structure, the argument schemes invoked, and the inferential configuration – including any implicit premises – as well as their argumentative role within the discussion and their relation to the broader context.

As noted above, the identification of evidential argumentative patterns can be carried out through a bottom-up procedure based on the retrieval of evidentials within argumentative passages. This approach makes it possible to isolate recurring configurations that are comparable in terms of the role played by evidentials. For instance, as shown in Ch. 8, direct and hearsay evidentials frequently occur in premises. Accordingly, any argumentative construction that contains a direct evidential frame in a premise – regardless of the type of standpoint it supports or of the broader structure in which it is embedded – may be considered a potential evidential argumentative pattern. Its minimal configuration corresponds to that represented in Fig. 106: a conclusion supported by a premise in which a direct evidential frame occurs.

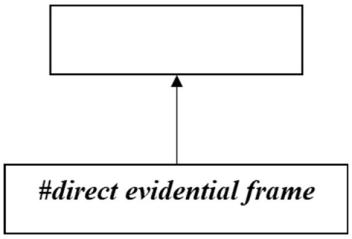


Figure 105. Representation of argumentative evidential configuration – conclusion supported by argument containing a direct evidential frame

This basic pattern may also be embedded within a broader argumentative structure, in which the conclusion is additionally supported by multiple argumentation (as in Fig. 107) or a compound argumentation (as in Fig. 108) with one premise containing an evidential frame.

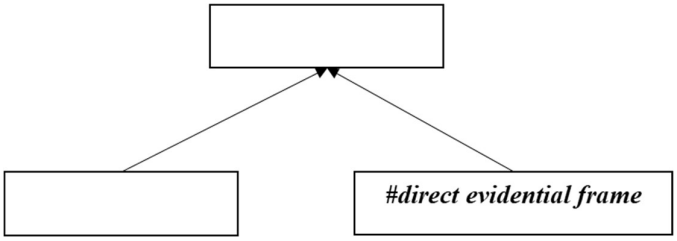


Figure 106. Representation of argumentative evidential configuration – conclusion supported by multiple arguments with a premise containing a direct evidential frame

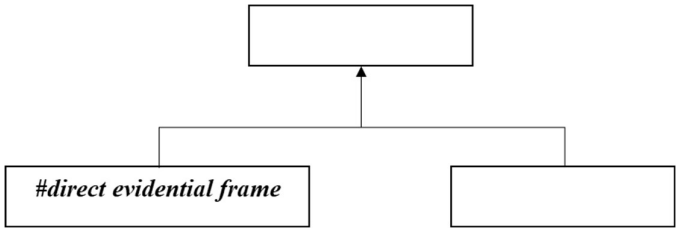


Figure 107. Representation of argumentative evidential configuration – conclusion supported by compound arguments with a premise containing a direct evidential frame

The direct evidential pattern could also occur in a larger argumentative structure, as in (109):

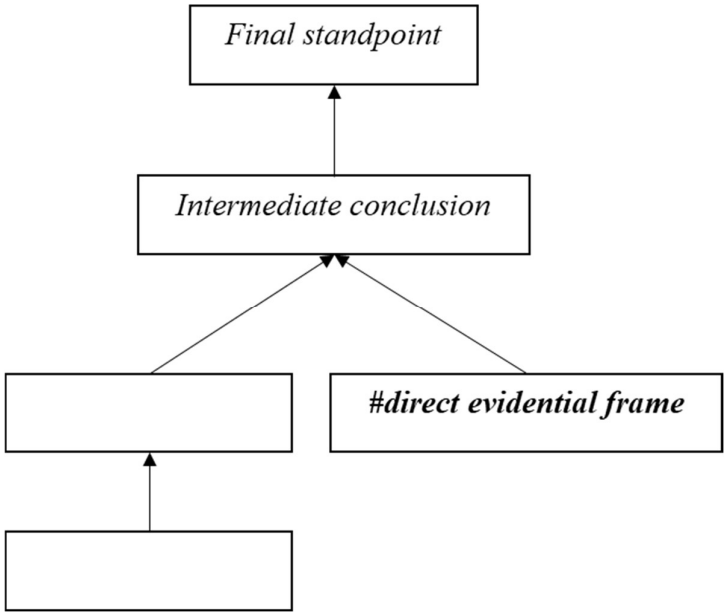


Figure 108. Representation of argumentative evidential configuration – conclusion supported by complex argumentation structure with a premise containing a direct evidential frame

or in an even more specific argumentative configuration:

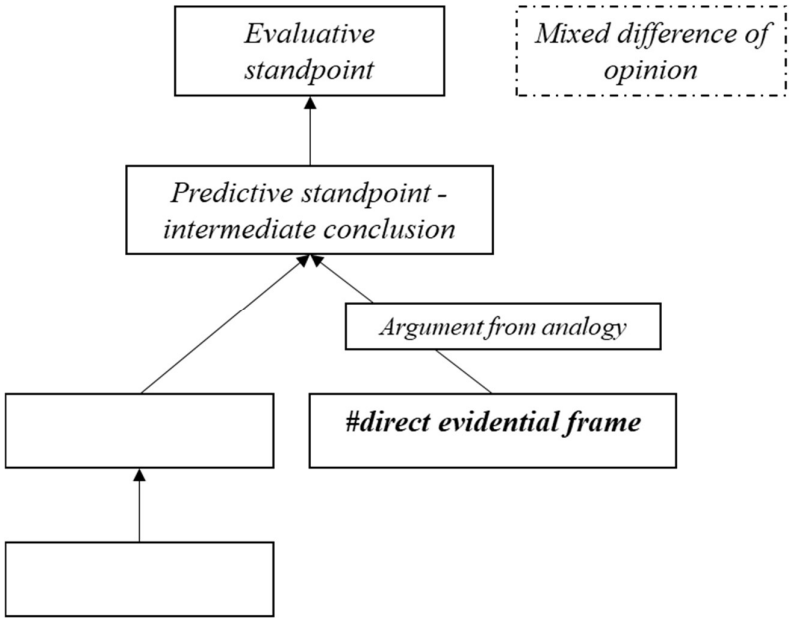


Figure 109. Representation of highly specified argumentative evidential configuration – specified for type of difference of opinion, standpoint type, intermediate conclusion (predictive), locus evoked and evidentiality type

It could also be further specified in terms of the characteristics of evidential frames, for instance specific expressions or cognizer type.

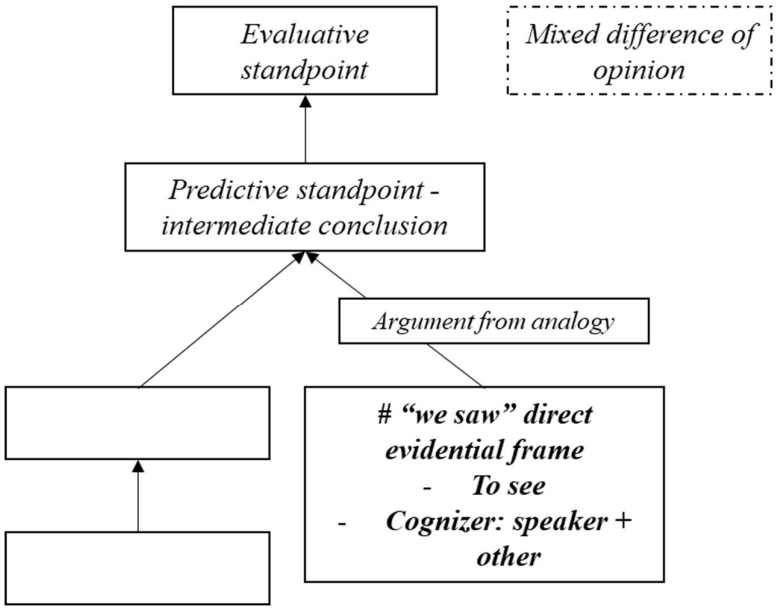


Figure 110. Representation of highly specified argumentative evidential configuration – specified for type of difference of opinion, standpoint type, intermediate conclusion (predictive), locus evoked, evidentiality type and evidential construction

In a way, the constructions in 110 and 111 are hyper-specified sub-configurations – very specific ones, defined for every possible feature – of the minimal pattern in Fig. 106, which is the "umbrella pattern". Essentially, the examples analysed in Ch. 8, instantiate specific configurations of evidential patterns. For instance, the argumentative reconstruction of example (155), reproduced below, shows a specific instantiation of the evidential argumentative pattern of *direct evidential frame in premise*.

> 155 Dave Stephenson (corporate; Chief Financial Officer) ***We're seeing*** strong listing count, 5.6 million. It is been very stable. I think, actually, one of the things that's been very impressive during this time is that our host churn in Q1 '21 is actually lower than our host churn in the same period in 2019. And actually, our churn in 2020 was even lower than what it was in 2019. So I just think it all just shows kind of that resiliency and the stability of our supply. (ABNB_Q1_21)

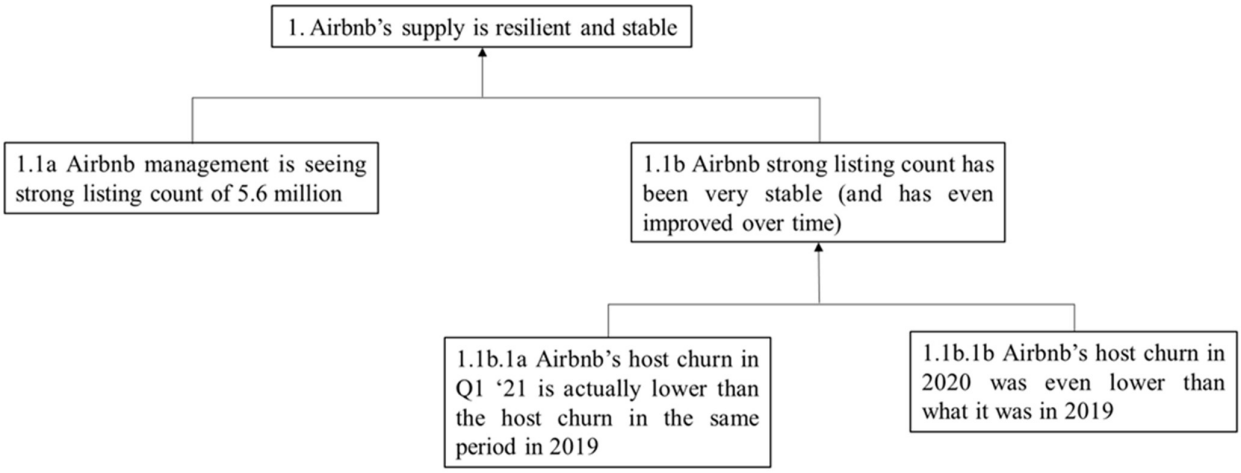


Figure 111. Argumentative structure of example (155) instantiating an evidential argumentative pattern

9.2. Evidential argumentative patterns in ECCs

In order to identify evidential argumentative patterns that are significant for the activity type, I assume that the best procedure is retrieving intersections between evidentials, argumentative moves and speaker. By cross-referring these three levels it is possible to identify recurring argumentative configurations that employ evidentials used by analysts and managers, which can be thus analysed not only in terms of their general argumentative and inferential work – as I did for the examples in Ch. 8 – but also against the backdrop of the specific incentives of the arguer and therefore verifying their relevance for the activity type and their strategic function.

To identify these characteristic patterns, I quantitatively examine the distribution of evidential frames across argumentative moves for both analysts and managers. This analysis reveals how different types of evidence are deployed in different argumentative moves by the two groups of speakers.

Table 48. Distribution of evidentials across argumentative moves in analysts vs managers turns

	Analysts		**Managers**	
Premises	475	97%	691	59%
Premise-conclusions	14	3%	134	11%
Conclusions	0	0%	353	30%
Total	*489*	*100%*	*1178*	*100%*

Looking at the distribution of evidentials in analysts' vs managers' moves we can firstly notice that both participants use evidentials predominantly in premises, confirming their primary role in providing justification. However, while managers distribute evidentials more broadly across move types, analysts appear to use them almost exclusively in premises. This latter datum is due to two main reasons: on the one hand, it depends on the fact that evidentials in questions – which play the role of conclusions – were not annotated (see §6.2.3); on the other hand, analysts' argumentations are in general shorter and less structured.

We can now turn to the distribution of different evidentiality types in the argumentative moves in participants' moves, displayed in Table 49, which allows for a comparison between the two speaker groups. These results provide the empirical foundation for identifying recurring evidential-argumentative configurations that are strategically significant within the activity type.

Table 49. Distribution of evidentiality type across argumentative moves in analysts vs managers turns

	Analysts				**Managers**			
	Premise	**Premise-conc**	**Conc**	**Tot arg**	**Premise**	**Premise-conc**	**Conc**	**Tot arg**
Common knowledge	1 (<1%)	0 (0%)	0 (0%)	1 (<1%)	4 (1%)	0 (0%)	0 (0%)	4 (<1%)
Direct	47 (10%)	0 (0%)	0 (0%)	47	176 (25%)	25 (19%)	56 (16%)	257 (22%)
Hearsay	162 (34%)	0 (0%)	0 (0%)	162	107 (15%)	3 (2%)	22 (6%)	132 (11%)
Inferential	164 (35%)	12 (86%)	0 (0%)	176	154 (22%)	52 (39%)	118 (33%)	324 (28%)
Subjective	67 (14%)	0 (0%)	0 (0%)	67	238 (34%)	49 (37%)	152 (43%)	439 (37%)
Unspecified evidentiality	34 (7%)	2 (14%)	0 (0%)	36	12 (2%)	5 4%	5 (1%)	22 (2%)
Total	*475 (100%)*	*14 (100%)*	*0*	*489 (100%)*	*691 (100%)*	*134 (100%)*	*353 (100%)*	*1178 (100%)*

In terms of evidential categories, we can notice inferential and subjective forms are the most frequent categories for both groups, but analysts favour inferentials and hearsay whereas managers rely more on subjective and direct evidentials, as discussed in Ch. 7. Common-knowledge and unspecified evidentials appear only marginally. Overall, these

patterns highlight distinct evidential-argumentative strategies shaped by the institutional roles of analysts and managers.

To determine whether the observed differences between analysts and managers in the use of evidential types across argumentative moves are statistically significant, a Chi-squared test of independence was conducted. Table 50 reports the observed and expected frequencies for each evidential category and move type, along with the corresponding χ^2 contributions. This analysis allows us to assess whether the distributional patterns identified above reflect systematic differences attributable to speaker role, or whether they could be explained by chance variation alone.

Table 50. Chi-squared test - distribution of evidentiality types across argumentative moves in analysts vs managers turns

Evidentiality type	Speaker	Premise (Obs)	Premise (Exp)	Premise (χ^2)	Prem-conc (Obs)	Prem-conc (Exp)	Prem-conc (χ^2)	Conc (Obs)	Conc (Exp)	Conc (χ^2)	Row Total
Common knowledge	Analysts	1	1.17	0.02	0	0.15	0.15	0	0.35	0.35	1
	Managers	4	3.83	0.01	0	0.49	0.49	0	1.16	1.16	4
Direct	Analysts	47	65.45	5.2	0	8.31	8.31	0	19.77	19.77	47
	Managers	176	157.55	2.16	25	20	1.25	56	47.58	1.49	257
Hearsay	Analysts	162	78.94	87.5	0	10.02	10.02	0	23.85	23.85	162
	Managers	107	190.06	36.32	3	24.13	18.52	22	57.43	21.85	132
Inferential	Analysts	164	93.28	53.54	12	11.84	0	0	28.18	28.18	176
	Managers	154	224.72	22.22	52	28.53	19.33	118	67.89	36.99	324
Subjective	Analysts	67	89.49	5.64	0	11.36	11.36	0	27.04	27.04	67
	Managers	238	215.51	2.34	49	27.37	17.13	152	65.13	115.71	439
Unspecif.	Analysts	34	13.5	31.11	2	1.71	0.05	0	4.08	4.08	36
	Managers	12	32.5	12.92	5	4.13	0.18	5	9.83	2.37	22
Total	**A**	**475**			**14**			**0**			**489**
	M	**691**			**134**			**353**			**1178**
Grand Total		**1166**			**148**			**353**			**1667**

The Chi-squared test assessing the relationship between speaker type, argumentative move, and evidentiality type yields a highly significant result ($\chi^2 = 588.66$, df = 10, $p < 0.0001$), demonstrating that the three variables are not independent. In other words, the way evidentials are distributed across argumentative moves differs systematically between analysts and managers.

At the level of evidential categories, *hearsay evidentials in analysts' premises* contribute substantially to the Chi-squared statistic: the observed frequency (162) is more than double the expected value (78.94), producing a χ^2 contribution of 87.50. This reflects analysts' dependence on publicly available or previously circulated information when constructing the justificatory basis for their assessments, which is in line with the observations discussed in Ch. 7. Similarly, *subjective evidentials in managers' conclusions* constitute the single largest contributor to the Chi-squared value ($\chi^2 = 115.71$). Managers deploy subjective evaluations far more frequently than expected when formulating conclusions, highlighting the role of stance-taking and projection in managerial argumentation.

Inferential evidentials also show meaningful divergence across groups. They are strongly overrepresented in analysts' premises ($\chi^2 = 53.54$) but are simultaneously overrepresented in managers' premise-conclusion units and conclusions. This might indicate that whereas analysts primarily use inferentials to derive assessments from publicly accessible premises, managers employ them more flexibly, often integrating inferential marking within more complex argumentative moves that blend justification with evaluation. Also, it should be noted that this difference can be due to the fact that, as already discussed above, evidentials in analysts' questions-conclusions were not annotated (see §6.2.3).

Overall, the Chi-squared analysis confirms that the differences observed in the frequency tables reflect patterned role-dependent strategies. In particular, the largest deviations from expected values highlight the patterns most characteristic of each group: analysts predominantly use hearsay and inferential evidentials in premises, whereas managers make greater use of subjective evidentials in conclusions and also rely more on inferential evidentials in mixed or concluding moves. These significant deviations between observed and expected values identify precisely which evidential-argumentative configurations are characteristic of analysts and managers.

A first strategy that emerges as particularly characteristic is the use of *hearsay in analysts' premises*. Since analysts' premises typically correspond to prefaces, we can also say that a recurrent configuration consists of *hearsay in prefaced questions*. This specific configuration has been selected for detailed analysis because it is the most frequent sub-pattern in the corpus and exemplifies how analysts strategically use reported speech to structure their questioning and guide the interaction (see also §7.3.4).

In the following paragraph, I discuss the general argumentative construction of prefaced questions, drawing primarily on the framework developed in Lucchini et al. (2022), Lucchini (2024), and Lucchini et al. (2025), in order to clarify how prefaces function as pragmatic arguments supporting the conclusion-question. I then analyse representative instances of the *hearsay in prefaced questions* pattern and its sub-types (see §9.2.2), focusing on their argumentative functioning and strategic relevance within the activity type.

9.2.1. Prefaced questions as argumentative patterns

Prefaced questions (see Ch. 4, §4.4.2.2.1) have been identified as an argumentative pattern characteristic of the ECC activity type by Lucchini et al. (2022); Lucchini et al., (2025); Lucchini (2025) (see also Ch. 6, §6.4.3.1). The mentioned studies have shown that prefaces function as enthymematic arguments that justify the production of the question, support the acceptability of the questioning speech act, and commit the respondent to providing a satisfactory answer (Lucchini, 2024; Lucchini et al., 2025). The role of reported speech in prefaced questions has also been examined through comparisons between financial analysts in ECCs and journalists in political press conferences (Lucchini et al., 2025).

As Lucchini (2024) and Lucchini et al. (2025) argue, prefaces justify the performance of illocutionary interrogative acts by effectively supporting, as a conclusion, the preparatory condition of the act itself. In this paragraph, I detail how this pragmatic justification works, by reconstructing the inferential configuration through the AMT model.

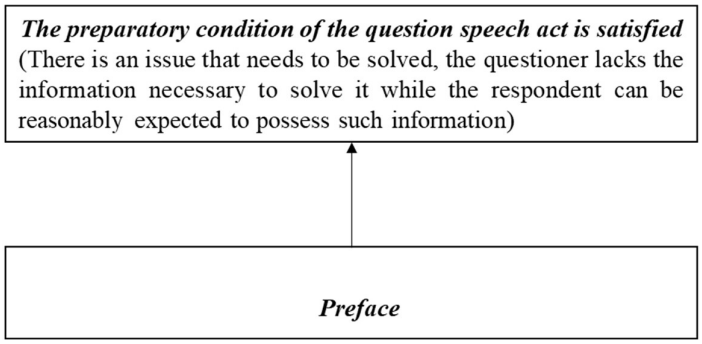


Figure 112. Basic structure of the *prefaced question* argumentative pattern

Essentially, prefaces show that there is an *issue requiring resolution*, indicate that the *questioner lacks the information necessary to address it*, and implicitly position the *respondent as possessing the relevant knowledge* and thus being capable of resolving the issue. In this sense, the preface justifies the standpoint coinciding with the satisfaction of the *preparatory conditions* of interrogative speech act, as shown in the general reconstruction of this argumentative construction in Fig. 114:

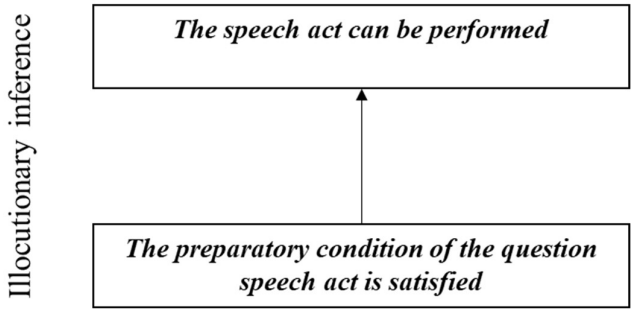


Figure 113. Argumentative structure of the generic *illocutionary inference*

However, arguing for the satisfaction of the preparatory condition does not amount, yet, to justifying the performance of the illocutionary interrogative act. Indeed, I also claimed that a second inferential step is made, where the preparatory condition satisfaction turns into a premise that supports the *illocutionary standpoint* that the question act can be performed.

This second inferential step is what I defined *illocutionary inference*. While the first inference varies in its configuration – in terms of what is the issue, what argumentative structure is realized and what argument schemes are employed – depending on how the preface is structured, the illocutionary inference is rather a sort of "standard" inference that works always in the same way. The inferential configuration is reconstructed in the Y-structure in Fig. 115.

The illocutionary inference relies on the *locus from ontological implications*, a definitional locus which establishes that when the conditions for a given event or state of affairs are satisfied, the event or state can legitimately occur (Rigotti and Greco, 2019: 254).

> This locus is active in reasoning processes such as the following: "We must thank him, because he has done a good job". The implication of being grateful,

> in this case, depends on the "ontological" relation between doing something good and being grateful. A sentence like "He has done his job well; so we must be grateful", builds on this locus, as it considers the ontological implication between "being grateful" and "having received something positive (a gift)". (Rigotti and Greco, 2019:254)

The locus from ontological implications belongs to the class of definitional loci; however, unlike the locus from definition, it does not establish purely truth-conditional implications, but rather *deontic* ones. What Rigotti and Greco (2019:254) define as "ontological implications," exemplified through the relationship between doing good work and gratitude, might perhaps be described more transparently as *deontic implications of ontology*. Such deontic implications – properly speaking, deontic extensions of definition – are often recognized as part of the extended definition, in relation to human realities, that is, persons, groups, institutions, and human practices (such as gift-giving or work), as well as individual human acts. This is even more evident in the case of speech acts, where these implications correspond to notions such as the conventional effects associated with the uptake of an illocution, as well as to the notion of pre-commitment. In the case of illocutionary acts, the satisfaction of the preparatory conditions *implies* that the speech act can be performed. The fact that the preparatory conditions are satisfied – the *datum* – corresponds to the standpoint justified by the preface.

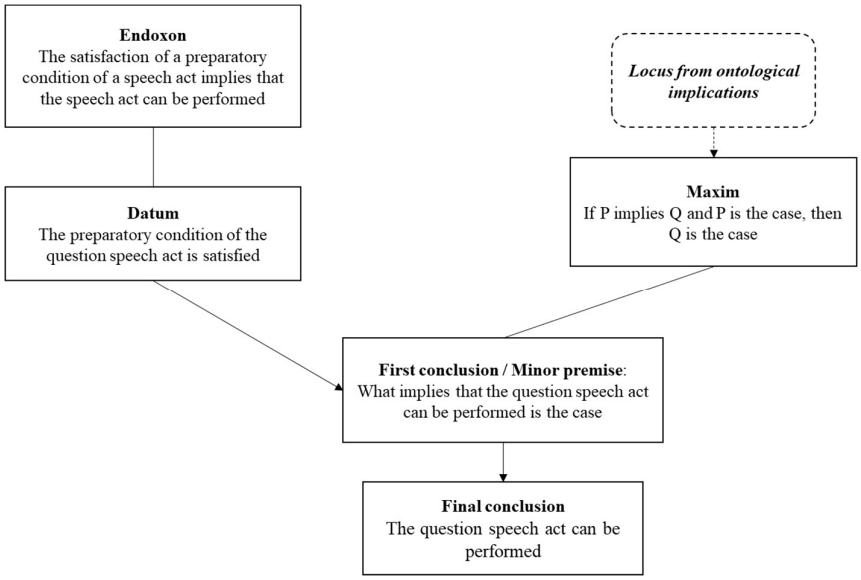


Figure 114. Y-structure of the illocutionary inference

Prefaces thus can be seen as *arguments for the acceptability of the speech act*. However, another reading is possible: prefaces can be read as arguments supporting a *practical inference* where the standpoint is a practical judgement of the kind "I should perform this speech act" (see Lewinski, 2021).

> [...] speech acts typically result from some prior judgement. That is, we need to practically reason, inside of us, to perform this and no other speech act in this very situation. In any communicative activity, we thus constantly conclude our internal deliberations with a conclusion "I should say *X* now" or "I should perform speech act of the kind *Y*" (apologise, deny, object to, approve). (Lewinski, 2021:430)

We can therefore consider the preface-question argumentative connection as an instance of practical reasoning, which works as an argument based on the locus from final-instrumental cause – "*goal to action*". The general structure of a practical reasoning can be reconstructed as in Fig. 116. The Y-structure of this inference is displayed in Fig. 117.

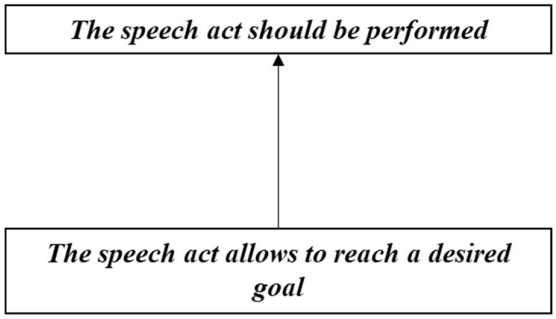


Figure 115
. Argumentative structure of the practical illocutionary argument

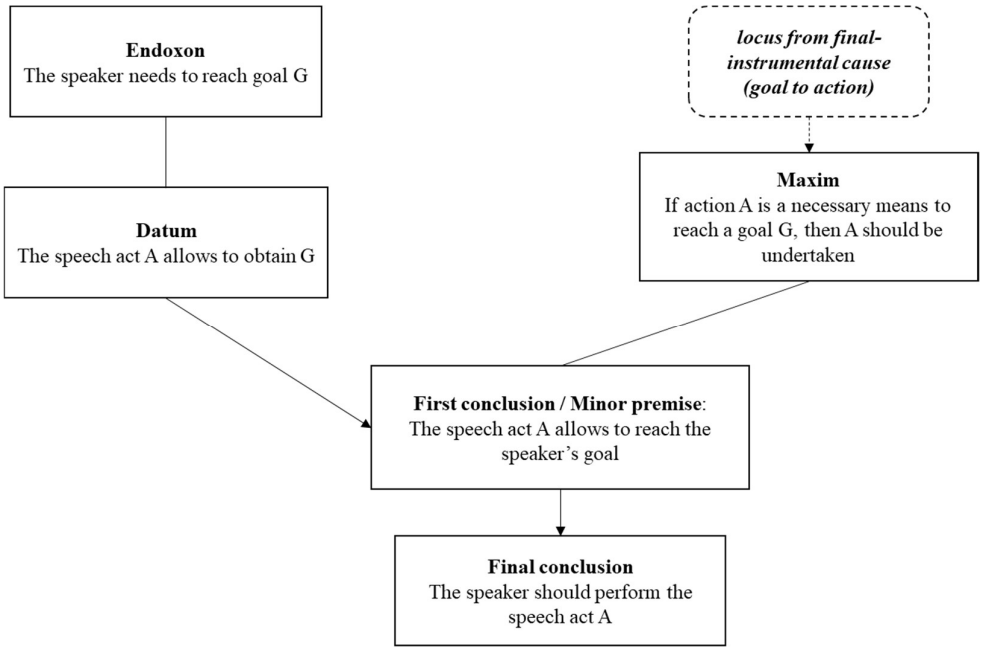


Figure 116. Y-structure of the inferential connection in the practical illocutionary argument

Prefaces, thus, can be seen as *practical arguments justifying the performance of the speech act*. While the first reconstruction puts the accent on the pragmatic *acceptability* of the act, the second one focuses on the practical instrumentality of it. Therefore, prefaces are strategic moves that, on the micro-argumentative and pragmatic level, serve the function of i) justifying the acceptability of the interrogative speech act and ii) justifying the performance of it, showing that it is relevant for the speaker to perform it.

There is, however, one last important factor. As questions are directives, their illocutionary point is to get the hearer H to perform an action A – namely, to provide an answer. This explains why speakers often justify their questions: they aim to *commit* the interlocutor to carrying out the requested action and to supply the required information. By demonstrating that the question is relevant, the questioner increases the interactional pressure on the respondent, making avoidance more difficult. In this sense, prefaces function as practical arguments supporting a *directive standpoint*: unlike the earlier interpretation, where the standpoint concerned the speaker's own reasons for performing an act, here the standpoint concerns the interlocutor and the reasons why *they* should comply.

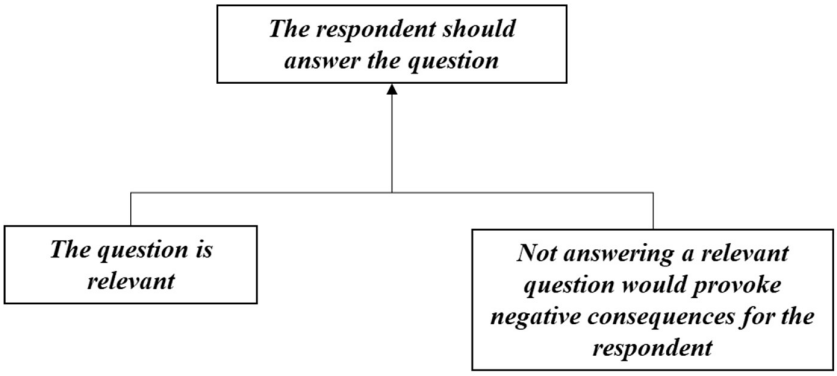


Figure 118. Argumentative structure of the directive illocutionary argument

The relevance of the question – working as a datum, as shown in Fig. 119 – is justified by the preface, which explains why the specific topic is important and why it matters for the financial community. The fact that failing to answer could produce negative consequences for the respondent corresponds to the underlying endoxon and is tied both to the context and to the social norms governing interaction. In general, the obligation for the interlocutor to respond arises from the principle that, in ordinary interaction, a relevant question generates a normative, socially recognized expectation to produce the appropriate next action – namely, an answer. This obligation is grounded in adjacency-pair structures, cooperative principles, and the need to maintain alignment and relevance in conversation.

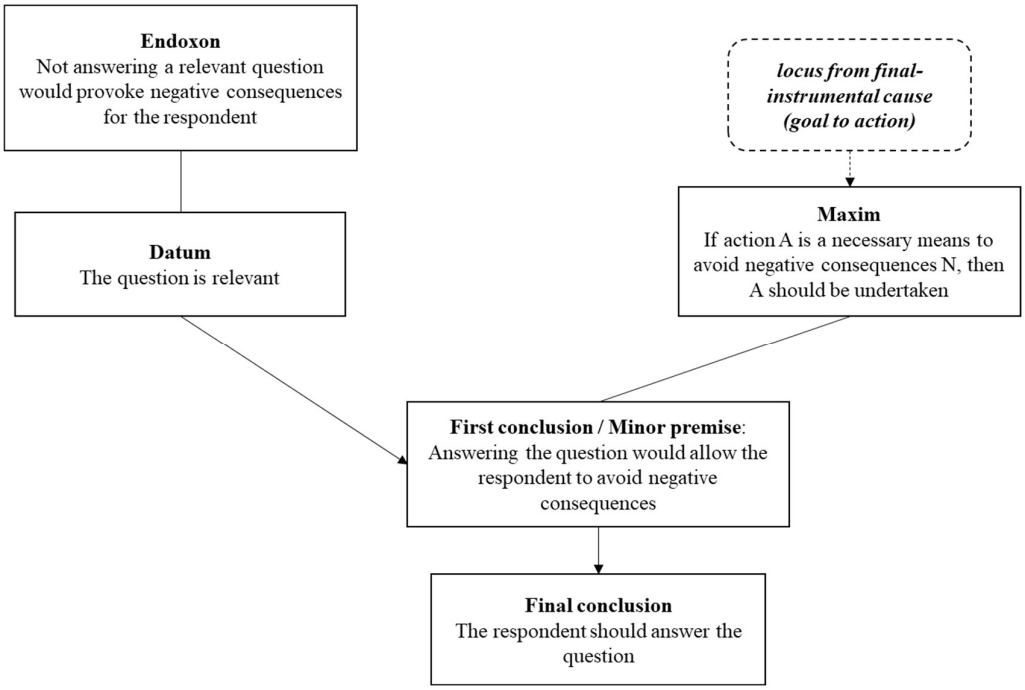


Figure 117. Y-structure of the inferential connection of the directive illocutionary argument

More specifically, within the activity type of ECCs, managers as respondents are bound to answer questions not only by virtue of interactional rules but also due to the shared and mutual commitments defined by the interactional field (see §4.2.1 and §4.2.2). As discussed in Ch. 4 (§4.2.2 and §4.4), managers and investors – and analysts by extension – share a joint goal of value creation: investors rely on firms to generate value in order to secure returns on investment, and managers need to maintain investors' trust in the firm and the management. In this context, it is also in managers' interests to provide analysts with relevant information for their reports for investors. While managers may be cautious about encouraging negative interpretations and thus may withhold certain information, they nonetheless recognize the necessity of sharing insider knowledge with analysts. In this sense, managers are required to fulfill their interactional role as answerers in a meaningful way, responding to questions in accordance with both the formal interactional obligations of ECCs and the broader normative expectations that govern the professional relationship between management and financial analysts.

As just mentioned, the preface in this case serves to justify that the *question is relevant* – corresponding to the datum – by arguing that there is an issue that needs to be solved that is relevant for the questioner and for the answerer. In a way, this practical argument builds on the first one: if the question is pragmatically acceptable, meaning if the preparatory conditions are verified, then the question is already relevant for the discussion and should be answered. Moreover, this argument adds a layer of *contextual* relevance, showing the importance of the question for the participants.

We can conclude that prefaces work as pragmatic arguments that justify i) the *acceptability* and ii) the *performance* of the interrogative speech act of the questioner and that at the same time iii) justify the *directive standpoint* that *the interlocutor should answer*, in order to avoid negative interactional consequences. Interestingly, this type of question justification in the context of ECCs it is not merely a justification of the question based on the analysts' lack – and need – of information (i.e., "I am asking you because I do not know"), which nonetheless constitutes the formal construction of the argument, but it is rather a justification framed within the context of a critical discussion. The question is legitimized insofar as it functions as a relevant argumentative move, while the obligation to respond is construed as a consequence of the interlocutors' argumentative commitments (Lomelí Hernández, 2023)

In the next section, I analyse the specific case of hearsay in prefaced questions in order to determine the particular argumentative and rhetorical function that the use of a hearsay frame serves in justifying the question.

9.2.2. Hearsay in prefaced questions

9.2.2.1. Classifying hearsay prefaces

From qualitative analysis of the corpus, two main configurations of hearsay in prefaced questions can be identified: *simple hearsay prefaces* (§9.2.2.2) and *contrastive hearsay prefaces* (§9.2.2.3). These configurations reflect recurring argumentative and pragmatic patterns in how analysts mobilize hearsay within preface-premises and provide a framework for interpreting the examples discussed in the following sections.

In *simple hearsay prefaces*, analysts introduce a question by reporting something previously stated – typically by management themselves, and less frequently by third parties (see Ch. 7, §7.3.4.2). The reported material serves to highlight the relevance of the topic and usually introduces a request for clarification, elaboration, opinion, or confirmation leveraging the reported content.

(183) Jed Kelly (Analyst Oppenheimer & Co. Inc) And then as, like, a follow-up, ***you mentioned work from anywhere***. Your company is, of course, based in San Francisco. So how do you see basically potentially using the work-from-anywhere trend to sort of save costs to make your business more efficient if you can, you know, have more employees working outside the bay area? (ABNB_Q1_21)

For instance, in (183), the analyst picks up on something the managers themselves previously highlighted – the "work-from-anywhere" trend – and asks how this trend could affect Airbnb internally, particularly whether it might help reduce costs by allowing employees to work outside expensive areas such as San Francisco. In this case, the hearsay, which refers back to management's own statements, serves to show the relevance of the topic and, more importantly, to frame Airbnb's adoption of work-from-anywhere as an unquestionable fact, since it was stated directly by the managers.

The second major configuration, *contrastive hearsay prefaces*, comprises cases where analysts use hearsay to establish a contrast that grounds their question. These contrastive prefaces are characterized by the identification of a tension, discrepancy, or inconsistency that requires resolution. Within this broader category, two subtypes can be distinguished based on the nature of the contrast and the degree of adversarialness: *source-contrast*

prefaces (§9.2.2.2.1) and *accusations of inconsistency* (§9.2.2.2.2) (see also §4.4.3.3.2 for a discussion of this strategy).

In *source-contrast prefaces*, analysts juxtapose a managerial statement – *hearsay(p)* – with information derived from another epistemic source – another *hearsay(q)*, with a different source, *direct(q)* or *inferential(q)*. The evidential contrast provides the grounds for the question, implicitly suggesting that the managerial statement is incomplete, requires elaboration or further explanation. The hearsay source marks one pole of t4he contrast, while the other source supplies the counterpoint, creating the argumentative need for the question.

A clear example of this structure is represented by (184) analysed in §7.3.4.3, reported below, where there is a contrast between a hearsay and an inferential frame.

> (184) Mark Mahaney (analyst; Evercore ISI): ***You just talked about having this record day***. I think ***you said last Saturday***, and I think you're also maybe appropriately cautioning about third-quarter trends and variance and Delta. So just kind of put those things together. ***Record day still sounds like things are good***, but I'm sure there are some warnings out there. Can you be more specific about what you're seeing that's causing you to be just a little more cautious about Q3 and the back half of the year? (ABNB_Q2_21)

In this instance, the analyst leverages on the fact that there is a conflict between what the management said (that they had a record day), which implies that the situation is positive ("*Record day still sounds like things are good*"), and the fact that the management is being cautious ("*you're also maybe appropriately cautioning about third-quarter trends and variance and Delta*"). On the basis of this "cautiousness", the analyst infers and suggests that the management is *seeing something* that provokes such behaviour presupposing it in the question ("*what you're seeing that's causing you to be just a little more cautious about Q3 and the back half of the year*"). As discussed in §7.3.4.3, asking about "*what you are seeing*" not only presupposes that such clues exist, but also that the managers have direct epistemic access to them. Also in this case, the question is justified by the apparent contrast between the two things, and the use of the hearsay frames "legitimizes" the contrast and gives relevance to the issue.

The second subtype of contrastive prefaces involves *accusations of inconsistency*, where analysts invoke prior managerial statements to identify a more direct contradiction – either between what managers said and what they did, or between two conflicting

statements. While still grounded in contrast, this configuration differs from source-contrast prefaces in both the nature and the severity of the identified discrepancy. Here, the tension is not between different epistemic sources or perspectives, but rather within management's own discourse or between their statements and actions. This represents a more confrontational argumentative move, as it challenges the coherence and reliability of management's narrative itself.

(185) Jernej Omahen (Analyst Goldman Sachs) Thomas, I listened to your opening statement very carefully. And I managed to find one of the passages that you quoted in this report that you published today. And ***it says here and you quoted is that this is not a situation where the business and risk personnel engaged in fraudulent or illegal conduct, nor is one where the architecture of risk controls and processes was lacking, or the existing risk systems failed to operate sufficiently to identify critical risks***. And I just wonder how that tallies with the bulk of what you have been communicating today. Because ***one of the key communications that I understood is that Credit Suisse immediately changed, for example, the way you margin in your prime brokerage, went from static to dynamic, and yet the report seems to suggest that systems are fine***. Is that correct? (CS_Q2_21)

In example (185), the analyst performs an *accusation of inconsistency*. The turn opens with a meticulous invocation of prior managerial statements through multiple hearsay frames ("*I listened to your opening statement… I managed to find one of the passages that you quoted… it says here*"), which serve to anchor the upcoming challenge in the company's own discourse. In this configuration, hearsay is not used to set up a contrast between heterogeneous sources but rather to establish an authoritative textual basis against which the analyst evaluates the managers' subsequent actions and claims. The cited passage, asserting that no fraudulent behaviour occurred, that risk controls were not lacking, and that existing systems did not fail, is then directly juxtaposed with what the analyst characterizes as "*the bulk of what you have been communicating today*", namely the immediate operational changes undertaken by Credit Suisse after the incident (e.g., the shift from static to dynamic margining). By pointing out that such changes imply problems in the prior system, the analyst foregrounds an apparent inconsistency between the managers' reassurances (systems were fine) and their corrective actions (systems needed fixing). The question "*how that tallies*" functions as a request for reconciliation, pressing management to justify how both statements can simultaneously hold. The final interrogative ("*Is that correct?*") adds an additional layer of pressure, inviting an explicit commitment and thereby escalating the confrontational nature of the move.

Thus, while both source-contrast prefaces and inconsistency accusations are grounded in the identification of discrepancies, they differ in their argumentative force and adversarialness level. Source-contrast prefaces identify tensions between different perspectives or information sources, inviting elaboration or clarification without directly challenging management's credibility. Inconsistency accusations, by contrast, expose internal contradictions within management's own narrative, compelling them to restore coherence and thereby posing a more direct threat to their reliability and trustworthiness.

Example (186) represents an "in-between" case across source-contrast and accusation of inconsistency.

(186) Justin Post (Analyst Bank of America - Merrill Lynch) I think ***in the letter, it said post listings were stable with Q4***, but *it seems like you're really encouraged by what you're seeing.* So maybe you could dive in there and tell us, you know, what is encouraging about what you're seeing with hosts and whether you see -- expect a lot of new listings to hit the market over the next year? (ABNB_Q1_21)

In this case, the preface provides background drawn from managerial disclosures – the shareholder letter – introduced through a hearsay evidential ("*in the letter, it said*"), which functions as an ancillary argument supporting the reliability of the reported state of affairs, namely, that "*post listings were stable with Q4*". This evidential frame establishes the company's own communication as an authoritative source and thereby legitimizes the analyst's starting point. The analyst then contrasts this reported stability with management's seemingly more optimistic attitude ("*but it seems like you're really encouraged by what you're seeing*"). It is precisely this source contrast – between what the company *said* in its formal communication (stability) and what the analyst *infers* from managers' behaviour or tone (encouragement) – that triggers the question. The subsequent requests ("*maybe you could dive in… what is encouraging… and whether you… expect a lot of new listings*") aim to resolve this apparent discrepancy. Notably, by asking "*what is encouraging about what you're seeing*", the analyst presupposes that the managers *are* indeed *seeing* something that justifies greater optimism, thereby revealing that he treats this inference as warranted rather than hypothetical. At the same time, by asking "*what you're seeing*" he asks for the managers' evidential basis – what information they have access to that produces this apparent encouragement. Thus, the analyst's questions both aim to resolve the source contrast (stable listings vs. encouragement) and to elicit the

underlying evidential grounds that could explain why management's stance departs from the expected state of affairs.

Notably, this case illustrates the fuzzy boundaries between source-contrast and inconsistency patterns. While the contrast is between a hearsay-marked statement and an inferred content – characteristic of source-contrast prefaces – the nature of the conflict involves what management explicitly declared versus what they communicated through their tone. This makes it structurally similar to accusations of inconsistency, though the discrepancy is presented as less severe and more open to benign interpretation – perhaps management has access to additional information that explains their optimism but was not included in the written disclosure.

As this example illustrates, the distinction between source-contrast prefaces and inconsistency accusations is best understood as a gradient rather than a categorical boundary. Many instances in the corpus occupy intermediate positions on this continuum, displaying characteristics of both patterns. The key dimensions along which cases vary include: (1) the *severity of the discrepancy* – ranging from softer differences in perspective to logical contradictions; (2) the *locus of the contrast* – whether between heterogeneous sources or within management's own discourse; and (3) the *degree of adversarialness* – the extent to which the question challenges management's reliability and coherence.

Prototypical source-contrast prefaces identify discrepancies that can be attributed to differences in perspective, information access, or emphasis, and they invite elaboration without necessarily questioning management's credibility. Prototypical inconsistency accusations, by contrast, expose apparent logical contradictions that more directly threaten the coherence of management's narrative. However, numerous borderline cases combine elements of both patterns: they involve contrasts between stated positions and inferred observations (characteristic of source-contrast) while simultaneously identifying tensions within what management has communicated (characteristic of inconsistency accusations). In such cases, the analyst's formulation and the specific nature of the discrepancy determine where the instance falls along the adversarialness continuum.

All these configurations can be positioned along a continuum of adversarialness (Clayman and Heritage, 2002a; 2002b; Clayman et al., 2007). Simple hearsay prefaces occupy the least confrontational position, as they merely leverage reported content to establish relevance without introducing any challenge or problematization. Contrastive prefaces span a broader range: from relatively mild source-contrasts that invite

elaboration, through intermediate cases that highlight tensions requiring explanation, to more confrontational inconsistency accusations that directly challenge management's coherence. Nevertheless, because financial analysts are expected to avoid being too overtly adversarial or aggressive and to maintain a generally cooperative stance (Koller and Wu, 2023; D'Agostino et al., 2024b; Lucchini et al., 2025), even when employing contrastive prefaces – whether closer to source-contrast or inconsistency patterns – they tend to formulate their questions using mitigation strategies. Rather than directly confronting management, they frame the issue as an *apparent* inconsistency or a puzzle and invite the managers to reconcile or resolve it, thus containing the adversarial potential of the move while still exerting pressure. This strategic formulation allows analysts to fulfil their critical incentive – scrutinizing management's disclosures and holding them accountable on behalf of investors – while simultaneously managing their relational incentive by containing the face-threatening potential of the move. The interrogative framing, the use of epistemic modality and the presupposition that reconciliation exactly serves the function of preserving the collaborative relationship necessary for ongoing information access, even as the question exerts argumentative pressure for clarification or justification.

To assess the distribution of these sub-patterns, all prefaced questions containing at least one hearsay frame were retrieved and classified accordingly. The results are presented in Table 51.

Table 51. Occurrences and distribution of sub-patterns of hearsay prefaced questions

Sub-pattern	**Occurrences**	**%**
Simple hearsay question	111	81%
Contrastive hearsay prefaces	25	19%
Total	*136*	100%

As the table shows, simple hearsay prefaces are by far the most frequent sub-type in the corpus, accounting for more than 81% of instances, while contrastive hearsay prefaces, more confrontational, account only for the 19%. This distribution is consistent with the expectation that analysts tend to adopt a less adversarial and more cooperative stance in ECCs.

In the following sections, I analyse examples of *simple hearsay prefaces* (§9.2.2.2) and *contrastive hearsay prefaces* (§9.2.2.3) to show how they work, in particular detailing how the preface argumentatively function to justify the interrogative act.

9.2.2.2. Simple hearsay prefaced questions

The first type of prefaced question containing hearsay is the simplest: the hearsay frame introduces a piece of information attributed to someone else – usually the managers themselves – which is then established as the topic of the question. On this basis, the analyst asks for clarification, further elaboration, or confirmation. In this configuration, the hearsay frame functions to introduce the topic and underscore its relevance: by attributing the proposition to the management, the analyst presents it as both indisputably sourced from the respondents themselves and as information that the managers are expected to possess and be accountable for.

Example (187) clearly exemplifies this category.

(187) Naved Khan (Analyst Truist Securities) So ***you guys mentioned some slowdown in the nights booked in the third quarter***. Just wanted to get some color on how that looks like. Maybe can you talk about July and how it compared to the second quarter? And how does this look across different regions? Is it more pronounced in the US versus Europe or are they about the same? (ABNB_Q2_21)

In example (187), the analyst introduces his question through a simple hearsay preface, recalling that the managers themselves had "*mentioned some slowdown in the nights booked in the third quarter*". The subsequent question is a request for elaboration ("*Just wanted to get some color on how that looks like*"), followed by more specific queries concerning particular data points. Requests for elaboration involve asking "for further widening of knowledge about the matter surrounding some facts, events, situations or statements that may or may not have been previously introduced" (Lucchini and D'Agostino, 2023:16) and, therefore, can be considered "*softballs*": questions that are relatively non-adversarial, that provide face-saving opportunities for respondents, and that avoid direct confrontation (see Clayman and Fox, 2017). In this sense, the inquiry is not adversarial: the hearsay frame presents a topic on which the analyst asks simply for additional information. As discussed in Chapter 4, analysts must maintain a positive relationship with managers and therefore avoid being overtly adversarial. Open questions that grant managers room for manoeuvre in their responses are thus strategically

advantageous, as they reduce the risk of discouraging answers and encourage the provision of soft information.

This construction functions as a prototypical hearsay evidential frame in which the interlocutor is the quoted source, thereby signalling that the proposition at issue – namely, the existence of a slowdown – is already accepted by management and can thus serve as a shared starting point for the upcoming question. In micro-argumentative terms, the evidential frame operates as an ancillary argument appealing to the locus from authority, specifically in the variant of the *position to know* or the *horse's mouth*: since the slowdown concerns the company's own performance, management is naturally positioned as the most authoritative source. The analyst therefore treats the managers' prior statement as a guarantee of the acceptability of *p*, grounding the relevance of the issue he raises. Through this move, the preface satisfies the preparatory condition of the interrogative act by establishing i) that an issue exists – understanding the nature and distribution of the slowdown – ii) that the analyst lacks information to resolve it, and iii) that the managers are in a position to know more. On this basis, the illocutionary inference becomes available: since the preparatory conditions are met, the question act becomes pragmatically legitimate, in accordance with the locus from ontological implications.

Simultaneously, the performance of the speech act is justified through a practical reasoning: as the information requested is important for the analyst – and for the financial market – it is for him strategically relevant to perform the interrogative speech act.

Finally, because the topic was placed on the agenda by the managers themselves and, most importantly, because information about the third quarter slowdowns is relevant for the analyst – and for the financial market – the preface also strengthens the directive force of the question, as it demonstrates its contextual relevance and thereby increases interactional pressure on the addressees to provide the expected an answer.

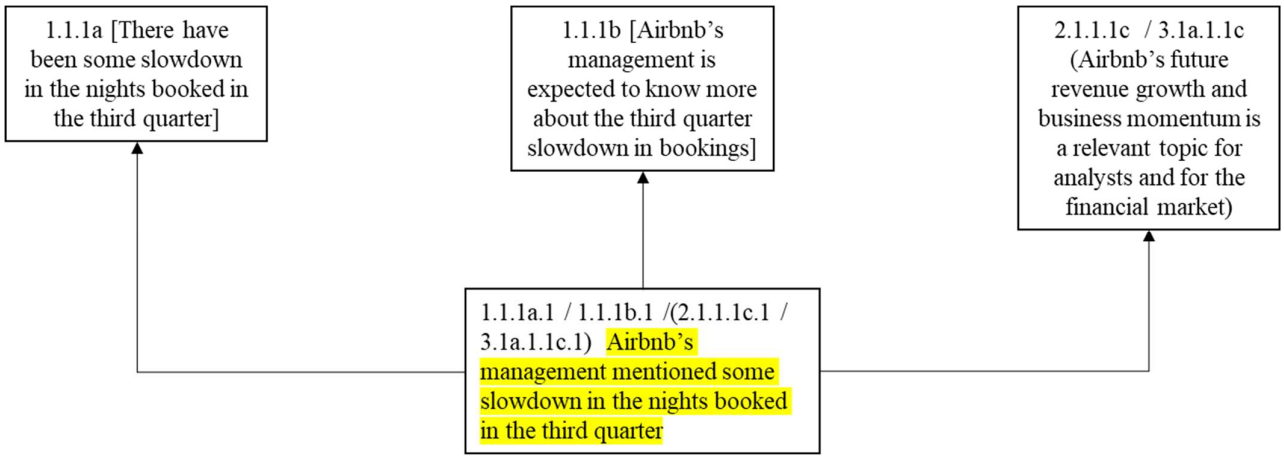
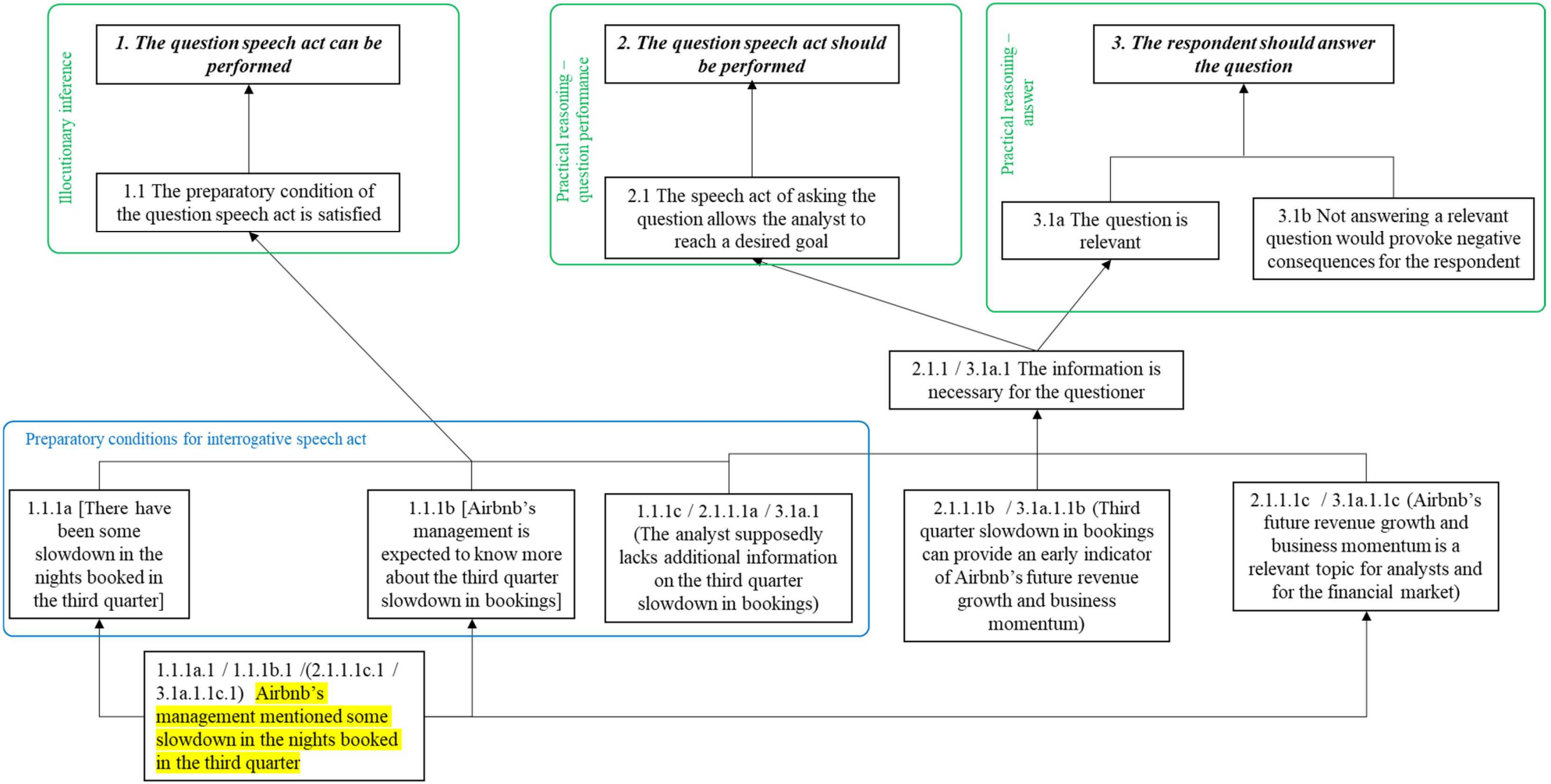


Figure 119. Argumentative structure of the illocutionary inference (hearsay prefaced question) of example (187)

These three levels of pragmatic argumentation are summarised in the argumentative structure represented in Fig. 120. What is particularly relevant for the present analysis is the specific contribution of the hearsay frame within the preface-premise. At the lowest level, where the evidential frame directly operates, the hearsay marker fulfils several key argumentative functions that are crucial for justifying the subsequent question. First, it functions as a micro-argument based on the locus from authority, specifically in its "horse's mouth" variant, supporting the subordinated proposition (e.g., that there have been slowdowns in third-quarter bookings; see §8.2.2). By attributing this claim to management, the analyst treats it as reliable and establishes it as a relevant issue for the company and its stakeholders. Second, this attribution simultaneously positions management as epistemically authoritative with respect to the issue. In this sense, the move can be reconstructed as a reverse argument from authority: by presenting management as the source of information *p*, the analyst implicitly constructs them as the appropriate party from whom further clarification is expected. Finally, because the issue is introduced by management themselves, it is framed as intrinsically relevant for the company. This, in turn, legitimizes the analyst's question and increases the interactional pressure on managers to address the issue, making it more difficult to avoid or downplay in their response.

Figure 120. Argumentative structure of the whole illocutionary argument instantiated by the hearsay prefaced question pattern (example (187))



In example (187), the analyst's use of a hearsay evidential frame functions not merely as a device for introducing the topic but as a strategic argumentative premise aligned with the core analysts' incentives. By attributing the proposition to management, the analyst simultaneously presents it as an undisputable starting point and leverages on it to justify his question, which supports analysts' primary goal of acquiring relevant information – thus arguing dialectically *ex concessis*. Since the slowdown was originally disclosed by managers, the analyst can legitimately request elaboration ("*get some color*") on the topic, also asking for more precise data across time periods and regions ("*Maybe can you talk about July and how it compared to the second quarter? And how does this look across different regions? Is it more pronounced in the US versus Europe or are they about the same?"*). Also, by quoting management's prior statements, the analyst positions the managers as K+ on the topic, and himself as K-, further justifying the question act. At the same time, he displays his knowledgeability, demonstrating careful attention to corporate disclosures. This two-fold move aligns with the analysts' incentive of presenting themselves as competent professionals while highlighting the informational gap, necessary to ask the question. (§4.4.3). Furthermore, the hearsay preface subtly enacts analysts' second incentive: testing managerial performance and holding managers accountable. By grounding the question in management's own disclosures, the analyst makes the issue more cornering and thus more difficult for managers to downplay or avoid, increasing the pressure for a substantive answer. The preface thus operates as a soft mechanism of accountability, enabling critical scrutiny without overt adversarialness. Crucially, however, the choice of a simple hearsay frame also supports analysts' third major objective: maintaining a positive relationship with managers. Rather than overtly challenging management's competence, the analyst frames the question as an attempt to better understand information that managers themselves have flagged as significant. This mitigates potential face-threats and aligns with the politeness incentives and strategies documented in ECC interactions. In sum, the hearsay frame preface in example (4) strategically interlocks with all analysts' institutional goals, thus relating to the specific characteristics of the activity type. Therefore, the argumentative configuration of *simple hearsay prefaced questions* can be in all respects be considered an argumentative pattern

of ECCs, aligned with the contextual and interactional incentives of analysts as well as with their role as dialectical arguers.

As discussed above, the question in (187) is a request of elaboration, a notably softball type of question. A similar case is represented by (188), where the content introduced by the hearsay frame serves as a basis for the question, that asks to elaborate on the topic.

(188) Deepak Mathivanan (analyst; Wolfe Research): ***Brian, you noted that Airbnb would want to become the ultimate host and offer a more personalized service for guests.*** Can you elaborate on some of those efforts? And what type of incremental opportunities do you envision to kind of unlock from this in the next few years?

According to what observed in the data, the other types of questions associated to the pattern of simple hearsay prefaced questions are the *request of clarification*, which is a non-adversarial type as well, and the *request of confirmation (other)* (Lucchini and D'Agostino, 2023). The latter is relatively more confrontational, as it seeks confirmation from the managers to something – usually, the confirmation of something they or another source said.

In the first case, when precedes a request for clarification, the hearsay preface functions to introduce a topic, specifically, an assertion made by the managers, on the basis of which the analyst asks for clarification regarding its meaning or implications, as in (189) or (190).

(189) Stefan Stalmann (analyst, Autonomous Research): And the second question, I wanted to clarify what you said about dividend. ***The press release says 25% of net income in 2022.*** Is that the distribution that you're planning to make in 2022 for '21? Or is it looking one year further out?

(190) Lydia Rainforth (analyst, Barclays): ***Ben, on your start of year message, you talked about going faster, being bolder, being more daring***. Can you help me understand what that actually means in practice? And is that different to where you were thinking a year ago?

Similarly to (187) and (188), the hearsay frame in the preface can be analysed as an argument that supports several intermediate standpoints concerning the various aspects of the question justification.

The second case, when the question is a request of confirmation, the analyst asks for confirmation for something preciously declared by the company.

(191) Brent Thill (analyst Jefferies): And as just a follow on, has there been anything surprising to you through this recovery in Europe that – just anything that you've seen in underlying trends? Or ***is it just continued strengthening as you've been mentioning***? (ABNB_Q3_21)

As in (191), this can be put in contrast with another option, thus constructing an alternative question – or *closed-list* (Rocci et al., 2024) – that frames the alternatives "as mutually exclusive and exhaustive alternatives. The question conveys as a presupposition the expectation that they are not both true and that there are no other relevant alternatives. It is not necessarily a presupposition of strong logical or ontological incompatibility and exhaustivity, it could simply mean that the listed options are exclusive and exhaustive in practice, for all relevant intents and purposes" (Rocci et al., 2024:358). The analyst is asking whether the management has observed something different – "*anything surprising*" – or just what they already disclosed – "*just continued strengthening, as you've been mentioning*". By placing these two possible events side by side, the analyst in (7) presents the alternatives as equally possible, implicitly asking management to clarify which one holds and why. If management accepts this framing, they are expected to explain why no unexpected trend has emerged; if they reject it by introducing a third option, they are prompted to justify it (see Rocci et al., 2024:359). Although the question does not include an explicit argument favouring one alternative, the reference to what has already been "mentioned" functions as a background reminder of the company's previous statements, subtly suggesting that continued strengthening is the expected scenario unless management provides reasons to update that picture. In this sense, the use of a hearsay frame with the management as source makes the question more cornering (D'Agostino et al., 2024b); although it may be in contrast with the politeness incentive, being more cornering serves the goal of obtaining more precise information from the managers.

In example (192), the hearsay frame is not employed to justify the question simply by raising a topic that needs to be clarified or that is pointed out as relevant. Rather, the proposition introduced by the hearsay supports an inference drawn by the analyst which is put in contrast with other events.

(192) Benjamin Goy (analyst Deutsche Bank): So, first ***on cost you highlighted the 17 billion is at the upper end of the range***. And then you get some incremental benefit as you outlined in '23 and '24 from this 500 million vesting schedule. But still want to double check, given we are at inflationary times, you want to hire more people and ideally, revenues grow. So maybe you can speak about the '23-'24 measures a bit more. Why you're not, so to say, further increasing when you're already at the upper end of the cost range this year? (CS_Q4_2021)

In this question, the analyst highlights a tension between management's cost guidance and the economic environment in which the company is operating. While management states that costs will not increase further and expects some relief in 2023-2024 from the expiration of previously committed compensation, the analyst points out that inflationary pressures and planned hiring would normally push costs higher. By adding that revenues are *ideally* expected to grow as a result of this hiring, the analyst strengthens the challenge,

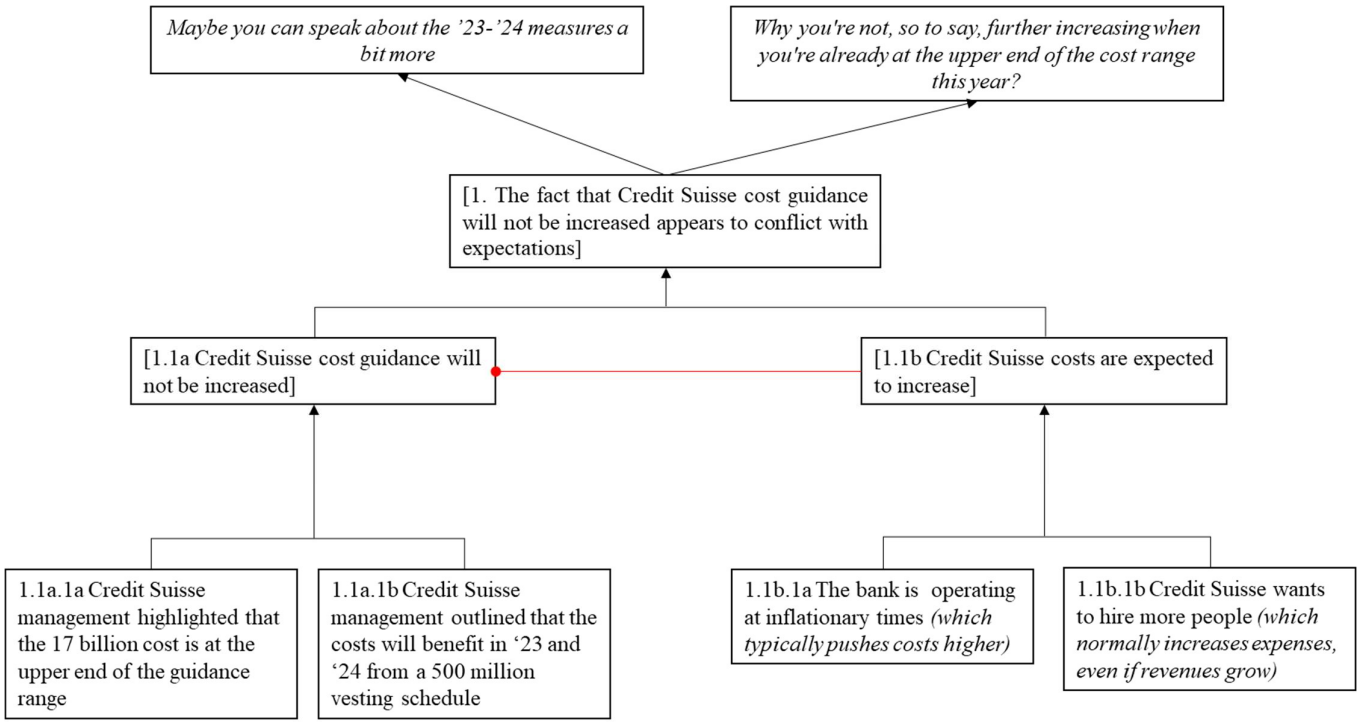


Figure 121. Argumentative structure of example (192)

since revenue growth itself typically brings additional variable costs. The question

therefore pressures management to justify the credibility of flat cost guidance and to explain what concrete measures will prevent costs from rising.

Reconstructing the argumentative structure of (192), it clearly emerges that the questions are justified by the conflict highlighted by the analyst in the preface – represented by the conflict between 1.1a and 1.1b, that together form a coordinative argumentation supporting the standpoint (1) corresponding to the preparatory condition of the speech act, with the hearsay frame functioning to construct and foreground this conflict. For this and the next examples, I will not reconstruct the full pragmatic argumentation, but only the argumentative step from the preface to the preparatory condition. We can consider this type of hearsay-prefaced question as a specific subtype of the first category, which is slightly more confrontational and cornering. It resembles a source-contrast preface, but the conflicting element – namely, the expectation of rising costs – is only argued for, and no alternative evidential source is explicitly provided to support the inference. The contrast is thus suggested but not fully articulated at the level of knowledge sources.

Example (193) represents a particular case. Although it does not involve a clear contrast between distinct sources, nor does it amount to an explicit accusation of inconsistency, the analyst nevertheless exploits a tension between the management's prior disclosures and the actual state of affairs.

(193) Magdalena Stoklosa (analyst; Morgan Stanley) So on the NII, of course, we have seen it – we've seen it coming down. ***You talked to us about the kind of impact on deposit income and, of course, kind of some offset on the lending*** **side**. But could you kind of give us maybe a little bit more steering on where to from here on a kind of quarterly basis? Because I have to say, I think that we've been kind of – we've been looking out for a kind of more of a stabilization in that number kind of quarter-on-quarter. Should we assume that you're also attracting tremendous amounts of liquidity, i.e., additional deposits, that are kind of dragging that number down as well? (CS_Q3_21)

The analyst first notes that the market has observed a decline in the NII (Net Interest Income) ("*we've seen it coming down*"), which aligns with the bank's own statements regarding the impact on deposit income. She also recalls that management mentioned

"*some offset on the lending side*", thereby implicitly suggesting that a stabilization process was underway. However, she then highlights that such stabilization has not materialised to the extent expected ("*I think that we've been kind of – we've been looking out for a kind of more of a stabilization in that number kind of quarter-on-quarter*"). In this case, the contrast emerges not between two explicit sources, but between what management stated – and more importantly, what it implied – and the current empirical situation, in which stabilization appears only partial. The analyst thus leverages this discrepancy to justify a request for further guidance, positioning the question at the boundary between simple hearsay and more adversarial contrast-based configurations.

As represented in the reconstruction below in Fig. 123, I interpret the observation of the decline of the NII and the bank's disclosure as arguments for the relevance of the topic

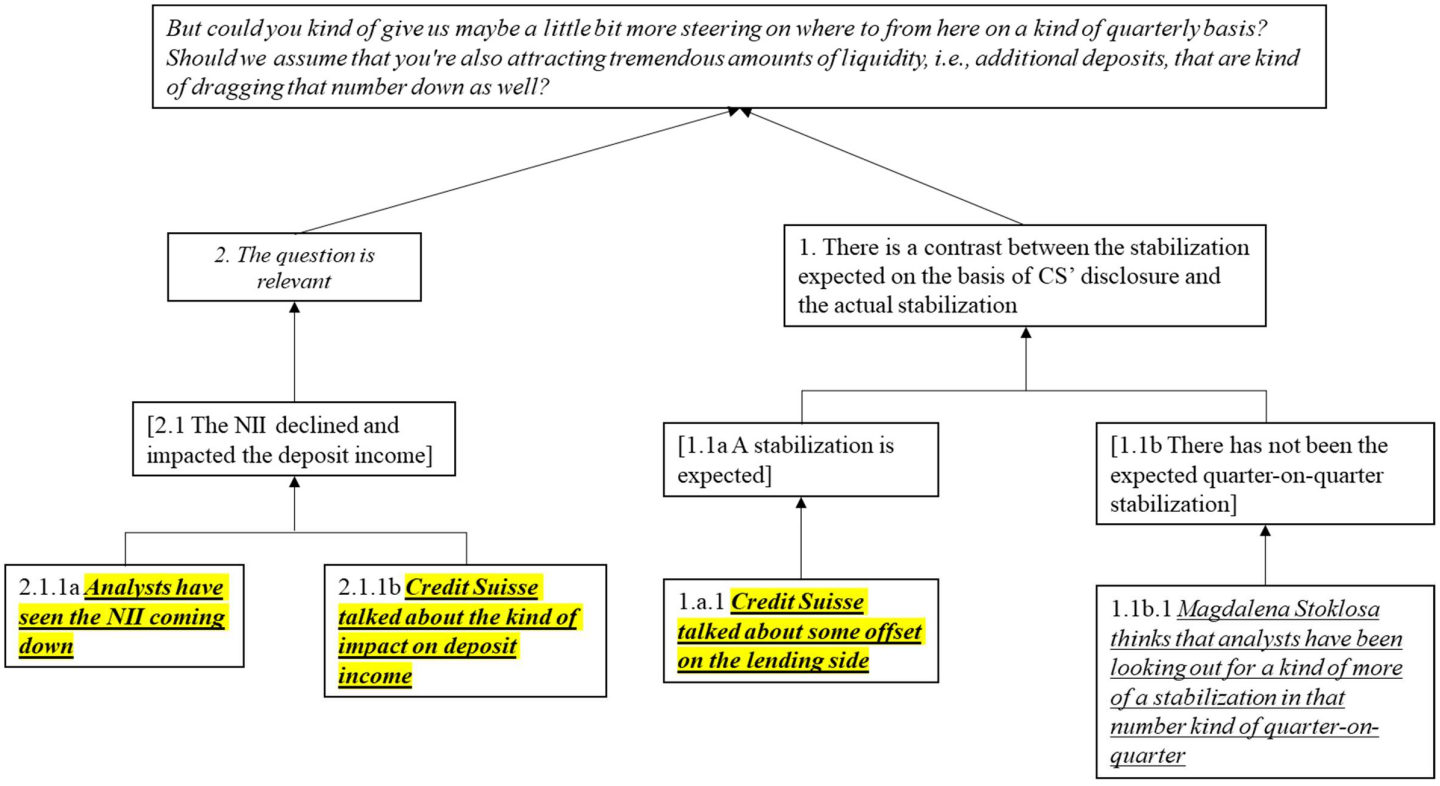


Figure 122. Argumentative structure of example (193)

and thus of the question. On the other hand, the contrast discussed above justifies the question by pointing out the existence of an issue that needs to be clarified.

9.2.2.3. Contrastive hearsay prefaces

As discussed in §9.2.2, contrastive hearsay prefaces are characterized by a conflict between a hearsay frame and a second element – either opposing information introduced by an evidential frame (*source-contrast prefaces*) or a contrasting action or disclosure by the same company, counting as an *accusation of inconsistency.* Also, in-between cases that combine elements of the two types are possible. I suggest that all these cases are argumentatively similar, as the main argument supporting the illocutionary act of questioning is the presence of a conflict. In this context, the inferential connection between premises (the conflicting facts or assertions) and the conclusion (the question act) involves a reasoning based on the *locus from opposition*, which highlights how the coexistence of two contrasting propositions creates the need for clarification Put differently, if two conflicting propositions are *prima facie* treated as true, insofar as there is evidence supporting both, a clarification becomes necessary. I suggest that such clarification may take different forms: it may involve the rejection of one of the two propositions, but it may also consist in enriching the contextual frame through the introduction of additional propositions that make it possible to resolve the apparent contradiction. As discussed in §9.2.2.1, and as the examples below will show in greater detail, analysts indeed identify a conflict between two pieces of information, yet they typically frame the inconsistency as only apparent and request that managers provide further information capable of resolving the discrepancy, thereby presupposing that a resolution is available.

The argumentative structure of a contrastive preface – where two conflicting propositions (p and q) are presented as both *prima facie* true – can be reconstructed as illustrated in Fig. 124 below.

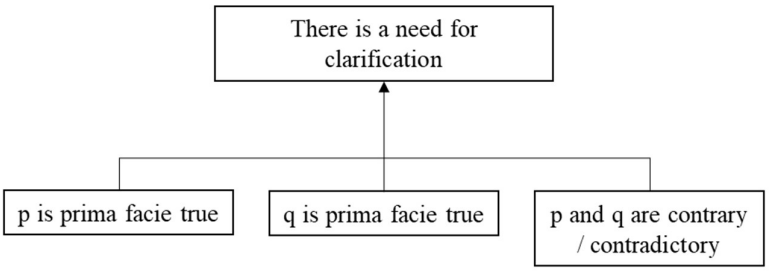


Figure 124. Argumentative structure of a contrastive preface configuration

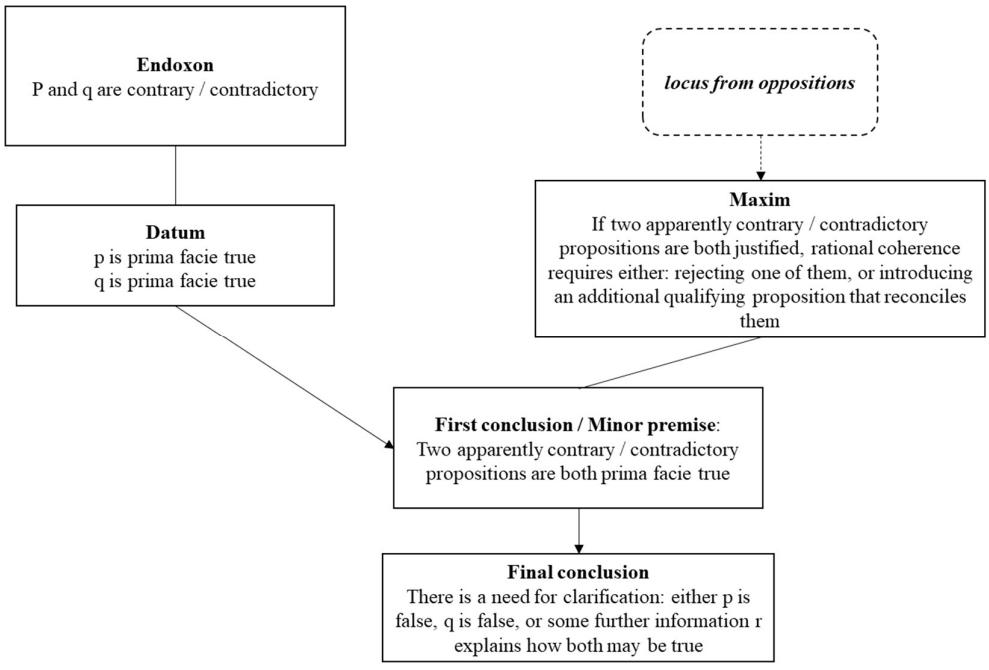


Figure 123. Y-structure of a contrastive preface configuration

The reconstruction of the Y-structure in Fig. 125 below makes explicit the inferential path that justifies the need for clarification.

As discussed in §4.4.2.2, the argumentative confrontation in ECCs is primarily organized around an overarching, largely implicit evaluative issue concerning firm

valuation, as well as a subordinate – yet likewise implicit – issue relating to the forecasting of future earnings. When analysts pose questions, they do so not merely as information seekers, but as arguers participating in a critical discussion structured around these issues. As already highlighted in §4.4.2.3, analysts characteristically argue *ex concessis* in a dialectical manner, albeit at a meta-level. By pointing to a contradiction between two conceded propositions, which are thereby treated as part of the common ground, analysts require their interlocutors to restructure that common ground, since the persistence of inconsistency prevents the resolution of the issue under discussion. In this respect, the pattern brings together two classic dialectical features: first, argumentation *ex concessis*, grounded in what the other party already accepts; second, the strategic compulsion placed on the interlocutor to restore the coherence of the common ground when confronted with contradiction. In this sense, analysts' questions have a clear heuristic dimension. Moreover, their questions are designed to clarify specific points that hinder progress toward issue resolution and therefore function as attempts to solve sub-issues. Once again, it becomes clear that, although these questions do not directly address the principal argumentative issues that define the activity type, they are nonetheless oriented toward progressively building the conditions for their eventual resolution.

In the next paragraphs, I will reconstruct the specific variants of the argumentative structure of source-contrast and of accusations of inconsistency configurations. As we will see, the main difference lies in the fact that while for the former the conflict is between a hearsay frame (where a manager is the source) and a different evidential frame, for the latter the conflict is between two hearsays attributed to the management where the content is conflicting.

9.2.2.3.1. Source-contrast hearsay preface

As already discussed above, a source-contrast hearsay preface consists of a preface where a hearsay frame where the source (S) is a manager and another evidential frame are conflicting insofar the propositions-scopes of the two frames (p and q) are contrasting – either contrary or contradictory. This configuration is a specification of the one introduced above, and can be reconstructed as follows:

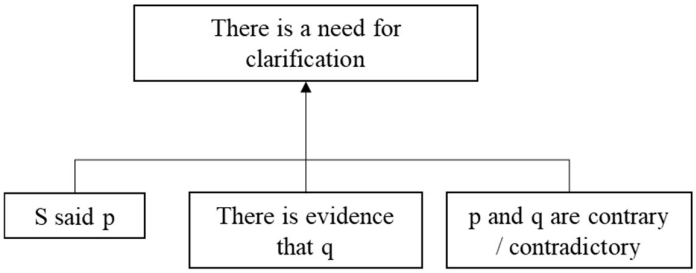


Figure 125. Argumentative structure of a source-contrast preface configuration

The type of evidence supporting q depends on the evidentiality type of the marker.

The Y-structure in Fig. 127 of this argument resembles and specifies the one in Fig. 125. The inference is based on the locus from oppositions and the maxim that an (apparent) conflict needs to be clarified, as it constitutes an incoherence; however, in this case, p and q can be said to be prima facie true also by virtue of the existence of evidence supporting their truth – represented by the two evidential frames.

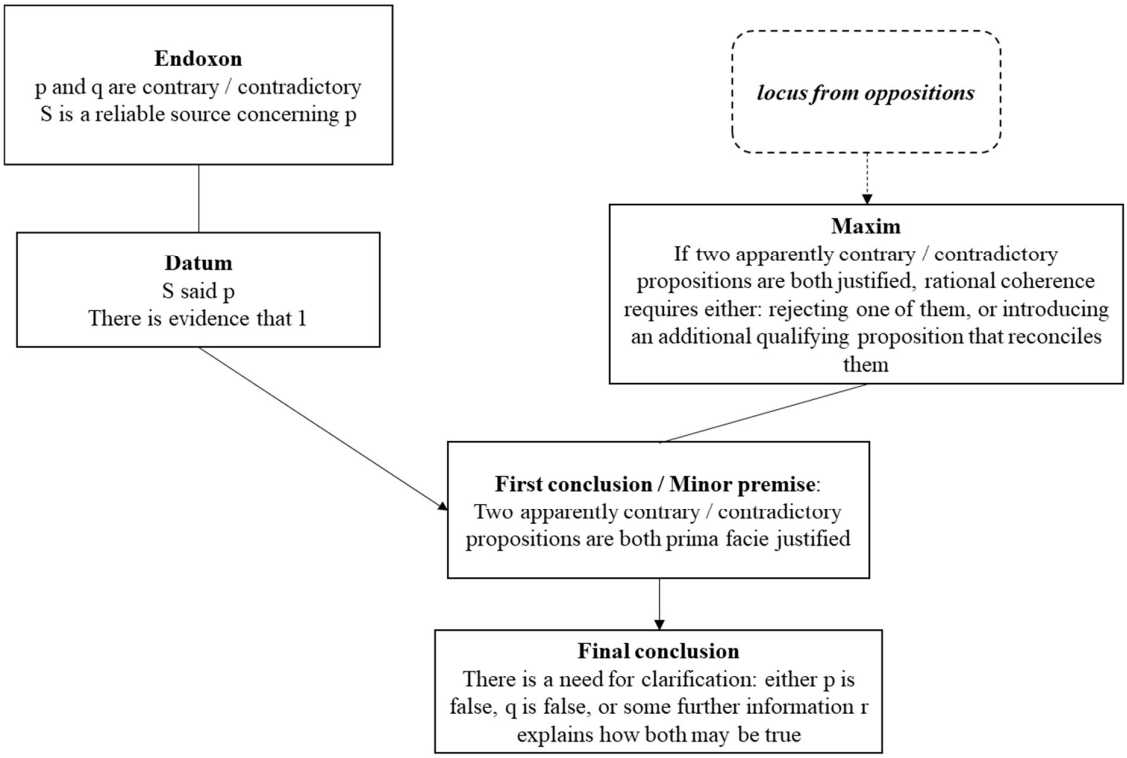


Figure 126. Y-structure of a source-contrast preface configuration

As noted above, this argument is grounded in the locus from opposition and appeals to the principle that two conflicting propositions – whether contrary or contradictory – cannot simultaneously hold true, and that in such cases a resolution that restores the consistency is needed.

Example (194), as noted above, constitutes a clear instance of a *source-contrast hearsay preface*, insofar as it combines a hearsay frame reporting something disclosed by the company with another piece of information derived from a different source – here, an inference.

(194) Mark Mahaney (analyst; Evercore ISI): ***You just talked about having this record day***. I think ***you said last Saturday***, and I think you're also maybe appropriately cautioning about third-quarter trends and variance and Delta. So just kind of put those things together. ***Record day still sounds like things are good***, but I'm sure there are some warnings out there. Can you be more specific about *what you're seeing that's causing you to be just a little more cautious about Q3 and the back half of the year*? (ABNB_Q2_21)

This strategy has already been discussed in §9.2.2 and §7.3.4.3. The argumentative structure of this prefaced question is reconstructed below.

The first question ("*So just kind of put those things together*"), which is formulated in a non-confrontational and conciliatory way, as it presupposes the possibility of reconciling the apparently conflicting elements, is directly justified by the contrast itself. The second question, which asks for clarification about "*what you're seeing that's causing you to be just a little more cautious about Q3 and the back half of the year*" is instead justified by an inferential chain: if the company is adopting a more cautious stance, then it must be observing additional information that has not been fully disclosed. This request for clarification is therefore also partially grounded in the contrast, as it is reasonable to ask for further information about the "*warnings*" the managers refer to, given that these place

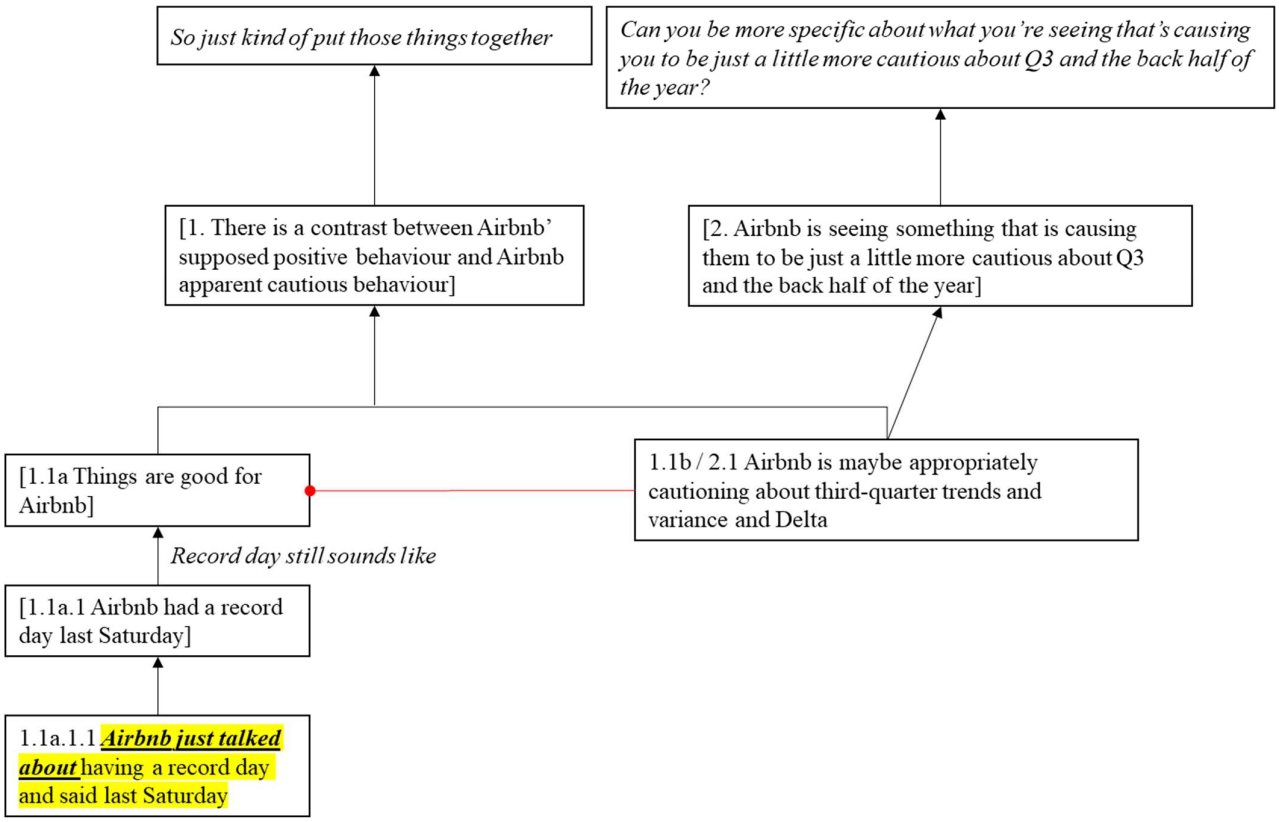


Figure 127. Argumentative structure of the hearsay source-contrast preface configuration of example (194)

them in a position that differs from what would be inferred solely on the basis of the positive disclosure.

Example (195) is quite similar to (194).

(195) Justin Post (analyst, Bank of America Merrill Lynch): I guess I really want to focus on behavior change, which could benefit the company, first hosts, and also guests. I think in ***the letter, it said post listings were stable with Q4***, *but it seems like you're really encouraged by what you're seeing*. So maybe you could dive in there and tell us, you know, what is encouraging about what you're seeing with hosts and whether you see -- expect a lot of new listings to hit the market over the next year? (ABNB_Q1_21)

Also in this case, the question is motivated by a perceived discrepancy between what can be inferred from the reported content and another state of affairs, represented by the coordinative argumentation built by 1.1a and 1.1.b and the conflict between them (the red dot-ended arrow). In this case, however, the conflicting event – the fact that the management is optimistic – is explicitly framed as an inference drawn from other evidence ("*it seems like you're really encouraged by what you're seeing*").

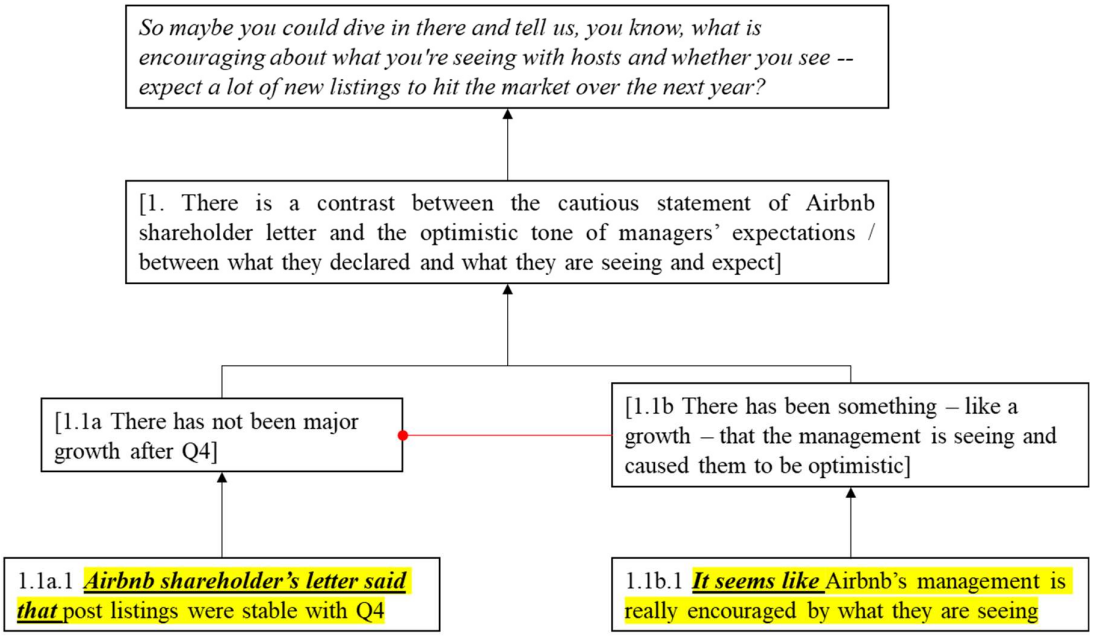


Figure 128. Argumentative structure of the hearsay source-contrast preface configuration of example (195)

By juxtaposing the hearsay report of the company's own disclosure ("*in the letter, it said post listings were stable with Q4*") with an inferential assessment of management's stance, the analyst signals that the managers' optimistic tone presupposes access to information that has not been fully disclosed. In other words, the analyst treats the managers' expressed encouragement as evidence that they are "*seeing something*" beyond what is stated in the formal communication.

This construction, contrasting a hearsay frame with a conflicting inferential frame, constitutes a recurrent argumentative strategy in analysts' question prefaces. It enables analysts to foreground a potential inconsistency between officially reported information

and conclusions inferred from other cues, such as tone, emphasis, or contextual knowledge. Crucially, this contrast does not merely point out a discrepancy; it functions to point out an issue or uncertainty. By making explicit that their own interpretation diverges from the implications of management's disclosure, analysts implicitly signal that, in the absence of further clarification, their inferential reading will stand. At the same time, the strategy exerts pressure on managers to respond by providing additional information, while avoiding overt confrontation: the analyst attributes the tension to differing evidential sources rather than to managerial misrepresentation. In this way, source-contrast prefaces allow analysts to "corner" managers into elaboration by invoking alternative grounds for inference, thereby strengthening the argumentative force of the question without escalating its face-threatening potential. It is clear, in this sense, the strategic nature of this construction.

Example (196) is an instance of another kind of source-contrast prefaces, where there is a conflict between two hearsay frames attributed to different sources, one of which is the management.

(196) Biraj Borkhataria (analyst; RBC Capital Markets): The first one is on divestments. ***There were some reports recently about you potentially looking to divest to the Permian***. And I was wondering whether you can make any comments on that ***given it was highlighted as one of your nine core upstream regions***.

In this case, the contrast emerges from the juxtaposition of two reportative frames. On the one hand, the analyst refers to "some reports" suggesting that the company may be considering divestment of its Permian assets. On the other hand, he invokes the passive construction "*it was highlighted as one of your nine core upstream regions*", which, although formally underspecified with respect to its source, is pragmatically attributable to the firm's own prior communications and thus to management.

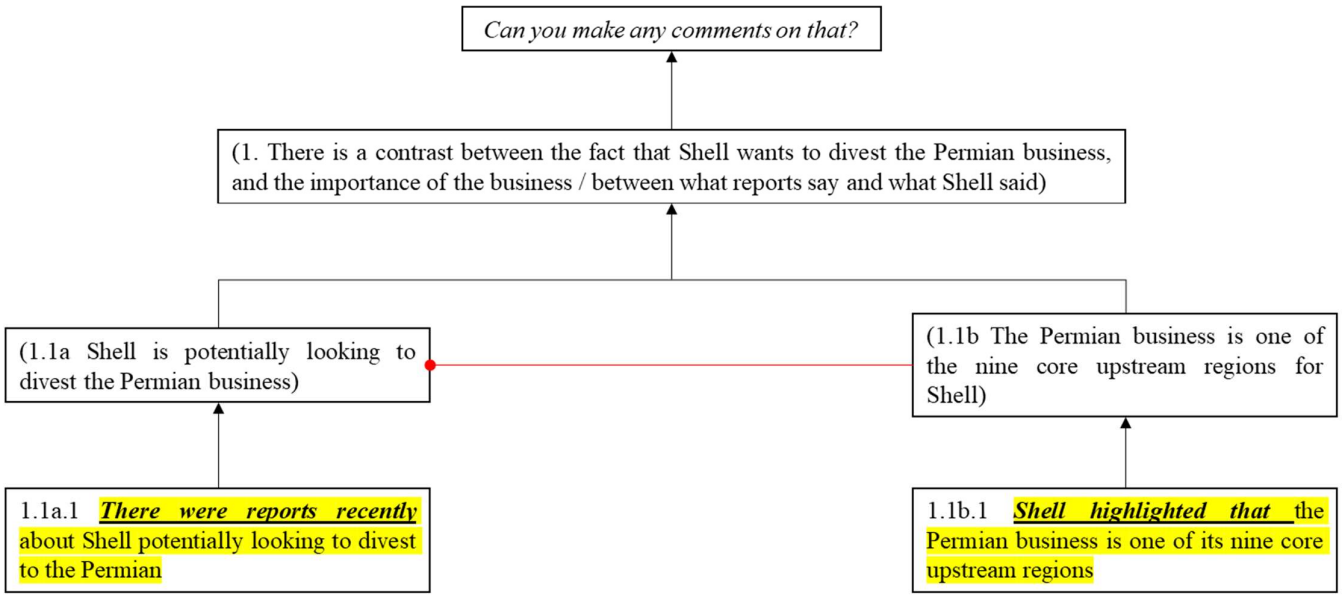


Figure 129. Argumentative structure of the hearsay source-contrast preface configuration of example (196)

The potential divestment implied by the external reports appears to be in tension with management's earlier positioning of the Permian as a core asset.

In a sense, the conflict is between two "authorities", and we can reconstruct a conflict between the two hearsay frames.

In his response, the manager explicitly downplays the third-party source by characterizing it as a "rumour", thereby undermining its authority.

(197) Ben Van Beurden (corporate; Chief Executive Officer): ***I've seen the rumors as well***. We don't comment on rumors. And I didn't think today was a particularly good day to start changing that practice. So I'm afraid you will have to live with that.

This response performs two moves. First, by framing the reported information as a rumour on which he refuses to comment, the manager diminishes the relevance of the topic. Second, by rejecting the reported source as non-authoritative, and thus denying the validity of the attributed content, he argumentatively challenges the very existence of an issue. In other words, beyond portraying the topic as irrelevant, the CEO also implies that

no genuine contrast is at stake, thereby undermining the justification of the analyst's question itself.

In relation to the analysts' interactional goals, this argumentative pattern serves multiple strategic functions that address the competing incentives analysts face during ECCs. Firstly, by putting side by side two contrasting sources and statements, the analyst builds a conflict that justifies the question, pushing the managers toward a substantive answer (although, in this case, evidently, the manager does not provide other information, as he refuses to answer, performing however a costly move). Furthermore, the hearsay framing allows the analyst to distance himself from the potentially adversarial nature of the question, effectively positioning himself as a neutral intermediary seeking clarification rather than as an accuser. This approach aligns with analysts' need to maintain positive interpersonal relationships with managers. Moreover, by invoking management's own prior communications about the Permian as a core region, the analyst demonstrates his expertise and thorough knowledge of the company's disclosures, thereby reinforcing his credibility to both his investor-principals and to management.

It has to be highlighted that this type of questions justification is not merely a justification of an interrogative move in the ordinary interactional sense, such as a "normal" question in everyday conversation. Rather, it should be understood as the justification of a question as an inherently argumentative move, that is, as a strategically relevant contribution within a critical discussion aimed at resolving a difference of opinion, in this case solving the *evaluative issue* concerning the valuation of the company (as well as the subordinate *predictive issue* on the forecasting on future earnings, see §4.3.2). In this perspective, the prefatory justification does not simply license the act of asking but rather situates the question within a structured argumentative framework in which it acquires its legitimacy from its role in advancing the dialectical exchange in order to solve the overarching argumentative issue of the call and thus fulfilling the shared argumentative goal. Crucially, this framing also foregrounds the respondent's obligation to answer, which is not merely pragmatic but derives from the participants' shared argumentative commitments and from the institutionalized joint goal of ECCs, as discussed in §4.4.2. In this sense, the question is not only made appropriate but is also

constructed as normatively binding within the interactional and argumentative architecture of the activity type.

In example (198), rather than juxtaposing statements from different sources, the analyst contrasts two statements attributed to the management at different points in time: one made in the past ("*you had a very detailed presentation in December last year and probably we were talking about the 10% to 12% and the investing for growth*") and one provided more recently ("*as you indicated, post the investment banking review and the new chairman arriving that we will get a new strategic update*").

(198) Anke Reingen (analyst Rbc Capital Markets): Firstly, is just on the strategy again. Obviously, ***you had a very detailed presentation in December last year and probably we were talking about the 10% to 12% and the investing for growth***. Should we assume by this fact the strategy stands at 10% to 12% RoTE or should we expect, as ***you indicated, post the investment banking review and the new chairman arriving that we will get a new strategic update***? (CS_Q1_21)

Similarly to the examples above, the question raises from and is justified by the contrast between two items, as represented in the reconstruction below.

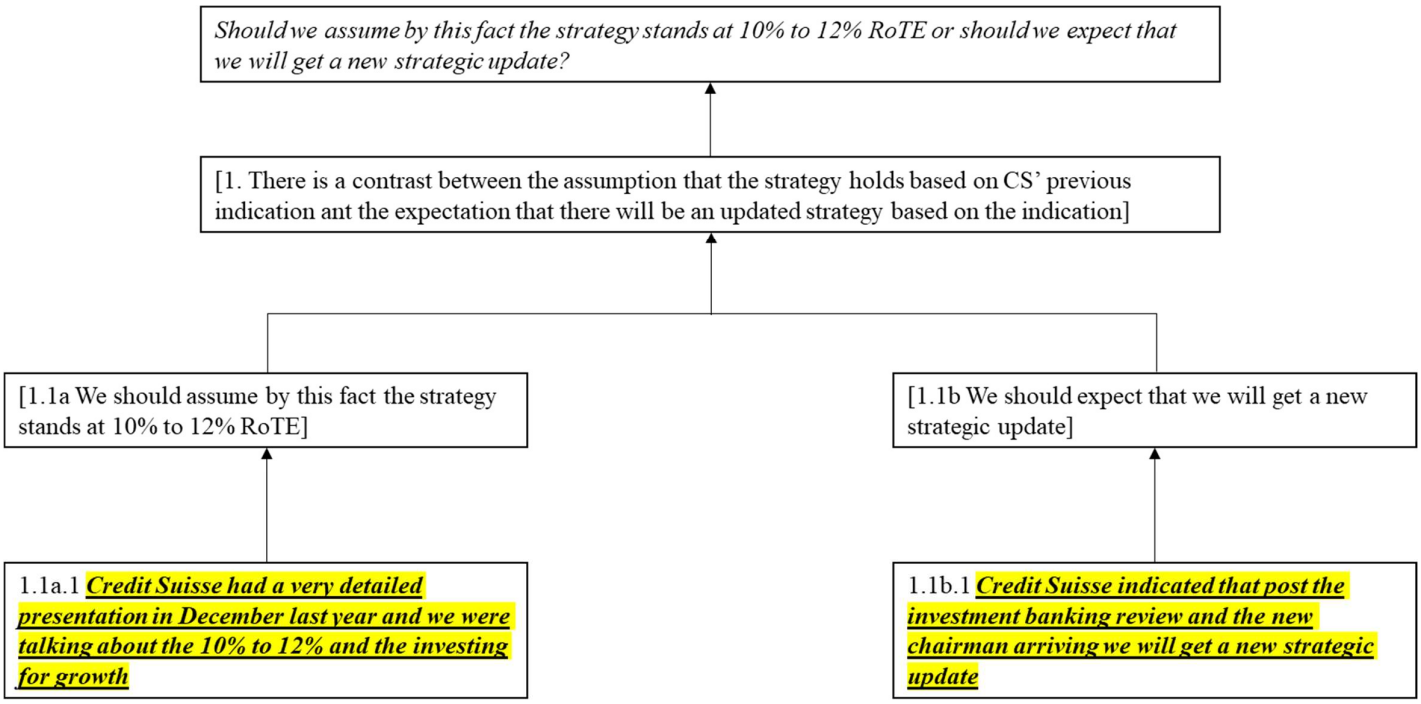


Figure 130. Argumentative structure of the hearsay source-contrast preface configuration of example (198)

Because the potentially conflicting elements are both attributed to the firm, this instance could, in principle, be analysed as an accusation of inconsistency. However, the analyst does not explicitly frame the situation as a contradiction or as managerial inconsistency. Rather, the contrast is presented as a possible *revision* or updating of the earlier position, and the question is formulated as a request for confirmation as to which of the two indications currently holds. This positioning mitigates the adversarial force of the move and places the instance at the boundary between source contrast and inconsistency accusation, illustrating the gradient nature of the typology introduced above.

A similar case is represented by (199)

(199) Bernie McTernan (analyst; Needham and company): And then just follow-up on DashPass. The ***9 million customers you talked about***, certainly more than we were expecting and it is been a while since you provided -- I think ***it was last year, you provided the 5 million.*** Can you talk about the cadence of getting from the 5 million to the 9 million? (DASH_Q3_2021)

The analyst compares two diverging data provided by the company ("*9 million customers you talked about*" vs "*last year, you provided the 5 million*") asking for an explanation on how the company reached the number. As the two data point are captured in different moments in time, there is not a strong "inconsistency", in the sense that the growth of the number of customers is, indeed, possible. What creates the tension is, probably, the expectation based on the 5 million of the previous year – "*certainly more than we were expecting*".

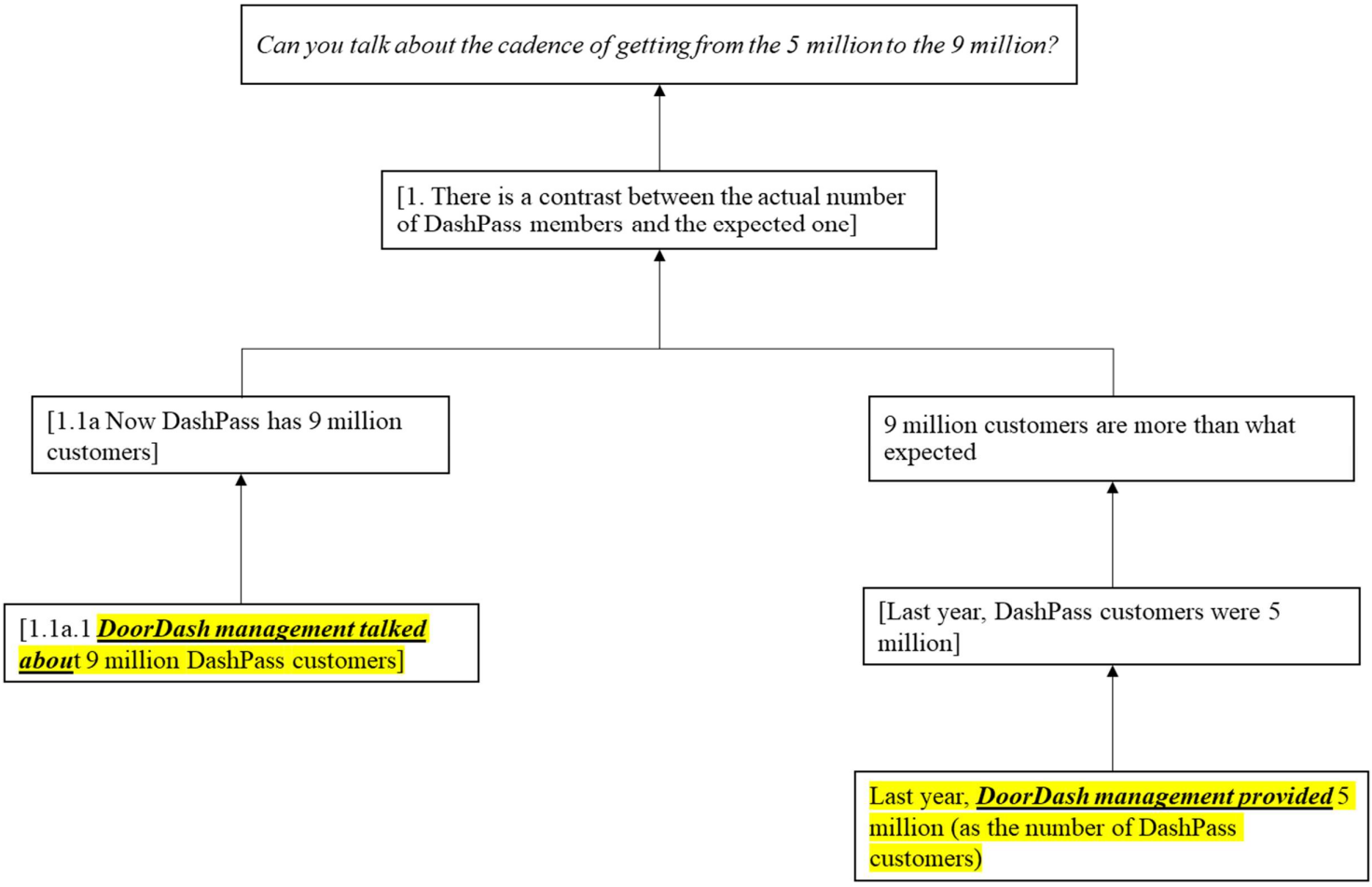


Figure 131. Argumentative structure of the hearsay source-contrast preface configuration of example (199)

9.2.2.3.2. Accusations of inconsistency

Accusations of inconsistencies, which have been discussed in Ch.4 (§4.4.2.2.2), may manifest as contradictions between different statements (e.g., "*you previously said A but then you said B*") or as discrepancies between stated intentions and actual actions (e.g., "*you said A but then you did B*").

The general argumentative structure of the first type can be represented as in Fig. 133:

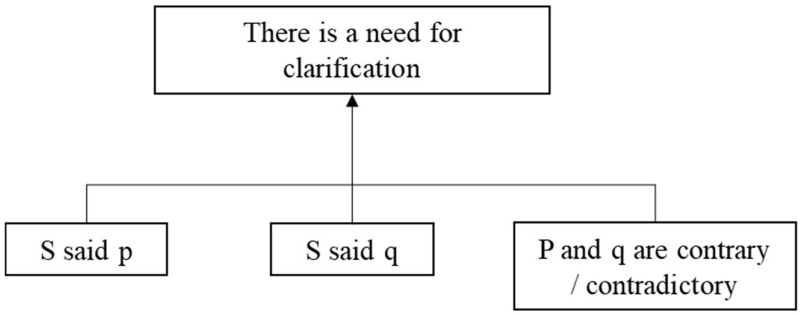


Figure 132. Argumentative structure of an accusation of inconsistency (type 1 – contradictory statements) preface configuration

Differently from source-contrast prefaces, in this case the conflict is between two assertions by the same speaker.[129]

As shown in the Y-structure below, the inference again appeals to the locus from opposition. Here, the relevant maxim emphasizes that a single speaker cannot assert two conflicting statements without creating a pragmatic issue of commitment: by asserting *p*, the speaker commits to its truth and, by implication, does not commit to ¬*p* (and thus to contrary or contradictory statements that imply ¬*p*). Consequently, asserting two contradictory statements generates an inconsistency that requires the speaker to provide clarification.

[129] Importantly, the speaker is not always an individual; it may also be a collective or plural speaker, such as the firm's management as a whole.

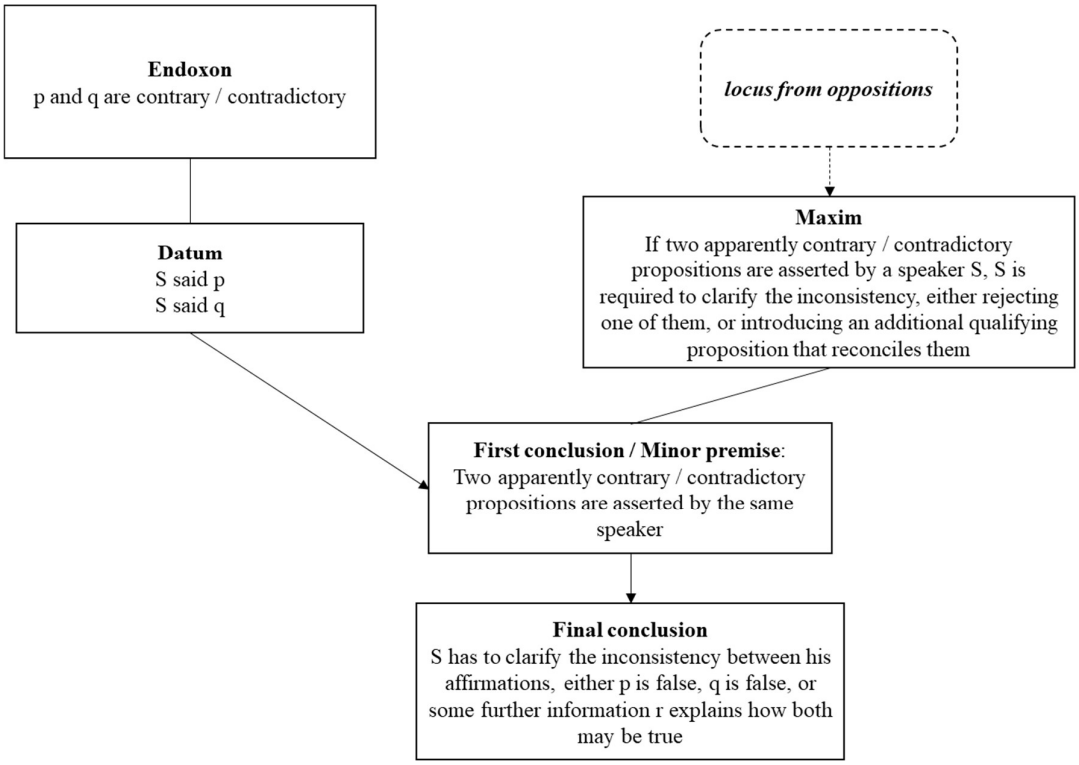


Figure 133. Y-structure of an accusation of inconsistency (type 1 – contradictory statements) preface configuration

This first case is exemplified by the analyst's question in example (200) from §9.2.2, reproduced and analysed below.

(200) Jernej Omahen (Analyst Goldman Sachs): Thomas, I listened to your opening statement very carefully. And I managed to find one of the passages that you quoted in this report that you published today. And ***it says here and you quoted is that this is not a situation where the business and risk personnel engaged in fraudulent or illegal conduct, nor is one where the architecture of risk controls and processes was lacking, or the existing risk systems failed to operate sufficiently to identify critical risks***. And I just wonder how that tallies with the bulk of what you have been communicating today. Because ***one of the key communications that I understood is that Credit Suisse immediately changed, for example, the way you margin in your prime brokerage, went from static to dynamic***, and yet the report seems to suggest that systems are fine. Is that correct? (CS_Q2_21)

As previously discussed in §9.2.2.1, the question is grounded in an apparent contradiction between management's reassurances that existing systems were adequate and their communication about subsequent corrective actions, which implicitly acknowledge systemic deficiencies requiring remediation. The analyst explicitly signals the first interpretation through the inferential frame "*the report seems to suggest that systems are fine*" for which he seeks confirmation through the tag question "*Is that correct?*", which can be analysed as a separate request (a ROCOI).

The inconsistency is made explicit through the analyst's formulation "*I wonder how that tallies with the bulk of what you have been communicating today*", where the verb "tallies" unambiguously signals the identification of a logical tension. However, the framing simultaneously presupposes that reconciliation between these seemingly contradictory positions is possible, as evidenced by the request for clarification rather than a direct challenge.

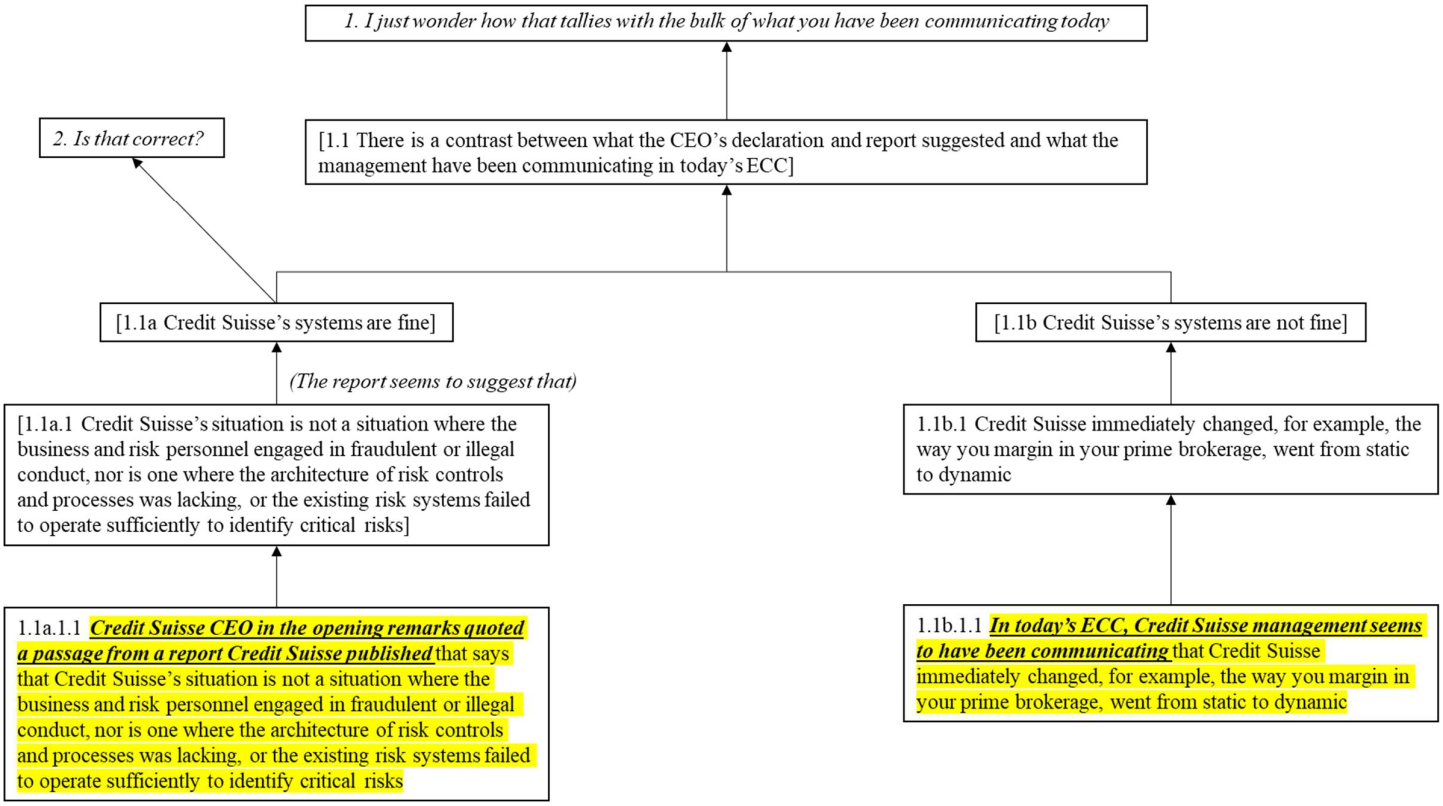


Figure 134. Argumentative structure of the accusation of inconsistency prefaced question configuration in example (200)

This strategic ambiguity reflects the analyst's need to navigate competing interactional goals. On one hand, highlighting potential inconsistencies serves analysts' critical incentive and the accusation of inconsistency creates an interactional exigence that compels management to respond, as failure to adequately address such concerns risks negative interpretation by the investing community, potentially affecting firm valuation and investor confidence. On the other hand, the positive interrogative framing serves the relational incentive to maintain cooperative relationships with management this balancing act by adopting a negative politeness strategies. Rather than making a direct accusation that would constitute a face-threatening act, the analyst frames the inconsistency as a puzzle requiring clarification, thereby mitigating potential damage to the interpersonal relationship while still fulfilling the critical function. This formulation allows management to address the concern without being positioned as having deliberately misled stakeholders, preserving the possibility of providing an explanation that resolves the apparent contradiction without admitting fault.

In the second type, on the other hand, the conflict is between a management's assertion and actions.

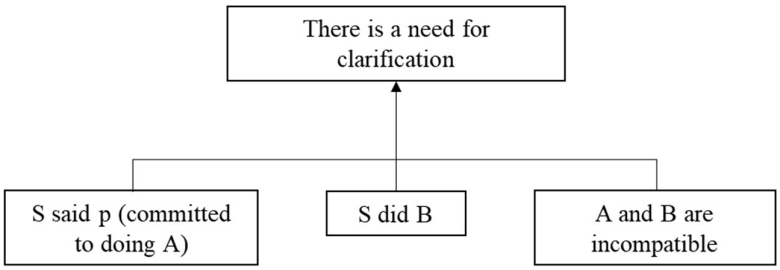


Figure 135. Argumentative structure of an accusation of inconsistency (type 2 – statement-action discrepancy) preface configuration

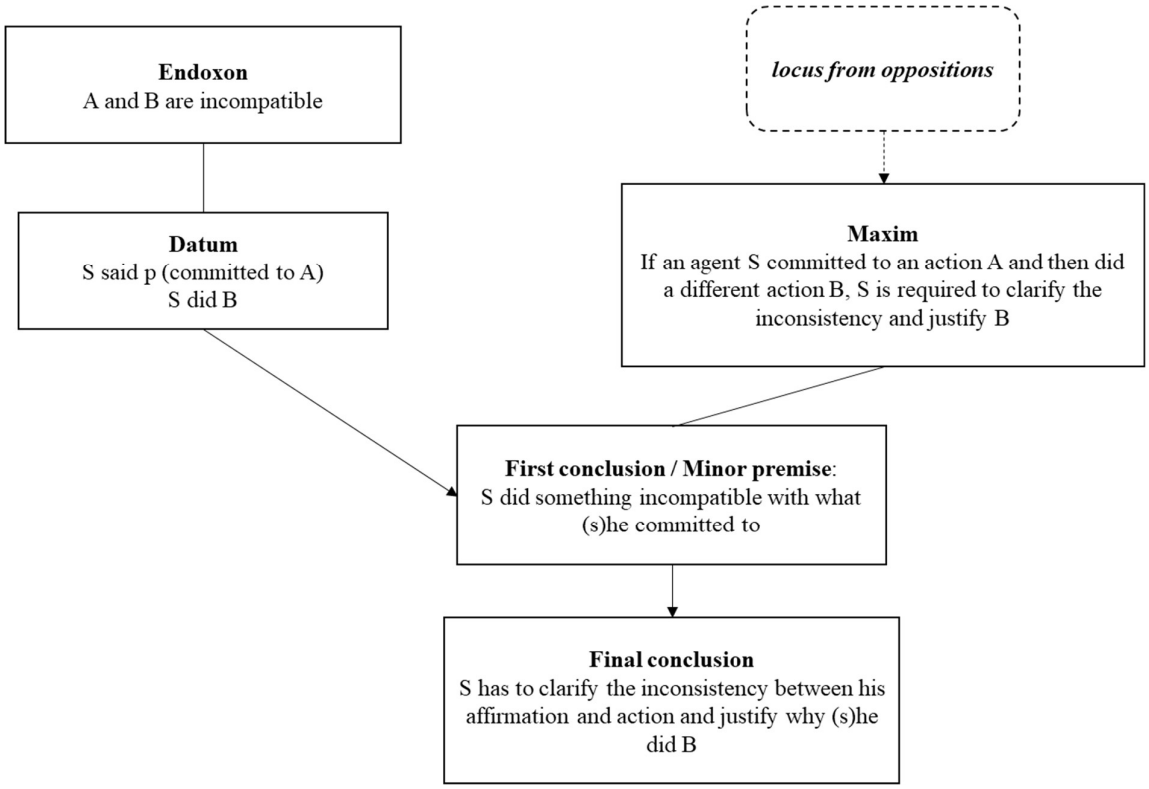


Figure 136. Y-structure of an accusation of inconsistency (type 2 – statement-action discrepancy) preface configuration

The issue that points toward the need of clarification is that S committed (verbally) to doing something (A) but then ended up doing a different action (B) that is (apparently) incompatible with A.

In example (201), the analyst's first question contains a straightforward hearsay-prefaced request: he first opens the topic broadly ("*can you talk about Nigeria?*") and then narrows it to the specific issue previously mentioned by the company ("*You guys had mentioned that the onshore operation […] you're looking potentially for asset sales to see if there's any progress on that*"). This structure fits the prototypical pattern in which the analyst invokes the company's earlier statements as a basis for seeking an update or further elaboration. The second interrogative unit, however, is more complex and constitutes an example case. Here, the analyst does not simply request clarification about a previously stated proposition; instead, he contrasts that hearsay-introduced proposition with another, apparently incompatible fact.

(201) Paul Cheng (analyst Scotiabank): Two questions, please. Maybe Ben, can you talk about Nigeria? ***You guys had mentioned that the onshore operation, given the change in the -- or that the continued deterioration on the situation there, that you're looking potentially for asset sales***, to see if there's any progress on that. And also, just curious that, I mean, *you still have the LNG operation in Nigeria as part of the core*. *But if the political environment is really, in your opinion, that deteriorating, why you think that the LNG operation or the gas side is not going to be impacted*? And if that's the case, should that still be considered as part of the core for you? So that's the first question. (SHEL_Q2_21)

The analyst notes that, according to Shell, the political situation in Nigeria is deteriorating and the company is therefore considering divestment from onshore operations. He then juxtaposes this with the company's continued classification of the Nigerian LNG business as a core asset. The contrast does not actually lie in the coexistence of these two facts, but rather in the contrasting conclusions that can be inferred from these premises, as shown by the structure in Fig. 138. If the political environment is indeed deteriorating to the extent that it justifies potential onshore asset sales, one might infer that LNG operations would also be at risk. Yet Shell's treatment of LNG as a core, and therefore presumably secure, asset suggests the opposite inference – that this segment will not be impacted by the political situation. It is precisely this tension between the two inferred conclusions that motivates the analyst's follow-up questions ("*why you think that the LNG operation or the gas side is not going to be impacted?*" and "*should that still be considered as part of the core for you?*"). Thus, the second interrogative unit is justified not merely by reference to prior statements but by the analyst's active reasoning about the implications of those statements. This reasoning-based contrast pushes the question beyond the simple hearsay-prefaced pattern and toward a more evaluative, interrogative strategy: the analyst uses the company's earlier claims as premises to challenge the coherence of its current categorization of assets.

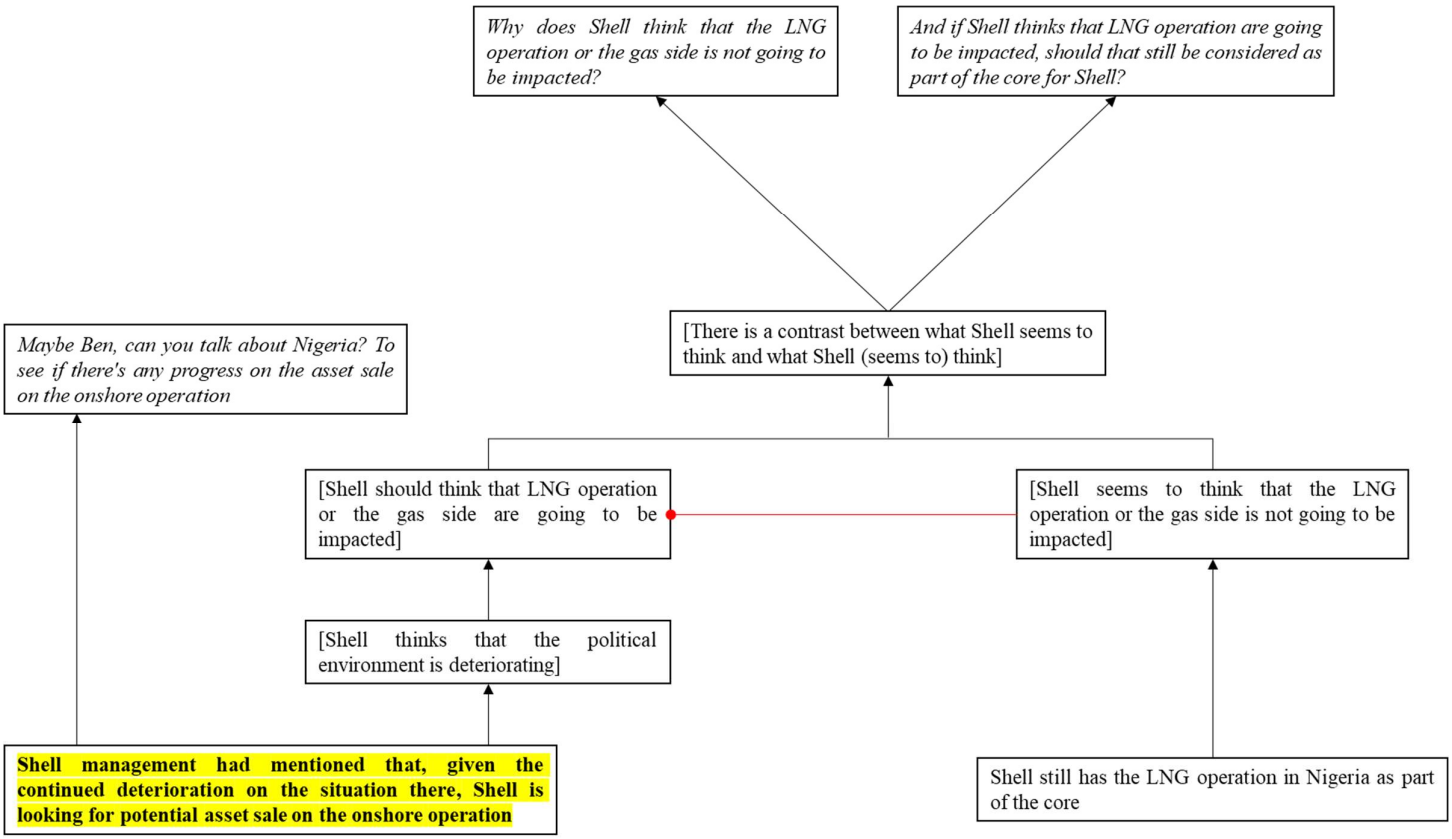


Figure 137. Argumentative structure of the accusation of inconsistency (type 2 – statement-action discrepancy) preface configuration in example (201)

This question can also be interpreted as indirectly highlighting an inconsistency on the part of the managers: while they stated that they intend to divest the onshore operations, the fact that these operations remain part of the core business indicates that no divestment has yet occurred. In this sense, their actions appear to be at odds with their words.

Compared to the accusations of inconsistency employed by political journalists, which were discussed in §4.4.2.2.2 on the basis of the analysis by Clayman and Heritage (2002), analysts in ECCs perform variants of this strategy that are designed to be less aggressive and confrontational. According to the argumentative analyses by Andone (2013a) and Mohammed (2010; 2018), an accusation of inconsistency in the context of political interviews or parliamentary debates functions both to advance a standpoint and to rule out a standpoint advanced by the interlocutor (see §4.4.2.2.2). I suggest that in the ECCs analysed above, and in similar instances, these questions appear to serve a different

purpose. They do not primarily aim to counter or invalidate the managers' statements, and they often allow for the possibility that the two conflicting statements can be reconciled. Moreover, unlike in political journalism, the question is not merely a vehicle for the accusation; it is a genuine request for information. In this context, accusations of inconsistency performed by analysts are better understood as a means of *raising an issue* regarding the manager's statement: they highlight a potential incompatibility with previous commitments without necessarily advancing a counter-standpoint. The strategy functions to prompt clarification, elicit explanation, or resolve ambiguity, rather than to directly challenge or overturn the interlocutor's position. This difference in behaviour is mainly due to the distinct incentives that characterize analysts and journalists, as already discussed in §4.4.3.1. Journalists often seek to advance standpoints of their own, effectively acting as protagonists of contradictory positions, because they are driven both by a persuasive incentive toward their audiences and by an *eristic* incentive toward the political figure. Analysts, by contrast, are primarily guided by an individual critical incentive and therefore tend to maintain the role of pure antagonist as much as possible. They assume the role of protagonist only insofar as this is necessary to test or challenge a managerial standpoint. As already discussed in Chapter 4, the relationship between analysts and managers is fundamentally shaped by an underlying alignment of interests: both parties ultimately share an interest in the company's capacity to create value and, consequently, in the profitability that this value generation entails. Their divergence is therefore not primarily strategic in the broader sense, but rather epistemic, insofar as it concerns differential access to information and the need to scrutinize managerial claims.

9.1. Conclusions

This chapter has introduced and operationalized the concept of *evidential argumentative patterns* – recurring argumentative configurations defined by the presence of evidential frames – as a methodological tool for analysing strategic discourse in ECCs. Building on the theoretical framework established in earlier chapters, I have demonstrated how a bottom-up and corpus-driven approach can identify patterns that are both recurrent and functionally relevant to the activity type. Through quantitative analysis of evidential

distribution across argumentative moves and speaker roles, combined with Chi-squared testing, the study revealed systematic differences between analysts and managers in their deployment of evidential resources. Most notably, exhibit a significantly high use of hearsay evidentials in premises, while managers make greater use of subjective evidentials in conclusions and deploy inferential evidentials more flexibly across complex argumentative structures.

The chapter then focused specifically on *hearsay-prefaced questions* as the most frequent and strategically significant evidential pattern characteristic of analysts' questioning practices. Through detailed qualitative analysis, I identified two main configurations: *simple hearsay prefaces* and *contrastive hearsay prefaces*, with the latter encompassing a continuum from *source-contrast prefaces* to *accusations of inconsistency*. The analysis demonstrated that these patterns are not merely stylistic variations but strategic argumentative constructions that serve analysts' multiple institutional incentives.

Simple hearsay prefaces exemplify how analysts strategically invoke management's own prior statements to ground their inquiries. As demonstrated through examples like (187) and (188), these prefaces function as multi-layered pragmatic arguments that simultaneously: (i) establish the acceptability of the interrogative speech act by satisfying preparatory conditions through an argument from authority (management as the "horse's mouth"); (ii) justify the performance of the questioning act via practical reasoning that demonstrates its relevance; and (iii) strengthen the directive force of the question by increasing interactional pressure on managers to respond. By attributing propositions to management, analysts position themselves as K− while simultaneously constructing managers as epistemic authorities (K+) on the topic and establishing the issue as part of management's accountability domain. This configuration allows analysts to pursue their primary informational goal – acquiring valuable information for accurate valuation – while maintaining the cooperative relationship necessary for ongoing access. The hearsay frame transforms management's prior disclosures into common ground that cannot easily be retracted, making topics more difficult to dismiss while avoiding overt adversarialness.

Contrastive hearsay prefaces represent more complex and potentially confrontational configurations, though analysts consistently employ mitigation strategies to manage face-

threatening potential. In source-contrast prefaces, exemplified by cases like (194)-(196) analysts juxtapose hearsay-marked managerial statements with conflicting information from alternative epistemic sources – typically inferential frames. This construction highlights apparent inconsistencies or gaps that require resolution, creating argumentative exigences that compel substantive responses. For instance, when in example (195) the analyst contrasts management's report of "stable" listings with their observed "encouragement", the hearsay frame legitimizes the contrast while the question presupposes that managers possess undisclosed information explaining the apparent discrepancy. This pattern enables analysts to fulfil their critical incentive while the interrogative framing and presupposition of possible reconciliation mitigate adversarialness, protecting the relational incentive.

The more confrontational end of the continuum are accusations of inconsistency, where analysts identify contradictions either between different managerial statements or between stated intentions and actual actions. Example (200) illustrates this configuration: the analyst meticulously invokes prior statements through multiple hearsay frames, establishing an authoritative textual basis, then juxtaposes these reassurances with management's corrective actions that implicitly acknowledge systemic problems. Yet even here, the formulation "*I wonder how that tallies*" frames the inconsistency as a puzzle requiring clarification rather than as deliberate misrepresentation, while the follow-up question "*Is that correct?*" invites explicit commitment without direct accusation. This strategic ambiguity reflects analysts' navigation of conflicting incentives: on the one hand, critically scrutinizing and evaluating managerial standpoints, in line with their fiduciary duty toward investors; on the other hand, avoiding the deterioration of relationships with managers, especially given that their disagreement is primarily epistemic and that both parties ultimately share the same interest in the company's financial health (see §4.4.3 and §4.4.3.1).

The argumentative reconstructions throughout the chapter revealed that hearsay evidential frames function not merely as topic introducers but as complex micro-arguments that work at multiple levels simultaneously. At the level of content, they invoke the locus from authority to support the reliability of reported propositions. At the

pragmatic level, they justify the illocutionary act through both definitional inference (satisfaction of preparatory conditions implies the act can be performed) and practical reasoning (relevance justifies performance).

This multi-functionality explains why hearsay-prefaced questions constitute a characteristic pattern of the ECC activity type: they optimally address the competing incentives analysts face. The pattern supports informational goals by legitimizing requests for elaboration and signalling knowledge gaps that justify inquiry. It enables critical scrutiny by making topics more cornering through invocation of management's own commitments, creating accountability without overt accusation and, crucially, it protects relational objectives by framing questions as attempts to understand information management has already flagged as significant, thereby mitigating face-threats through negative politeness strategies. All in all, hearsay frames thus function as a strategic resource that allows analysts to realize their interactional goals in ECCs.

The distribution of subtypes further confirms these strategic orientations: the predominance of simple hearsay prefaces (81%) reflects analysts' generally cooperative stance, consistent with their relational incentive and the institutional norms of ECCs. The significant minority of contrastive prefaces (19%) demonstrates that analysts do engage in more challenging questioning when necessary to fulfil their critical function but consistently deploy mitigation strategies to contain adversarial potential. This balance distinguishes analysts from journalists in political press conferences, who face different institutional pressures and can adopt more overtly confrontational approaches without risking future access.

In sum, the evidential argumentative pattern of hearsay-prefaced questions emerges as a defining feature of analysts' discourse in ECCs precisely because it enables them to balance the competing demands of their institutional role: acquiring information to reach an accurate valuation of the company (in argumentative terms, solving the *evaluative issue*), ensuring accountability, demonstrating expertise, and maintaining access. The pattern's significance lies not in any single feature but in how the hearsay frame integrates with the prefatory structure to create a flexible argumentative resource that can be

calibrated along a continuum from cooperative elaboration requests to more challenging accountability questions, always within the boundaries of institutional appropriateness.

It also reveals that analysts are not merely arguers *per accidens*, but function as genuine and active arguers within ECCs. More often than not, they operate as *dialectical arguers*, insofar as they heuristically use questions to open issues and to elicit standpoints, premises, and lines of reasoning from managers. In this respect, they fully assume the role of dialectical arguers engaged in a process of collaborative, yet critical, reasoning. At the same time, analysts also argue actively in a more rhetorical sense, particularly when they justify their questions by demonstrating their relevance – not only as requests for information, but as acceptable argumentative moves that are pertinent to the critical discussion unfolding in the interaction. Indeed, analysts' questions are consistently tied to the overarching argumentative nature of ECCs, which are fundamentally oriented toward resolving a higher-order evaluative issue concerning the valuation of the company and the trustworthiness of managerial claims (see §4.4.2.2 and §4.4.2.3). These evaluative issues are, in turn, instrumental to the superordinate practical issue that analysts ultimately need to address, namely whether it is advisable for investors to initiate, maintain, or withdraw an investment in the company (see §4.3.2 and §4.4.2.2).

The chapter's findings contribute both methodologically and empirically to our understanding of evidentials in argumentation. Methodologically, the integration of corpus-driven pattern identification with detailed Pragma-Dialectical and AMT reconstruction demonstrates how large-scale quantitative analysis and fine-grained qualitative analysis can be productively combined. The statistical validation of distributional patterns through chi-squared testing provides empirical grounding for claims about characteristic configurations, while the argumentative reconstructions reveal the inferential mechanisms and strategic functions that explain why these patterns emerge as significant in the activity type.

Empirically, the analysis advances our understanding of how evidentials function in institutional argumentation beyond their basic epistemic marking functions. The hearsay-prefaced question patterns demonstrate that evidentials are not merely markers of information source but strategic argumentative resources that participants exploit to

navigate complex institutional incentives. The evidential choice is inseparable from the argumentative configuration in which it appears: hearsay frames in analyst prefaces function argumentatively because they invoke authority while managing epistemic positioning and politeness, and they do so within the specific institutional context where information asymmetry and argumentative roles are defining traits of the interaction. This finding suggests that any adequate account of evidentiality in discourse must attend not only to semantic and epistemic dimensions but also to the pragmatic, argumentative, and institutional work that evidentials perform.

10.Conclusions

This dissertation has investigated the (strategic) use of evidentials and their argumentative functions in the activity type of earnings conference calls. Situated at the intersection of linguistics, argumentation theory, and financial communication (§1.1), the study has examined evidentiality from three complementary angles: its distribution and functional significance across participant roles, explored in Ch. 7; its relationship to argumentation structures and argument schemes, discussed in Ch. 8; and its role in constituting evidential argumentative patterns that reflect the institutional dynamics of the ECC activity type, investigated in Ch. 9 through the analysis of an exemplary *evidential argumentative pattern*.

The overarching aim has been to shed light on the argumentative functions of evidentials in ECCs, showing how these markers can be strategically employed by analysts and managers in pursuing their goals.

The following sections retrace the main findings in relation to each of the four research questions, before offering a broader theoretical reflection on their implications and identifying directions for future research.

10.1. Summary of findings

10.1.1. Research Question 1: *How are evidentials employed in earnings conference calls by managers and analysts?*

The first research question, addressed in Chapter 7, was structured around three sub-questions concerning the distribution of evidentials across participant roles (Q1.1), the correlation between evidential type and speaker role (Q1.2), and the relationship between evidential use and interactional goals (Q1.3).

The corpus-level distributional analysis established that subjective evidentials are the most frequent category, followed by inferential, and direct and hearsay evidentials in roughly equal proportions, with common knowledge markers being marginal. The predominance of subjective and inferential evidentiality reflects the prospective and

evaluative orientation of ECCs, in which participants routinely engage in forecasting, interpreting signals, and projecting future developments. The rarity of common knowledge markers is explained by the shared expert status of ECC participants: flagging shared professional knowledge as common ground is largely unnecessary, and potentially backfiring, as marking content as shared can paradoxically signal that its status as shared is not, in fact, taken for granted.

At the level of speaker roles, significant differences emerge. Managers use direct and especially subjective evidentials at higher rates, while analysts show a marked preference for hearsay and, to a lesser degree, inferential evidentiality. This distribution was confirmed to be statistically significant through Chi-square testing, supporting the hypothesis advanced in Q1.2: *evidential type and speaker role are systematically correlated*.

The inventory of epistential expressions (§7.2) revealed 145 distinct lemmas realizing 2369 tokens, with two lemmas (TO THINK and TO SEE) accounting for nearly half of all instances. The analysis also identified genre-specific evidential expressions that belong to a specialized evidential repertoire typical of ECCs not retrievable through standard lexicographic approaches, underscoring the value of corpus-driven, bottom-up methodology.

The answer to Q1.3 integrates distributional findings with qualitative discourse analysis. Managers emerge as epistemic authorities who construct an image of privileged insider access through direct evidentiality while simultaneously using subjective evidentials to hedge forward-looking statements, thereby managing both credibility and liability. The frequent use of *Speaker + Other* cognizer frames further enables managers to project organizational cohesion while distributing epistemic responsibility. Analysts, by contrast, function as what the chapter has termed “mediated authorities”: institutionally constrained epistemic agents who rely on hearsay and inferential evidentiality to legitimize their questions by grounding them in managerial prior discourse or in publicly available inferences. Taken together, the complementary evidential profiles of managers and analysts mirror the asymmetric epistemic structure of the ECC activity type, in which managers are positioned as authoritative insiders and analysts as expert outsiders.

10.1.2. Research Questions 2 and 3: *The argumentative functions of evidentials and their connection to the activity type*

Research Questions 2 (*To what argumentative moves and argumentative patterns are evidentials related?*) and 3 (*How are the uses of evidentials, in relation to moves and patterns, connected to the features of the activity type of earnings calls?*), addressed across Chapters 8 and 9, focused more specifically on the argumentative functions of evidentials, examining how evidentials relate to argumentative moves and patterns, and how these relationships are connected to the institutional features of the ECC activity type.

The quantitative analysis in Chapter 8 demonstrated that *evidentials tend to occur within argumentative move*s and that *different evidentiality types are associated with distinct argumentative moves*. Specifically, direct, hearsay, and common knowledge evidentials are statistically associated with premises, while inferential and subjective evidentials are associated with conclusions. This macro-level finding was complemented by a fine-grained qualitative analysis of micro-argumentative functioning. Direct evidentials were shown to function as micro-arguments appealing to the *locus from testimony*, reinforcing the truth of a subordinated proposition through an ancillary argument from the speaker's personal access. Hearsay evidentials were reconstructed as arguments from authority, with a proposed new variant – the *locus from horse's mouth* – to capture cases where the reported source is the person most directly concerned, such as when analysts quote management's own prior statements. Inferential evidentials were shown to function differently depending on whether the inferential source is made explicit: when the source is propositionally recoverable, the inferential evidential makes the reasoning path transparent; when the source is implicit or non-propositional, the inferential frame constitutes a ReInf argument whose warrant remains undefined. Subjective evidentials in premises were reconstructed as *arguments by authority* grounded in the speaker's personal expertise, functioning rhetorically to discourage the antagonist from raising counterarguments or questioning the underlying knowledge source, while in conclusions they serve as standpoint indicators rather than arguments in themselves. Common knowledge markers, though rare, frame premises as shared assumptions, and

were analysed as compatible with both definitional loci and authority loci, and are susceptible to fallacious readings as *ad populum* arguments.

Chapter 9 extended this analysis to the level of *evidential argumentative patterns* - recurring configurations defined by the intersection of evidential type, argumentative move, and speaker role. The quantitative analysis confirmed systematic asymmetries: *analysts predominantly use hearsay evidentials in premises*, while *managers make greater use of subjective evidentials in conclusions* and deploy inferential evidentials more flexibly across complex argumentative structures.

The chapter then focused on *hearsay-prefaced questions* as the most frequent and institutionally significant evidential pattern in analysts' discourse. Two main configurations were identified: *simple hearsay prefaces*, in which management's prior statements are invoked to ground and legitimize an inquiry, and *contrastive hearsay* prefaces, in which reported management statements are juxtaposed with conflicting information from alternative sources – ranging from *source-contrast prefaces* to more confrontational *accusations of inconsistency*. In both cases, the hearsay frame functions simultaneously as an argument from authority (validating the reported proposition), a justification of the illocutionary act (demonstrating the question's relevance and appropriateness), and a politeness strategy (framing the inquiry as a request for clarification rather than an accusation). As highlighted in Ch. 9, the justification of questions in ECCs – although formally realized through the demonstration of analysts' lack and need of information and of the relevance of this information for the financial community – is not merely a justification of an interrogative move, such as a "normal" question in interaction. Rather, it constitutes the justification of a question as an argumentative move, namely as a relevant contribution within a critical discussion, which also foregrounds the respondent's obligation to answer as a consequence of the participants' argumentative commitments and of the shared joint goal of ECCs, as discussed in §4.4.2.

10.1.3. Research Question 4: How are activity type, argumentative indicators, and argumentative patterns related?

The fourth research question is the most theoretical in scope, inviting a reflection on the conceptual relationships among the three key constructs developed across the dissertation: *activity type*, *argumentative indicators*, and *argumentative patterns*.

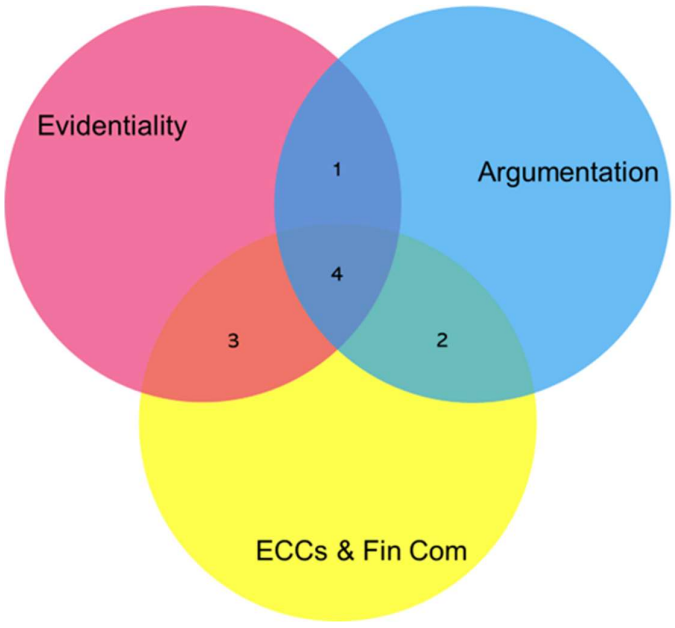
The findings reported in Chapters 7, 8, and 9 collectively demonstrate that these three levels are closely interconnected, each shaping and illuminating the others. The institutional features of the ECC activity type – the epistemic asymmetry between managers and analysts, the competing incentives of information acquisition, critical scrutiny, and relational management – generate systematic pressures on participants' linguistic and argumentative choices. In this sense, the characteristics of the activity type shape the selection of specific argumentative indicators – as they constrain the vocabulary of expressions employed – as well as of argumentative strategies and configurations. Argumentative patterns consist exactly of those argumentative configurations that are motivated by these pressures and by the dynamics of the activity type, and in this sense are essentially defined by the activity type itself. At the same time, this relationship is not unidirectional: the distribution of argumentative indicators as well as the recurring patterns they construct also provide empirical insight into the nature of the activity type, sometimes revealing dimensions and interactional dynamics that are not fully captured by its prior theoretical characterization. Lastly, argumentative indicators and argumentative patterns are strictly related as argumentative patterns can be defined, as it is the case of evidential patterns, by the presence of specific indicators. Evidentials, in this sense, are not only *indicators* of the presence of certain patterns but are *defining elements* of them, working as what Rocci defines *direct* indicators, as they tell "something about the arguments being put forth in discourse" (Rocci, 2017:10; see also §2.4.6) – in this case, deifining the *argumentative pattern* put forth.

Importantly, also such indicators-defined patterns and the specific type of indicators are shaped by the activity type. The presence of some specific *evidential argumentative patterns* in ECCs is motivated in this sense exactly by the characteristics of ECCs themselves, namely that these patterns are useful to participants to reach their specific

interactional goals. For instance, the use of hearsay-prefaced questions, as discussed in Ch. 9, is strategic for analysts to realize their objective and to do so it leverages on the managers' interests, such as emerge as epistemic authorities and do not appear as inconsistent. In this sense, the predominance of this strategic pattern in analysts' discourse is not merely an accidental linguistic fact, but it is rather an institutional one: it reflects the specific constraints, roles, and goals that define the ECC as a genre. The pattern emerges precisely because it optimally addresses the competing demands analysts face, and its recurrence across the corpus confirms that it constitutes a conventionalized, genre-specific communicative resource. Argumentative patterns thus serve as empirical windows onto the institutional dynamics of the activity type. Indeed, as highlighted above, the identification of such patterns is revelatory of certain dimensions of the activity type, and the observation of evidential argumentative patterns feeds back into the characterization of the activity type itself.

10.2. Contribution to the research gaps

Going back to the research gaps outlined in 1.2 (see also Fig. 1, reported below for clarity), we can try to outline the broader significance of this work and the contribution it offers to the various intersections identified.



Firstly, concerning the intersection between evidentiality and argumentation (1), the study advances existing scholarship by systematically linking evidentials' role as argumentative indicators with the inferential configurations they realize, thereby bridging the previously separated micro- and macro-argumentative dimensions. The reconstruction of evidential micro-arguments based on the Argumentum Model of Topics shed more lights on the inherent semantic of evidentials as well as on their pragmatic functions.

At the intersection between argumentation and financial communication (2), the study enriches the study of ECCs by deepening the understanding of the argumentative strategies employed by managers and analysts and connect them to the characteristics of the activity type. It has also emerged that analysts' questions not only are strategically formulated to realize their interactional goals but also work as heuristic devices aimed at solving sub-issues that are relevant for the resolution of the overarching evaluative implicit issues. In this sense, although analysts' questions do not prima facie appear as argumentative, they are actually strictly connected to the general argumentative nature and dynamics of ECCs. Moreover, the analysis showed how analysts – in this context – act as *dialectical arguers* who are actively engaged in the argumentative exchange.

More specifically, this dissertation demonstrates that recurrent questioning strategies – most notably hearsay-prefaced questions – constitute genre-specific argumentative patterns shaped by institutional commitments rather than reducible to impression management alone.

At the intersection between evidentiality and financial communication (3), this dissertation provides the first extensive qualitative, corpus-driven mapping of the genre-specific evidential repertoire of ECCs, uncovering specialized constructions and role-sensitive distributions that lexicon-based approaches would miss. The quantitative analysis reveals patterns of use of evidentials by managers and analysts, showing how these markers unveil the epistemic asymmetry between the two parties, while the qualitative analysis reveals the two different epistemic profiles of the participants. The dictionary compiled in this study can serve as a useful resource for future research of epistemicity in financial discourse.

More generally, concerning the intersection among these three fields (4) that constitutes the specific gap this research addresses, this dissertation shows that evidentials in ECCs are not merely markers of information source, but strategic argumentative resources through which participants justify propositions and position themselves epistemically. In doing so, the thesis closes the previously unaddressed gap by integrating, within a single framework, the micro-level reconstruction of evidentials as arguments and indicators, the macro-level analysis of their distribution across argumentative moves and recurring patterns, and the activity-type constraints specific to ECCs that motivate these uses. Ultimately, by connecting all three subsets through the central overlap, the thesis not only refines our understanding of how knowledge-source marking functions in financial dialogue but also offers a transferable model for investigating how linguistic indicators, argumentative practices, and institutional interaction mutually constitute one another.

10.3. Theoretical and methodological contributions

This dissertation provides a detailed empirical account of evidential use in a professional genre that has not previously been examined from this perspective, methodologically demonstrating that the ECC constitutes a rich and analytically productive domain for the study of epistemic and evidential strategies. The identification of genre-specific evidential expressions further underscores the importance of corpus-driven, onomasiological approaches to evidentiality that do not presuppose a fixed lexical inventory.

Within argumentation theory, the study advances the analysis of evidentials as argumentative resources by introducing a more fine-grained characterization of the argument schemes they instantiate, by proposing new analytical tools such as the *locus from horse's mouth*, and by operationalizing the concept of evidential argumentative patterns as a methodological framework for connecting linguistic form, argumentative function, and institutional context. The integration of Pragma-Dialectical reconstruction with corpus-driven pattern identification offers a model for combining qualitative and quantitative approaches in the study of argumentation in discourse.

Methodologically, it also shows that identifying patterns through quantitative analysis provides grounding for qualitative reconstructions that reveal the inferential mechanisms and strategic functions underlying those patterns. The integration of macro-level corpus analysis and micro-level argumentative reconstruction constitutes the core methodological contribution of this dissertation.

Lastly, as anticipated in §1.2, this work also contributes to research at the interface with argument mining by showing how evidential markers can support the automatic identification of argumentative structure. The results suggest that evidentials function as argumentative indicators of moves and reveals that they work as indicators of micro-argumentative strategies and specific patterns. In this perspective, this dissertation further suggests that evidentials may constitute a particularly valuable resource for argument mining and automated discourse analysis. Their relevance lies first in their function as argumentative indicators. Unlike lexical connectives, whose usefulness has been extensively demonstrated for the recognition of rhetorical and coherence relations, evidentials may offer a stronger predictive advantage for argumentation because they are capable of signalling premise-conclusion dependencies beyond local adjacency constraints (Musi, 2015). Evidentials do not merely indicate the likely presence of an argumentative move; they may also impose restrictions on the inferential configuration at stake, thereby contributing to the identification of argument schemes, which remains one of the most challenging subtasks in argument mining. As both Musi (2015) and Musi and Rocci (2017) argue, evidential and modal expressions can constrain the type of reasoning underlying a standpoint by signalling the nature of the inferential source – whether observational, inferential, reportative, or authority-based. This is especially relevant given that automatic recognition of argument schemes remains a major bottleneck in argument mining pipelines, partly due to the scarcity of corpora annotated at both structural and inferential levels (Musi, 2015; Musi and Rocci, 2017) and partly because interoperable representations of argument structure remain underdeveloped (Gemechu et al., 2025b). In this perspective, evidentials may provide high-value linguistic anchors that help bridge local move identification with higher-order inferential classification. At the same time, the findings of this dissertation underline a crucial methodological implication: the predictive

value of evidentials is fundamentally context-dependent. Their indicative force varies across institutional domains, discourse genres, and interactional settings, and even highly recurrent forms may display distinct argumentative functions depending on the communicative context in which they occur. Some evidential expressions are tightly associated with specific professional fields or activity types, while others require fine-grained semantic disambiguation because their argumentative role shifts according to co-text and discourse purpose. For this reason, the integration of evidentials into argument mining workflows should not rely on decontextualized lexicons, but rather on domain-sensitive and genre-aware models capable of capturing context-specific argumentative routines.

10.4. Limitations and directions for future research

Several limitations of the present study point toward productive directions for future inquiry.

First, the corpus, while designed to ensure comparability across four major companies, remains limited in scale and variety. Extending the analysis to a larger and more diverse corpus – spanning a broader range of industries, national and cultural contexts, company sizes, and time periods – would allow for a more robust assessment of the generalizability of the patterns identified here. Moreover, it would allow comparative research, which could shed light on how the use of evidentials change according to various factors and how is influenced by specific contextual features. In particular, diachronic variation in evidential strategies remains entirely unexplored: it is plausible that the deployment of evidential resources shifts in response to changes in regulatory frameworks, market conditions, or evolving norms of corporate communication. A longitudinally extended corpus would make such variation accessible to systematic investigation, allowing us to distinguish stable evidential uses from context-sensitive ones, in order to see which markers persist across periods and which emerge or decline in response to changing conditions. Moreover, from a more specifically linguistic perspective, investigating evidentials diachronically makes it possible to trace how their meanings emerge, stabilize,

broaden, shift, or eventually disappear over time, thus offering important insights into processes of semantic change and grammaticalization of language in a specific context.

The present study has necessarily maintained a broad comparative scope, examining all five evidential categories across both participant roles. This breadth has come at the cost of depth in the treatment of individual evidential types. Future research could profitably focus on specific categories in greater detail. In particular, a more sustained investigation of subjective and inferential evidentials and their functions – the two most frequent categories in the corpus – could further elucidate their role in displaying and managing informational asymmetry in dialogue. Subjective evidentials, as shown in Ch. 8, can function as arguments by authority grounded in personal expertise, yet the conditions under which such appeals are considered reasonable or fallacious within the norms of financial discourse remain underexplored. Inferential evidentials, on the other hand, raise complex questions about the reconstruction of implicit inferential chains and the degree to which interlocutors can challenge the reasoning they presuppose. A detailed and quantitatively wider investigation of these two types, both in managers' and analysts' turns, could provide a more complete account of how epistemic authority and informational asymmetry are constructed and negotiated across the ECC interaction. In turn, as discussed in §1.5.2 (see also §4.4.4 for the relevance of knowledge management in ECCs), the study of discursive management of knowledge, epistemic authority and asymmetry is crucial in understanding strategic communication in the genre of ECC – and in financial discourse in general. This allows not only to better characterize discourse strategies of managers and analysts, but it also potentially offers insights for financial communication professionals.

A related and equally promising direction concerns the analysis of responses to evidential argumentative patterns – that is, the (counter-)argumentative moves through which speakers answer to, challenge, downgrade, or reframe the evidential sources invoked by their counterpart. The present study has focused primarily on the production of evidential patterns in analysts' turns, but the sequential dimension of their negotiation remains largely unexplored. As briefly illustrated in §9.2.2 (examples 196-197), managers can respond to analysts' hearsay-prefaced questions by explicitly downgrading the

invoked source – for instance, by recharacterizing it as a mere "rumour" (ex. 197) – thereby undermining the argumentative weight of the analyst's hearsay frame. Systematically analysing such moves would open a rich line of inquiry into how sources and their relevance are negotiated interactionally, how epistemic authority is negotiated and even contested across turns, and how the argumentative force of evidential patterns is ratified or reframed in the unfolding dialogue. Such an analysis would bring the study closer to a fully dialogical account of evidentiality in institutional argumentation.

Also, the qualitative analysis of argumentative patterns in Chapter 9 focused primarily on analysts' hearsay-prefaced questions as the most frequent and institutionally significant configuration. While this choice was justified by the salience and strategic relevance of that pattern, as well as by time and space limitations, it inevitably left other configurations underexplored. Future research should extend the analysis of evidential argumentative patterns to managers' turns, where subjective and inferential evidentials appear to play a structurally significant role in conclusions. Examining how managers deploy these resources across different argumentative moves and strategies – for instance, in responding to analysts' challenges, in framing forward-looking statements, or in managing transitions between prepared remarks and the question-and-answer segment – would provide a more detailed account of the strategic use of evidentials across the full interaction. More broadly, a systematic exploration of the full range of evidential argumentative patterns that occur in the corpus, rather than a focused analysis of the most prominent ones, would offer a richer empirical basis for claims about the relationship between evidential form, argumentative function, and institutional role.

Beyond these primary limitations, two further lines of inquiry deserve mention. First, the interaction between evidential strategies and other types of argumentative and epistemic markers – such as hedges, connectives, and meta-discursive expressions – remains to be explored and could contribute to a more integrated account of the linguistic resources through which argumentation is constructed in ECCs.

A last further limitation concerns the scope of the analysis, which has focused on the internal discourse of ECCs without examining their downstream consequences. Future

research could investigate the relationship between the argumentative strategies identified here – and the evidential patterns through which they are realized – and the outputs they are designed to influence, most notably analysts' reports, earnings forecasts, and stock price reactions. Connecting linguistic and argumentative features of ECCs to financial and econometric outcomes would allow researchers to assess the practical impact of evidential and other discursive strategies on market behaviour and would open a productive dialogue between discourse analysis and financial research. Such an interdisciplinary line of inquiry could, for instance, examine whether the density or type of evidential framing in managers' presentations correlates with forecast accuracy, analyst rating changes, or abnormal trading volumes in the post-call period.

10.5. Concluding remarks

This dissertation has argued that evidentials in earnings conference calls are not merely markers of information source but strategic argumentative resources through which participants navigate the institutional constraints, epistemic asymmetries, and interactional goals that define the ECC as an activity type. By combining corpus-driven distributional analysis with Pragma-Dialectical and AMT-based reconstruction, the study has shown that evidential choices are systematically patterned at multiple levels: across participant roles, across argumentative moves, and across recurring configurations that reflect the institutional logic of the genre.

The concept of evidential argumentative patterns, developed across Chapters 8 and 9, offers a framework for connecting linguistic micro-analysis to macro-level institutional description – one that may prove applicable to other institutional genres and other types of argumentative indicators. More fundamentally, the study has demonstrated that any adequate account of evidentiality in discourse must attend not only to its semantic and epistemic dimensions but also to the pragmatic, argumentative, and institutional work that evidential choices perform. Evidentiality is thus inseparable from the social and institutional contexts in which it is deployed.

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12. Appendix 1: Annotation manual for Epistential frames

12.1. Aim and perspective of the scheme.

The present scheme serves to annotate *epistential frames* (for a definition, see below) in Earnings conference calls (ECCs). Our purpose is to capture and map **WHO KNOWS WHAT** and **HOW HE KNOWS THAT**. The greater goal of the research is to correlate markers of knowledge (evidentiality markers and indicators of epistemic modality) with other features (e.g., argumentative moves or role of the speaker).

The different features and types are designed to **fulfill the needs of this research** and **suited for the particular genre of ECCs**.

The terminology and the typology proposed is meant to reflect such needs and to better represent the concepts of the Authors.

The specific annotation practices and the concrete implementation in the platform of INCEpTION responds to both the needs of the research conducted – reflecting the relevant concepts and theoretical choices – and the affordances and constraints of the platform.

We are presenting and detailing here the LAYERS with the respective features and the *values* associated to each feature.

12.2. The notion of Epistential frames

As just said, aim of the research is to identify the different strategies used in the financial dialogues to indicate knowledge attribution and sources. For this reason, we opted for an **onomasiological** and **corpus-driven approach**: instead of relying on literature-derived dictionaries, we proceeded identifying in the corpus expression having an evidential or epistemic modal function.

Starting from previous literature on epistemicity classification and annotation (Chafe & Nichols, 1986; Bednarek, 2006; Lavid et al., 2016; Musi & Rocci, 2016; 2017; Pietrandrea, 2018) we elaborated an annotation scheme for **epistential frames**, adopting a "broad" definition of evidentiality as "*attitude to knowledge*" (Chafe & Nichols, 1986).

The notion of ***epistentials***, introduced by Faller (2002), indicates **linguistic expressions that carry either an evidential or an epistemic modal function, or both at the same time**. We adopted this term as we are interested in identifying expressions that have an evidential and/or an epistemic modal function, also since these dimensions are often difficult to disentangle.

We also use the term ***frames***, following (Miecznikowski, 2020), to indicate **predicate-argument(s) structures representing an *epistemic experience***, i.e., a knowledge acquisition experience by a subject, in which the *cognizer* (the subject of the knowledge process), the *scope* (the propositional content under the scope of the epistential expression, which constitute the fact or piece of reality object of the knowledge), and the *source* (the

element through which the cognizer knows the content) are arguments of the predicate constituted by the *operator* (the epistential expression).

Different studies on epistemic modality show that modal verbs work as **relational operators**; Musi (2017) proposes, in the light of Rocci (2008) and (2012), that "the verb (…) links the proposition in its scope to an anaphorically available premise". Along the same line, Pietrandrea and Cervoni (2016) state that "epistemic constructions can be regarded as those **constructions** that **signal the process of construction of mutual knowledge, mutual beliefs, and mutual assumptions**."

12.3. Evidentiality. Some theoretical background

The category of *evidentiality* has been, in the literature, defined and interpreted in different ways and several questions still under discussion. In this work, we do not aim at contributing to this debate, nor at giving a solution for the theoretical issues around evidentiality. Rather, we want to propose and illustrate a definition and classification of evidentials that suits the particular research we are conducting, namely, an observation of how speakers in ECCs signal their knowledge and sources (and how this dimension interacts with argumentation).

For this reason, we propose here, after a brief summary of the definitions and classification functional to our work, a taxonomy of evidentiality types applicable to the specific context and genre.

12.3.1. Definitions and taxonomies of evidentiality

In first studies on anthropolinguistics (Sapir, 1921; Lee, 1938) there is already the indication of a semantic category of information source, but the term *evidential* is introduced for the first time in 1947 by Franz Boas to indicate a small group of suffixes that "expresses source and certainty of knowledge" (Boas 1947: 206). At this stage, evidentiality is still intended only as a grammatical category (as we are about to see, some scholars still today have a narrow definition of evidentiality as grammatical system). A fundamental contribution is represented by Chafe and Nichols' volume *Evidentiality: The Linguistic Coding of Epistemology* (1986). In this pivotal collection, they define evidentiality as the specification of "*modes of knowing*", namely that the function of evidentials is that of signaling *how* a certain knowledge is acquired.

Although right from the very beginning some kinds of classification were proposed (Jacobson (1957) already distinguished *direct* and *indirect* evidentiality; Sapir (1921) envisioned a tripartition of knowledge, "*by actual experience, by hearsay, by inference*"; Givón (1982) and Chung and Timberlake (1985) identify four subcategories) none of these categorizations was providing a hierarchically structured taxonomy. The first instance of organized classification of evidential values can be identified in the work by Willett (1988), which classifies the *types of evidentiality*, notion that follows that of *modes of*

knowing by Chafe. Willett proposes a higher-level distinction between *direct* and *indirect* evidentality types; the former comprehends three subcategories, namely *visual*, *auditory* and *other sensory*, and the latter two subcategories, *reported* and *inferring*, which in turn include, respectively, *second hand, third hand* and *folklore*, and *results* and *reasoning*.

Four years later, Frawley proposes a model that has a different concept at its own basis, that is the *source of evidence*, where this can be the *Self* or the *Other*. The other parameter for classification is, then, the *directionality to the source of evidence*, and as results the four categories are "From the Self", "To the Self", "From the Other", "To the Other". Interestingly, in this classification a dimension of strength of the knowledge is envisioned (something that is more strictly connected to epistemic modality).

These two models are subsequently integrated in Plungian's work (2001), where the two main categories of *direct* and *indirect evidence* are then divided, respectively, into *visual* and *non-visual* – in turn divided into *sensoric* and *endophoric* – and *reasoning* and *inference* – and its subcategories of *synchronic* and *retrospective inference*.

In 2004 Aikhenvald publishes the monography *Evidentiality*, another fundamental work, which systematize the previous work on the subject. Aikhenvald proposes a narrow interpretation of the category of evidentiality, which is considered a grammatical system, and therefore excluding lexical strategies. In contrast, Boye and Harder (2009) propose a wider conception, arguing for a functional definition of evidentiality instead of a grammatical one.

The classification the linguist proposes encodes five categories: *visual*, *non-visual sensory*, *inference*, *hearsay* and *quotative*, where hearsay includes "reported information with no reference to those reported by", while quotative includes also an "overt reference to the quoted source" (Aikhenvald, 2004).

Plungian (2010) proposes a scheme that, building on Aikhenvald's classification, reorganizes evidential values in a system that assimilates and integrates several previous works. A worth mentioning point is that in this classification the author introduces the category of *common knowledge*.

Nuyts (2001) introduces the class of *subjectivity* as a separate evidential category in the light of Lyon's definition of the dimension of subjectivity (1977). We would like to connect this category with an observation made by Squartini (2008) who highlights that, in inferential processes, some premises could be accessible only to the cognizer-experiencer.

12.3.2. The notion of territory of knowledge

Even though it is not strictly related to the literature and field of evidentiality studies, a notion that is important mentioning to illustrate our conception and taxonomy of evidentiality is that of *territories of information* (Kamio, 1997) or *territories of knowledge* (Heritage, 2012). Kamio argues that in conversation both speaker and hearer have

territories of information – or *epistemic domains* (Stivers and Rossano, 2010) – meaning that they have access to different knowledge. An information can be shared by both or can pertain to the territory of knowledge of only one (or a subset) of the participants. In dialogue, we represent this access to knowledge in many various ways, establishing the different epistemic territories. Heritage (2012) highlights that interactants "occupy different positions on an epistemic gradient" and that constantly update their territory by interactional contributions.

Different linguistic devices and strategies can be used to build knowledge territories and to attribute different knowledge to participants. Although this is not the evidentials' main function, we can say that the use of certain evidential strategies can also contribute to establishing and representing one's own territory of knowledge, as well as someone else's (mainly, the other participants').

12.4. Annotation scheme

The present annotation scheme includes two layers: EPISTENTIAL FRAMES (EF) and EPISTENTIAL SPAN (ES).

The EF layer is meant to annotate the different components of the frames (namely, *operator*, *cognizer*, *source* and *scope*), while the ES layer serves to annotate the chunk of text containing at least one Epistential frame.

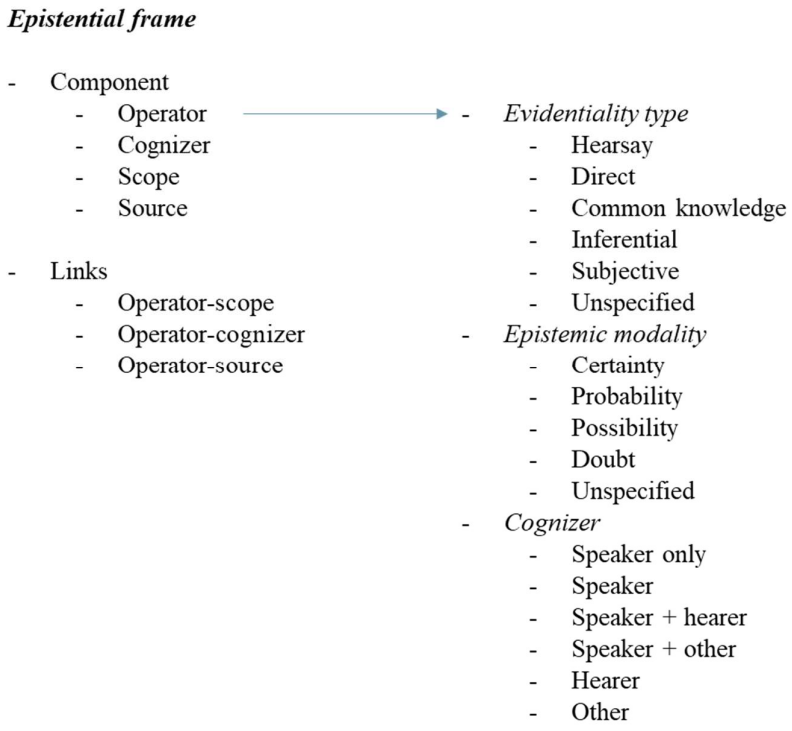
We are illustrating the different FEATURES of each layer, and each ***value*** of such features.

Examples are given to better illustrate both the concepts and the practice of annotation. In round brackets are indicated the different annontation chunks pertaining to the components. As often in one sentence there are more than one epistential frame as well as pieces of text not pertaining to epistential frames, we indicate those parts of the sentences that are not relevant for the example in square brackets.

We also indicate some best practices for annotation in the **"How to" paragraphs**.

12.4.1. Epistential Frames layer

The EF layer comprehends four features: COMPONENTS, EVIDENTIALITY TYPE, EPISTEMIC MODALITY and COGNIZER. The last three are annotated only on Operators. A relational feature (LINKS) is also annotated.



12.4.1.1. COMPONENTS

The Components of an EPISTENTIAL FRAMES are the following:

- ***Operator***: the operator is the term or expression that vehicles the evidential and/or epistemic meaning. Other terms used in the literature are *trigger* (Pietrandrea, 2016; Pietrandrea & Cervoni, 2016; Ghia et al., 2016; Hendrickx et al., 2012) and *marker* (Pietrandrea, 2018). We chose to adopt the term *operator* as it's more consistent with the frame construction conception and refers back to the idea of predicate-argument structures.
- ***Scope***: the scope is the piece of knowledge, the fact or part of reality that is known, and correspond to the propositional content under the scope of the operator – the *what*

of *who knows what*.

In the literature, we also find the term *target* (Pietrandrea, 2016; Pietrandrea & Cervoni, 2016; Ghia et al., 2016; Hendrickx et al., 2012) – evidently in correlation with *trigger*; we use instead the term *scope* (already in Pietrandrea, 2018) as better fits with the constructional conception. It also more clearly indicates that, syntactically, the piece of knowledge is an argument *under the scope* of the predicate *operator*.

- ***Cognizer***: the cognizer is the person, entity or group that knows the fact in the scope – *the who*.
- ***Source***: the source is the element or person thanks to which the cognizer knows the fact – *how* he knows that.

(202) (In the letter)$_{\text{SOURCE}}$, (you)$_{\text{SOURCE}}$ (mentioned)$_{\text{OPERATOR}}$ (that same-store sales for your merchants is up about 35%.)$_{\text{SCOPE}}$

(203) (I)$_{\text{COGNIZER}}$ (assume)$_{\text{OPERATOR}}$ (that's dramatically higher than anybody in the peer set.)$_{\text{SCOPE}}$

(204) (You've, (obviously)$_{\text{OPERATOR}}$, been aggressively investing to date,)$_{\text{SCOPE}}$ but (it seems like)$_{\text{OPERATOR}}$ (this is a step-up from what you've been doing so far.)$_{\text{SCOPE}}$

(205) (I)$_{\text{COGNIZER}}$ (think)$_{\text{OPERATOR}}$ (in (the Shareholder Letter)$_{\text{SOURCE}}$,)$_{\text{SCOPE}}$ (there was a comment about)$_{\text{OPERATOR}}$ (retention and frequency in LTV.)$_{\text{SCOPE}}$

NB. We are interested in retrieving explicit expressions of knowledge; therefore, we are annotating always and only when an *Operator* is present. For the same reason, a *Scope* is always present. In case of broken sentences, we do not annotate the Frame. *Cognizer* and *Source*, on the other hand, are not always necessarily present: in (202) and (204) there is no *Cognizer* mentioned, while in (203) and (204) as well as in the first Frame of (205) we don't find any *Source*.

NB2. There is no predetermined length of the annotation spans of Components. In (202) and (203), for instance, the *Operator* is only one word (*mentioned* and *assume*), while in (204) and (205) we find longer expressions (*it seems like* and *there was a comment about*).



Figure 138. Snapshot of INCEpTION annotation of Epistential Frames Components

The *Source* in (202) is only one word (*you*) while in (205) is a longer expression (*the Shareholder letter*).

How to correctly annotate. *Punctuation*

As we see from the examples reported above, the punctuation is included in the annotation span of *Scope*, while it is excluded in the annotation span of the other Component types → in (1), the annotation of *Source* ends before the comma; in (4), the comma after "Shareholder letter" is excluded from the annotation of the *Source* but is included in the annotation of the *Scope*.

How to correctly annotate. *Scopes*

The *Scope* is the propositional content that states *what* is known and over which the *Operator* has scope (hence, the name).

a. Nominal sentences

Usually, the *Scope* is a phrase with an explicit propositional content (as we see in (202) (203) and (204)). However, this is not necessarily always the case: in (206), both the scopes of *think* and *there was a comment about* are nominal sentences. Even though there is no verb – and therefore no predicate – we consider this kind of phrases as *Scopes*.

(206) (I)COGNIZER (think)OPERATOR (in (the Shareholder Letter)SOURCE,)SCOPE (there was a comment about)OPERATOR (retention and frequency in LTV.)SCOPE

b. Anaphora and cataphora

In the majority of cases, the *Scope* is within sentence boundaries (as in (202)-(205)). However, it is not necessarily so. Sometimes, we have anaphoric or cataphoric elements, and therefore the *Scope* is split in two (or even more) sentences.

(207) Number one, (this is a travel rebound that is starting that is unlike anything we've ever seen before.)SCOPE And (I)COGNIZER (think)OPERATOR ((the Q1 results)SOURCE (kind of demonstrate)OPERATOR (this.)SCOPE)SCOPE

(208) So (this is the second trend)SCOPE ((we're) COGNIZER seeing)OPERATOR. (And the third is people are now traveling everywhere.)SCOPE

In (207) we have two *Operators* (therefore two EPISTENTIAL FRAMES), *think* and *kind of demonstrate*. The scope of the latter is split, and we have an anaphora ("this"). We

annotate both the anaphoric expression ("this") and the proposition in the previous sentence.

In (208) the operator *we are seein*g takes as *Scopes* "this is the second trend" and "And the third is people are now traveling everywhere." which is in another sentence.

(!) Interestingly, "*this is the second trend we're seeing*" is actually a cataphoric expression that encapsulates the previous paragraph in which the speaker largely describes something that is happening in the market ("the trend"). However, since it is not really clear which the boundaries of the description of such trend are, we do not annotate the antecedent of "this is the second trend".

c. Adverbial Operators

When the *Operator* is an adverb within its scope the annotation of the *Scope* comprehends the Operator as well – meaning that the annotation span is not divided – as in (209).

(209) (You've, (obviously)$_{\text{OPERATOR}}$, been aggressively investing to date,)$_{\text{SCOPE}}$ but (it seems like)$_{\text{OPERATOR}}$ (this is a step-up from what you've been doing so far.)$_{\text{SCOPE}}$

NB. When the *Operator* is an adverb but it is not inserted in the scope, as in (210), we do not include it in the annotation of the *Scope*.

(210) (Clearly)$_{\text{OPERATOR}}$, (right now 80% of our nights in Q1 were domestic.)$_{\text{SCOPE}}$

NB2. This does not apply for verbs or verbal expression that are included within their scopes. In such cases, the *Scope* annotation span is divided, as in (8):

(211) (…) (the recovery)$_{\text{SCOPE}}$ ((we're)$_{\text{COGNIZER}}$ seeing)$_{\text{OPERATOR}}$ (in prices and margins.)$_{\text{SCOPE}}$

How to correctly annotate. *Cognizer*

When the *Cognizer* and *Operator* are formulated as a contracted form with an apostrophe (*we're, I've* etc.) they must be annotated as in (211): (*we're*) is annotated as *cognizer* and the whole expression (we're seeing) as *operator*.

How to correctly annotate. *Sources and Operators*

Sometimes (especially in the *hearsay* evidentiality, see below for an explanation) the expression of evidentiality – the *Operator* – can coincide with or be included in the *Source*.

In (212), we don't have a verbal form with an evidential or epistemic function, we only find the expression of the source ("*In the Shareholder letter*"); in such cases, we annotate the entire expression as *Operator*, and "*the Shareholder letter*" as the *Source*. This means that the *Source* is included within the *Operator*. In (213), analogously, there is no verb with an evidential value, which is carried by the expression "*in my surveys*", and we annotate as in (212) considering the whole expression as *Operator* and "*my surveys*" as the *Source*.

A similar case is (214), where we have the expression "*All the early indications are*", where the evidential function is not expressed by the verb "to be" in itself, but by the expression (in particular, this value is triggered by the term "*indication*").

(212) (In (the Shareholder letter)$_{\text{SOURCE}}$)$_{\text{OPERATOR}}$, (you called out increased frequency from existing customers who order convenience.)$_{\text{SCOPE}}$

(213) In fact (in (my surveys)$_{\text{SOURCE}}$)$_{\text{OPERATOR}}$, (people say the thing they miss the most that was taken away from the pandemic, at least from outdoor activities, was travel.)$_{\text{SCOPE}}$

(214) ((All the early indications)$_{\text{SOURCE}}$ are)$_{\text{OPERATOR}}$ (that it's there.)$_{\text{SCOPE}}$

The *Source* is included within the *Operator* also in the case of expression as *As I said*, *as you said*.

(215) (Now while the results are still early,)$_{\text{SCOPE}}$ (as (I)$_{\text{SOURCE}}$ said)$_{\text{OPERATOR}}$, (we have seen elevated traffic levels.)$_{\text{SCOPE}}$

(216) Because (as (you)$_{\text{SOURCE}}$ said)$_{\text{OPERATOR}}$, (as rebound comes back, the pace at which it comes back in the geographies that come back will affect the mix on those ADRs.)$_{\text{SCOPE}}$

12.4.1.2. EVIDENTIALITY TYPE

This feature, as previously said, applies only to Operators.

EVIDENTIALITY TYPE specifies the type of source the piece of knowledge was acquired through. As stated above (0. Aim and perspective of the scheme), the typology we use is designed to fulfil the specific needs of the present research and is tailored for the specific genre of financial dialogues.

Bearing in mind that our main goal is to identify *who knows what and how*, and therefore that we are interested in mapping the participants' knowledge, the focus of our annotation is the whole dimension of knowledge representation, including evidential expressions *tout court* as well as expressions of epistemic modality and strategies of knowledge attribution. We started from the previous literature as this helps us in defining and classifying the evidentiality types, but ultimately the taxonomy we adopt is context-based and data-driven: looking at the data, we observed the presence or absence of certain categories or subcategories, and revised the definition of some of them as in the dialogues under analysis some types of evidentials are used in specific ways.

Our classification distinguishes five evidentiality types, and it is reflected in the values of the Feature – an "empty" one (*Uspecified evidentiality*) is added.

The values are the following:

- ***Direct***
- ***Common knowledge***
- ***Hearsay***
- ***Inferential***
- ***Subjective***
- ***Unspecified evidentiality***

→ ***Direct*** evidentiality – which often in the literature is a macro-category – includes different modes of knowledge acquisition through senses. The clearest example of direct evidentiality is visual (*I saw p*) but can also include non-visual types, as auditory (*I heard p*[130]) or other senses (*It's hot, I touched it*).

In the financial context, the non-visual types are essentially absent, therefore we restrict our category of *direct* to visual sources. However, it is also clear that the information disclosed and discussed in ECCs and financial communication is not something "directly observable", as the object is the financial market which is, by itself, non-material and therefore not observable. Usually, the information disclosed can be numbers or indexes,

[130] This differs from hearsay as the auditory perception is something as "She said *p*. I heard her", meaning that the auditory perception is not the source for knowing *p*, but for knowing that *she said it*. It's more about how I know a *fact* – the utterance of something, but also a noise (*I heard the bell ringing*) – took place, rather than a propositional content uttered by someone.

state of affairs and changes (such as growths or losses). Even though these kinds of objects are not strictly speaking something that can be seen or observed directly, we chose to use the term *direct* as they are characterized as such by the speakers, and because they are *results of observations*. In this sense, this kind of sources can be distinguished from inferentials, as they are rather results of calculation. Moreover, as results of observations, it is implied that someone actually *observed* something – which is reflected in the data – and this someone is part of the company.

For all this reasons, we considered reasonable to use the term *direct*, with the *caveat* that it is intended in a slightly different way than in the tradition.

(217) (we)COGNIZER (have seen)OPERATOR-DIRECT (elevated traffic *levels*.)SCOPE
(218) So ((we're) COGNIZER just seeing) OPERATOR-DIRECT (continued positive *momentum*.)SCOPE
(219) [But you also noted that] ((you're)COGNIZER starting to see)OPERATOR-DIRECT (some *price appreciation* in certain high-demand areas.)SCOPE
(220) (the trend that)SCOPE (we)COGNIZER (saw)OPERATOR-DIRECT (in ADR late last year, the *increase* in ADR)SCOPE was almost exclusively driven by mix.

(221) [I think] what ((we've)COGNIZER seen) OPERATOR-DIRECT (is just a bit more *resilience* in guests being willing to travel around the world.)SCOPE

In (217)-(221) we can see that the scope of these evidential frames are indexes (*traffic levels*, *price appreciation*, *increase*) or situations (*positive momentum*, *more resilience*). Again, these are not directly observable objects, in absolute terms, but it is clear that they have a direct perception of these things going on. For example, the *elevated traffic levels* (217) are indeed something numerical, but the way the speaker is framing it is not "we infer that there are elevated traffic levels from a certain premise", but that they are seeing it, for instance, in a table or a report[131]. There is a sort of immediateness of the data, and a dimension of certainty that depends on it. The manager that *sees* data (elaborated and provided by the company itself) can use in a pretty easy way a source of direct perception. Clearly, the *increase* or *decrease* of something has to be calculated, as well as the *price*

[131] That was, by the way, in turn elaborated by someone who actually *saw* the numbers of the traffic levels, and this person is included somehow in the cognizer *we*, that includes the whole company.

appreciation or the *resilience in guests in doing something*, but it is a sort of immediate calculation – we *see* a number that increases, or the customers continuing to do something.[132]

→ ***Common knowledge***, category introduced by Plungian in 2010, indicates knowledge that pertains to general shared knowledge. Interestingly, since it regards something shared, it should not be necessary to indicate the source; sometimes, however, it is clearly indexed as such.

(222) [I think] (it is just common sense that)$_{\text{OPERATOR-COMMON KNOWLEDGE}}$ (that is the right legal answer.)$_{\text{SCOPE}}$
(223) [And I think] (common consent would say that)$_{\text{OPERATOR-COMMON KNOWLEDGE}}$ (one of the issues on your shares is the free cash flow yield is not being represented in the market because your dividend yield is so -- or your dividend payer.)$_{\text{SCOPE}}$
(224) (Of course)$_{\text{OPERATOR-COMMON KNOWLEDGE}}$, (we were a significantly undervalued company.)$_{\text{SCOPE}}$

→ ***Inferential*** evidentiality identifies processes of knowledge acquisition through an inference based on (textually explicit or implicit) premises. This evidentiality type has been largely studied in the literature.

(225) (It seems like)$_{\text{OPERATOR-INFERENTIAL}}$ (to me)$_{\text{COGNIZER}}$ (you're giving consumers, you know, broader recommendations.)$_{\text{SCOPE}}$
(226) Because (it seems like)$_{\text{OPERATOR-INFERENTIAL}}$ (the pandemic has definitely taught the consumer that they can work and stay anywhere.)$_{\text{SCOPE}}$
(227) [So I just think] (it all)$_{\text{SOURCE}}$ (just shows)$_{\text{OPERATOR-INFERENTIAL}}$ (kind of that resiliency and the stability of our supply.)$_{\text{SCOPE}}$
(228) But on the other hand, (we (obviously)$_{\text{OPERATOR-INFERENTIAL}}$ need to respond to the market that we're in.)$_{\text{SCOPE}}$

[132] In everyday conversation, we can use a similar kind of (in)direct evidentials that are actually a sort of "contracted forms" of inferentials: *I saw that Mary was tired*. I do not actually *see* her tiredness, I only see "signs" of it; however, there is an immediateness between the signs I saw and Mary being tired, that I do not really characterize the source as my inference but rather the visual signs and indications. As for the financial data, the tiredness of Mary is not something I can *experience* directly, but is something that is indexed in a very direct way and becomes "observable" in signs.

(229) (If you did the same math)$_{\text{OPERATOR-INFERENTIAL}}$ (for some of these other categories that we're entering, be it convenience, grocery and others, that number is very, very, very small single digits.)$_{\text{SCOPE}}$

(230) [And I think] what (this)$_{\text{SOURCE}}$ (says)$_{\text{OPERATOR-INFERENTIAL}}$ is (that Airbnb is no longer an alternative way to travel.)$_{\text{SCOPE}}$

As seen in the above examples, expressions of inferential evidentiality can be verbal constructions (*to seem like*, *to say*, *to mean*), lexical strategies (*if you do the math*) or adverbs (*obviously*, *evidently*, *clearly*, *probably*). The *cognizer* can be present, as in (225), or absent, as in (226)-(230); the *source* as well can be present, as in (227) and (230), or absent.

Inferential evidentials are *intersubjective*, which means that the inferential process at the basis of the knowledge is accessible to others.

→ ***Hearsay*** is the category that includes reported speech, this being direct or indirect, and encompasses both cases in which the source is mentioned and those in which is not mentioned.

(231) So (you)$_{\text{SOURCE}}$ (said)$_{\text{OPERATOR-HEARSAY}}$ (you have similar levels to last quarter around 5.6 million.)$_{\text{SCOPE}}$

(232) (…) (you)$_{\text{SOURCE}}$ (mentioned)$_{\text{OPERATOR-HEARSAY}}$ (in the past that a quarter of guests eventually become hosts.)$_{\text{SCOPE}}$

(233) (You)$_{\text{SOURCE}}$ (just talked about)$_{\text{OPERATOR-HEARSAY}}$ (having this record day.)$_{\text{SCOPE}}$

(234) And what (we)$_{\text{COGNIZER}}$ (heard over and again)$_{\text{OPERATOR-HEARSAY}}$ (was they really want a choice, choice on the spectrum of investing you know in growth and in which case, they can pick some of the higher-priced plans that allows them participation in programs like DashPass, where DoorDash is covering the cost of delivery; or choice in the form of greater profitability, depending on how they're seeing staffing and things like that as they get into recovery; choice in the form of whether the orders are coming from the DoorDash app or their own channel, where we're offering a commission-free, no-cost product called DoorDash Storefront, which will allow them to build their own digital channels; as well as choice in the form of nondelivery use cases like pickup, where we slash rates from 15% to 6%.)$_{\text{SCOPE}}$

NB: Are annotated as *hearsay* also expressions of self-reporting, as in (235). These expressions are interesting as they represent *how the hearers should know something*. The speaker is *attributing* knowledge to the hearer – or at least showing that the knowledge in the scope is *accessible* to him.

(235) (As (I)$_{\text{SOURCE}}$ said)$_{\text{OPERATOR-HEARSAY}}$, (we also have an accompanying host campaign.)$_{\text{SCOPE}}$

→ The category of ***subjective*** evidentiality, as we saw, is not really present in the literature, and was proposed by Nuyts in 2001. Looking at our data, it emerged soon that especially managers often express their personal opinions or beliefs.

Similar to inferentials, subjective evidentials indicate that the source is a mental process; however, while inferentials are intersubjective – as we said above – this type presents as source something that is not accessible (at the present state) to others. This does not mean, of course, that there are no reasons or premises at the basis of the belief or thought expressed by a subjective, but that they are rather inexpressible, maybe not entirely clear either to the cognizer-speaker. While inferentials are translatable into an argumentation, for subjective frames it's not the same: it would be difficult for the cognizer-speaker to argue for its belief, as it is not really the conclusion of a structured reasoning.

(236) And (I)$_{\text{COGNIZER}}$ (think)$_{\text{OPERATOR-SUBJECTIVE}}$ (hosting is coming at the perfect time for many people in the world.)$_{\text{SCOPE}}$
(237) (I)$_{\text{COGNIZER}}$ (don't think)$_{\text{OPERATOR-SUBJECTIVE}}$ (business travel is ever coming back the way it was before the pandemic.)$_{\text{SCOPE}}$
(238) (I)$_{\text{COGNIZER}}$ (do think)$_{\text{OPERATOR-SUBJECTIVE}}$ (a new kind of business travel may emerge.)$_{\text{SCOPE}}$
(239) (We)$_{\text{COGNIZER}}$ (believe)$_{\text{OPERATOR-SUBJECTIVE}}$ (we've taken the full scope into consideration.)$_{\text{SCOPE}}$
(240) (I)$_{\text{COGNIZER}}$ still (believe)$_{\text{OPERATOR-SUBJECTIVE}}$ (that our shares are undervalued.)$_{\text{SCOPE}}$

Similar to inferentials, subjective evidentials indicate that the source is a mental process; however, while inferentials are intersubjective – as we said above – this type presents as source something that is not accessible (at the present state) to others. This does not mean, of course, that there are no reasons or premises at the basis of the belief or thought expressed by a subjective, but that they are rather inexpressible, maybe not entirely clear either to the cognizer-speaker. While inferentials are translatable into an argumentation, for subjective frames it's not the same: it would be difficult for the

cognizer-speaker to argue for its belief, as it is not really the conclusion of a structured reasoning.

→ We added the category ***Unspecified evidentiality*** as we are annotating *epistential frames*, therefore also expressions (epistemic modals or knowledge attribution) that may be not include the indication of the source.

(241) (I)$_{\text{COGNIZER}}$ (know)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY}}$ (90% are individual.)$_{\text{SCOPE}}$

(242) So ((I'm)$_{\text{COGNIZER}}$ not sure)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY}}$ (if you can see this in your data yet.)$_{\text{SCOPE}}$

(243) (We)$_{\text{COGNIZER}}$ (know)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY}}$ (that many of these trips will be -- are incremental and such that when travel rebounds to a more typical state, we'll have, you know, growth in overall travel.)$_{\text{SCOPE}}$

(244) [But I do think] (that we are going to see sustained confidence,)$_{\text{SCOPE}}$ (there's no question)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY}}$.

Expressions of doubt, as (242), are in a way expressions of non-knowledge, and in this sense incompatible with any source of knowledge.

12.4.1.3. EPISTEMIC MODALITY

The second dimension we annotate for the operators is the *epistemic modality*, namely the degree of certainty attributed by the speaker to a certain piece of information.

We propose a scalar classification that distinguishes among four levels of certainty. Rocci (2017) argues against the validity of scalar representations of epistemic modality. However, we choose a simplified scale to classify the instances in our data as we weren't interested in a deep and theoretical model building, but rather in characterize when participants explicit their (lower or higher) certainty about what they are talking about.

The intersection of evidentiality and epistemic modality is a highly debated question. We consider that some evidentiality types are strictly connected with a certain degree of certainty; for instance, *direct evidentiality* is *per se* an indicator of a high degree of certainty and epistemic commitment. The epistemic modality of *hearsay*, on the other hand, is rather extrinsic, as it depends on the reliability of the source. For *inferentials* and *subjective* it varies for each case, and it can be determined on the basis of the marker or expression used.

The values of this feature are the following:

- ***Certainty***
- ***Probability***
- ***Possibility***
- ***Doubt***
- ***Unspecified epistemic modality***

→ ***Certainty*** represents the highest degree of epistemic commitment toward the truth of the proposition in the scope.

(245) (obviously)$_{\text{OPERATOR-INFERENTIAL-CERTAINTY}}$, (things like optimization and trading is fairly low visibility for us.)$_{\text{SCOPE}}$
(246) despite the fact that (we)$_{\text{COGNIZER}}$ (have, indeed, seen)$_{\text{OPERATOR-DIRECT-CERTAINTY}}$ (an impact from the pandemic)$_{\text{SCOPE}}$
(247) (We)$_{\text{COGNIZER}}$ (see)$_{\text{OPERATOR-DIRECT-CERTAINTY}}$ (a tremendous resurgence of volumes, whether it's oil or gas or chemicals, etc.)$_{\text{SCOPE}}$
(248) (So the strength of North America and Europe,)$_{\text{SCOPE}}$ (we)$_{\text{COGNIZER}}$ (believe)$_{\text{OPERATOR-SUBJECTIVE-CERTAINTY}}$ (to continue to remain strong.)$_{\text{SCOPE}}$
(249) It then came back down to more normal levels, but (that (certainly)$_{\text{OPERATOR-INFERENTIAL-CERTAINTY}}$ helped the chemical business,)$_{\text{SCOPE}}$ as did some other intermediate sectors as well.
(250) But then at the same time, ((I'm)$_{\text{COGNIZER}}$ also absolutely convinced)$_{\text{OPERATOR-SUBJECTIVE-CERTAINTY}}$ (that we can deliver competitive returns in all these aspects of the energy system of the future.)$_{\text{SCOPE}}$

→ ***Probability*** indicates a medium degree of certainty and commitment toward the truth of the proposition in the scope.

(251) (it is just common sense that)$_{\text{OPERATOR-COMMON KNOWLEDGE-PROBABILITY}}$ (that is the right legal answer.)$_{\text{SCOPE}}$
(252) Now, one of the most common obstacles (we)$_{\text{COGNIZER}}$ (heard)$_{\text{OPERATOR-HEARSAY-PROBABILITY}}$ (are that people were nervous about their home being damaged when they rented out to guests.)$_{\text{SCOPE}}$
(253) […] as (your main competitor)$_{\text{SOURCE}}$ (has been talking about)$_{\text{OPERATOR-HEARSAY-PROBABILITY}}$ (that you guys may have lost some share in the U.S.) $_{\text{SCOPE}}$
(254) (There were some reports recently about)$_{\text{OPERATOR-HEARSAY-PROBABILITY}}$ (you potentially looking to divest to the Permian.) $_{\text{SCOPE}}$
(255) (So the consumer savings rate, at least in the United States, is (probably) $_{\text{OPERATOR-INFERENTIAL-PROBABILITY}}$ at the highest level it's been since World War II.) $_{\text{SCOPE}}$

(256) And (we)$_{\text{SCOPE}}$ (do expect)$_{\text{OPERATOR-INFERENTIAL-PROBABILITY}}$ (the ADRs to moderate)$_{\text{SCOPE}}$, [but it's hard to perfectly pinpoint down, you know, the specific of that mix.]

(257) But if (the political environment is really)$_{\text{SCOPE}}$, (in your opinion)$_{\text{OPERATOR-SUBJECTIVE-PROBABILITY}}$, (that deteriorating)$_{\text{SCOPE}}$

(258) And (I)$_{\text{cognizer}}$ (think)$_{\text{operator-subjective-possibility}}$ (hosting is coming at the perfect time for many people in the world.)$_{\text{scope}}$

(259) (I)$_{\text{cognizer}}$ (do think)$_{\text{operator-subjective-possibility}}$ (a new kind of business travel may emerge.)$_{\text{scope}}$

→ ***Possibility*** is a quite low certainty for the proposition to be true. The speaker indicates that *p* is possible to be or become true, but with a lower epistemic commitment.

(260) but (it seems like)$_{\text{OPERATOR-INFERENTIAL-POSSIBILITY}}$ (you're really encouraged by what you're seeing)$_{\text{SCOPE}}$

(261) Brian, just expanding on the prior question, (it does sound like)$_{\text{OPERATOR-INFERENTIAL-POSSIBILITY}}$ (this platform experience update is really designed around inspiration and discovery.)$_{\text{SCOPE}}$

(262) So (feeling)$_{\text{OPERATOR-SUBJECTIVE-POSSIBILITY}}$ (we're in a good place in terms of returning cash to our shareholders through various forms of distribution.)$_{\text{SCOPE}}$

→ ***Doubt*** indicates a lack of knowledge, and that the speaker does not commit toward the truth of *p*. As it indicates a non-knowledge, it is incompatible with evidentiality.

(263) And is there any color you can provide on (how important that is in terms of the economics of these transactions)$_{\text{SCOPE}}$ because ultimately something (we)$_{\text{COGNIZER}}$ just (don't see)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY-DOUBT}}$.

(264) I mean just (unsure)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY-DOUBT}}$ (exactly where everything will settle out for domestic versus international.)$_{\text{SCOPE}}$

(265) Can you just give us an update on (where your revenue take rate is today as a percentage of GPV just given all the timing differences)$_{\text{SCOPE}}$? (It's hard to tell from the outside)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY-DOUBT}}$ (where that is.)$_{\text{SCOPE}}$

(266) While there have been maintenance issues happening in many assets (within the Shell portfolio and across kind of the LNG industry,)$_{\text{SCOPE}}$ ((I'm)$_{\text{COGNIZER}}$ not aware)$_{\text{OPERATOR-UNSPECIFIED EVIDENTIALITY-DOUBT}}$ (of it being a thematic issue around backlog maintenance.)$_{\text{SCOPE}}$

→ ***Unspecified epistemic modality*** serves as category for those instances of evidential markers or knowledge attribution signals that do not carry an epistemic modality meaning, namely that do not express a degree of certainty. In particular, a good percentage of these

cases are instances of attributed knowledge, i.e., when the *cognizer* is the *hearer* – or a third external party.

(267) (As (I)$_{\text{SOURCE}}$ said)$_{\text{OPERATOR-HEARSAY-UNSPECIFIED EPISTEMIC MODALITY}}$, (we also have an accompanying host campaign.)$_{\text{SCOPE}}$

(268) (if you think about) $_{\text{OPERATOR-INFERENTIAL-UNSPECIFIED EPISTEMIC MODALITY}}$ (the number of hosts on Airbnb)$_{\text{SOURCE}}$, (the top occupations of our hosts are healthcare workers, educators, and people in food and hospitality.)$_{\text{SCOPE}}$

(269) [I think that] what ((you're)$_{\text{COGNIZER}}$ seeing)$_{\text{OPERATOR-DIRECT-UNSPECIFIED EPISTEMIC MODALITY}}$ is (still even more confidence in the U.S.)$_{\text{SCOPE}}$

(270) And in fact, ((you've)$_{\text{COGNIZER}}$ seen)$_{\text{OPERATOR-DIRECT-UNSPECIFIED EPISTEMIC MODALITY}}$ (a lot of the resilience of that consumer behavior stay)$_{\text{SCOPE}}$

(271) [And I think (Jessica)$_{\text{SOURCE}}$ (presented)$_{\text{OPERATOR-HEARSAY-UNSPECIFIED EPISTEMIC MODALITY}}$ today (that (we)$_{\text{SOURCE}}$ (show)$_{\text{OPERATOR-INFERENTIAL-UNSPECIFIED EPISTEMIC MODALITY}}$ (that 40 to 50% of customers and many of our key markets don't come for fuel, they actually come for convenience retailing.)$_{\text{SCOPE}}$)$_{\text{SCOPE}}$

(272) And this has always been (our focus, by the way, which is to make sure that we build the best product,)$_{\text{SCOPE}}$ which (you)$_{\text{COGNIZER}}$ (can see as demonstrated)$_{\text{OPERATOR-INFERENTIAL-UNSPECIFIED EPISTEMIC MODALITY}}$ (through these leading both new customer acquisition, as well as retention metrics)$_{\text{SOURCE}}$.

12.4.1.4. COGNIZER

On the *operator* we also annotate *who the cognizer is*. While the Component-feature *Cognizer* allows us to identify the word or piece of text that indicates who the cognizer is (when textually present), this annotation serves to classify it, other than to indicate it even when absent.

The values are the following:

- ***Speaker only***
- ***Speaker***
- ***Hearer***
- ***Other***
- ***Speaker+hearer***
- ***Speaker+other***

→ ***Speaker only*** when it's explicit that the cognizer is only the speaker, e.g., when the verb has a 1st person pronoun, as in (273)-(277), or when there's an expression that clearly indicates that the piece of information is a personal opinion or conclusion, as in (278) and (279).

(273) (I)$_{\text{COGNIZER}}$ (know)$_{\text{OPERATOR-SPEAKER ONLY}}$ (that obviously tell that it was a big accelerator into the business.)$_{\text{SCOPE}}$

(274) (I)$_{\text{COGNIZER}}$ (believe)$_{\text{OPERATOR-SPEAKER ONLY}}$ (if we execute well, we'll generate a very attractive return.)$_{\text{SCOPE}}$

(275) (I)$_{\text{COGNIZER}}$ (assume)$_{\text{OPERATOR-SPEAKER ONLY}}$ (that's dramatically higher than anybody in the peer set.)$_{\text{SCOPE}}$

(276) (I)$_{\text{COGNIZER}}$ (saw)$_{\text{OPERATOR-SPEAKER ONLY}}$ (you guys just filed the perspectives)$_{\text{SCOPE}}$

(277) And (I)$_{\text{COGNIZER}}$ (expect)$_{\text{OPERATOR-SPEAKER ONLY}}$ (us to get millions of more hosts in the coming years on Airbnb.)$_{\text{SCOPE}}$

(278) (It seems like)$_{\text{OPERATOR-SPEAKER ONLY}}$ (to me)$_{\text{COGNIZER}}$ (you're giving consumers, you know, broader recommendations.)$_{\text{SCOPE}}$

(279) So anyway, (I have tons of interesting stuff ahead,)$_{\text{SCOPE}}$ (in my opinion)$_{\text{OPERATOR-SPEAKER ONLY}}$.

Examples (273)-(278) present explicit indications that the experiencer of the knowledge acquisition process is only the speaker (the pronoun "I" and the expression "*to me*").

In (279) the expression "*in my opinion"* assumes the role of operator and indicates that the proposition *p* pertains to the knowledge of the speaker only – as it is a personal opinion.

→ ***Speaker*** indicates cases where the speaker clearly represents himself as (part of the) cognizer, but also signals that the scope is a piece of information intersubjective, meaning that it is accessible to others.

(280) (common consent would say)$_{\text{OPERATOR-SPEAKER}}$ (that one of the issues on your shares is the free cash flow yield is not being represented in the market because your dividend yield is so -- or your dividend payer.)$_{\text{SCOPE}}$

(281) (It's very welcome to see)$_{\text{OPERATOR-SPEAKER}}$ (a major recovery in the LNG volume)$_{\text{SCOPE}}$ (from your guidance for Q4)$_{\text{SOURCE}}$.

(282) [I think] (in the letter)$_{\text{SOURCE}}$, (it)$_{\text{SOURCE}}$ (said)$_{\text{OPERATOR-SPEAKER}}$ (post listings were stable with Q4.)$_{\text{SCOPE}}$

(283) So (you guys)$_{\text{SOURCE}}$ (mentioned)$_{\text{OPERATOR-SPEAKER}}$ (some slowdown in the nights booked in the third quarter.)$_{\text{SCOPE}}$

(284) (it does sound like)$_{\text{OPERATOR-SPEAKER}}$ (this platform experience update is really designed around inspiration and discovery.)$_{\text{SCOPE}}$

(285) (Record day)$_{\text{SOURCE}}$ (still)$_{\text{SCOPE}}$ (sounds like)$_{\text{OPERATOR-SPEAKER}}$ (things are good.)$_{\text{SCOPE}}$

(280) is an instance of *common knowledge*; the speaker implies that he knows *p* as it's part of a common knowledge, and therefore it is not something only him can know.

(281)-(283) are form of *hearsay* where the sources are disclosures by the company, which are accessible also to others – we know that the speaker surely knows *p*, but the type of source represented allows an intersubjective interpretation, meaning that we can assume that also someone else (the interlocutor or even other participants in the interaction) knows *p*.

(284) and (285) are *inferentials* and there is not explicit signal of a "personal" inference, therefore are intersubjective – the inference is accessible to everybody has the same premises.

→ ***Hearer*** when the speaker attributes some knowledge to the hearer. In this case, we could say that the speaker also knows it – since he's asserting it – but what's interesting is the attribution of it to the interlocutor, the *I know that you know*.

(286) [On the second question,] (the business impact is reflected in our guidance, and it's something that)$_{\text{SCOPE}}$ (you)$_{\text{COGNIZER}}$ (know)operator-hearer (we feel pretty comfortable.)$_{\text{SCOPE}}$

(287) (Dashers)$_{\text{SCOPE}}$ (you)$_{\text{COGNIZER}}$ (know)$_{\text{OPERATOR-HEARER}}$ (don't require a car.)$_{\text{SCOPE}}$

(288) [We want to ask about] (the growth)$_{\text{SCOPE}}$ ((you're)$_{\text{COGNIZER}}$ seeing)$_{\text{OPERATOR-HEARER}}$ (in hosts)$_{\text{SCOPE}}$

(289) [Now while the results are still early,] (as (I)$_{\text{SOURCE}}$ said)$_{\text{OPERATOR-HEARER}}$, (we have seen elevated traffic levels.)$_{\text{SCOPE}}$

(290) [And then what we're seeing,] (as (I)$_{\text{SOURCE}}$ said)$_{\text{OPERATOR-HEARER}}$ in Q4, (is our ADRs are relatively stable with what they were in Q3.)$_{\text{SCOPE}}$

(291) (As (we)$_{\text{SOURCE}}$ have said)$_{\text{OPERATOR-HEARER}}$ in earlier quarters, (we fixed the undersupply situation that we faced earlier in Q2 and we find ourselves well supplied, and we expect to be well supplied in 2022.)$_{\text{SCOPE}}$

While in (286)-(288) the cognizer is explicitly indicated as the hearer, in (289)-(291) the speaker attributes the knowledge to the hearer as that he / they *already told p* – so he's supposed to know.

We already highlighted that in such cases the epistemic modality is *unspecified*, as the speaker tells us that *p* should pertain to the hearer's territory of knowledge, but cannot really tell with which degree of certainty.

→ The cognizer is annotated as ***Other*** when it's clearly indicated that a third party outside the interactants knows something.

(292) [although I think] (many people)$_{\text{COGNIZER}}$ (believe)$_{\text{OPERATOR-OTHER}}$ (sit in your business recognized in your share price)$_{\text{SCOPE}}$

→ ***Speaker + hearer*** includes cases where the speaker and the hearer are cognizer, for instance in cases of hearsays where the source is another participant of the call, as in (293) and (294).

(293) (As (Brian)source mentioned)$_{\text{OPERATOR-SPEAKER+HEARER}}$, (this broader brand campaign, talking about made possible by hosts, it gets to us talk to both sides of our marketplace.)$_{\text{SCOPE}}$

(294) And just to give you an example, (as (Dave)source said)$_{\text{OPERATOR-SPEAKER+HEARER}}$, (we've seen our fastest-growing areas of inventory in North America and Europe in nonurban areas.)$_{\text{SCOPE}}$

→ ***Speaker + other*** captures those cases where the cognizer is a "group entity" that includes both the speaker and someone else. The typical case is when a manager uses the plural to indicate the company in general.

(295) And what ((we've)$_{\text{COGNIZER}}$ actually seen)$_{\text{OPERATOR-SPEAKER+OTHER}}$ (is a large growth in nonurban listing.) $_{\text{SCOPE}}$

(296) (Now as far as key friction to becoming a host, one of the things)$_{\text{SCOPE}}$ ((we've)$_{\text{COGNIZER}}$ seen)$_{\text{OPERATOR-SPEAKER+OTHER}}$, [probably the main learning we've had] (is as we make it easier, more people do it.)$_{\text{SCOPE}}$

(297) [So I think that] (as restrictions lift in countries, as vaccinations rise,)$_{\text{SCOPE}}$ (we)$_{\text{COGNIZER}}$ (think)$_{\text{OPERATOR-SPEAKER+OTHER}}$ (this is a significant tailwind to both urban travel and cross-border travel.)$_{\text{SCOPE}}$

(298) [And in terms of the market opportunity of long-term stays -- market opportunity in long-term stays,] (we)cognizer (think)$_{\text{OPERATOR-SPEAKER+OTHER}}$ (this adds hundreds of billions of dollars to our overall long-term TAM opportunity with long-term stays.)$_{\text{SCOPE}}$

(299) And what (we)$_{\text{COGNIZER}}$ (heard)$_{\text{OPERATOR-SPEAKER+OTHER}}$ (from really anyone we speak to)$_{\text{SOURCE}}$ (is a willingness to engage in that conversation and construct forward a third way in which we can pair this independence and flexibility with benefits.)$_{\text{SCOPE}}$

Fig. 2 and 3 show the annotation of the EPISTENTIAL FRAMES with all the features and values.

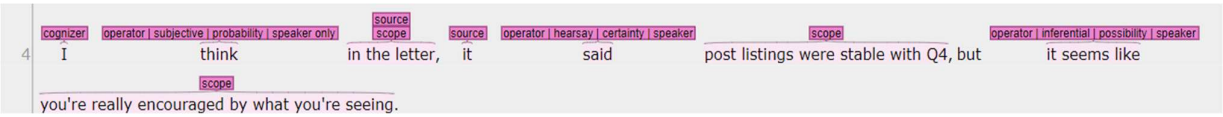


Figure 140 Snapshot of INCEpTION annotation of Epistential Frames Components and Operator features: Evidentiality type, Epistemic Modality and Cognizer.

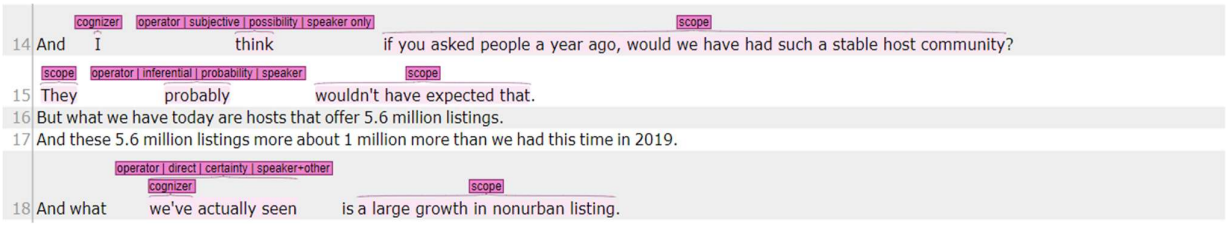


Figure 139 Snapshot of INCEpTION annotation of Epistential Frames Components and Operator features: Evidentiality type, Epistemic Modality and Cognizer.

12.4.1.5. LINK

This relational feature allows to build a connection between the different Components, to identify the element of each Frame.

Links are:

- *Operator-scope*, connecting the *Operator* to the *Scope*
- *Operator-cognizer*, connecting the *Operator* to the *Cognizer*
- *Operator-source*, connecting the *Operator* to the *Source*

How to correctly annotate. *Links*

When annotating a relation, it is important to draw the arrow starting from the *Operator* and pointing toward the other Component, and not the other way round!

Annotate the Links after having annotated all the Components.

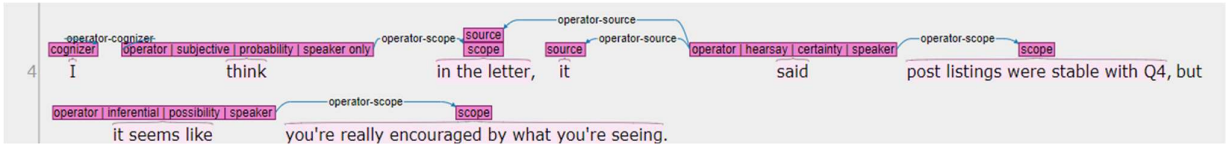


Figure 141. Snapshot of INCEpTION annotation of Epistential Frames Components with Operator features and Links.

12.4.2. Epistential Span layer

The EPISTENTIAL SPAN layer is a functional layer that serves to annotate and retrieve the portions of text that contain (at least) one Epistential frame.

A Span is a higher-level annotation that comprises all the Components of one or more Epistential frames.

The boundaries and length of an Epistential Span are not pre-determined, as they depend on the structure of the frames, but it cannot be shorter than a sentence. Even in cases where the frame is shorter than a sentence, the entire sentence has to be annotated (as in (102)). This applies as well for Epistential frames comprised within interrogative sentences (as in (103) and (104)).

In case of anaphoric/cataphoric elements, when the antecedent is annotated within the Evidential frame, the Span has to include the antecedent as well (as in (104)-(106)).

(300) {(I)$_{\text{COGNIZER}}$ (think)$_{\text{OPERATOR}}$ ((in the letter)$_{\text{SOURCE}}$,)$_{\text{SCOPE}}$ (it)$_{\text{SOURCE}}$ (said)$_{\text{OPERATOR}}$ (post listings were stable with Q4,)$_{\text{SCOPE}}$ but (it seems like)$_{\text{OPERATOR}}$ (you're really encouraged by what you're seeing.)$_{\text{SCOPE}}$}$_{\text{EPISTENTIAL SPAN}}$

(301) {[This has been our bread and butter before the pandemic,] and (I)$_{\text{COGNIZER}}$ (think)$_{\text{OPERATOR}}$ (those are significant tailwinds for us.)$_{\text{SCOPE}}$}$_{\text{EPISTENTIAL SPAN}}$

(302) {We want to ask about (the growth)$_{\text{SCOPE}}$ ((you're)$_{\text{COGNIZER}}$ seeing)$_{\text{OPERATOR}}$ (in hosts)$_{\text{SCOPE}}$}$_{\text{EPISTENTIAL SPAN}}$

(303) {Can you just give us an update on (where your revenue take rate is today as a percentage of GPV just given all the timing differences)$_{\text{SCOPE}}$? (It's hard to tell from the outside)$_{\text{OPERATOR}}$ (where that is.)$_{\text{SCOPE}}$}$_{\text{EPISTENTIAL SPAN}}$

(304) {So (this is the second trend)$_{\text{SCOPE}}$ ((we're) $_{\text{COGNIZER}}$ seeing)$_{\text{OPERATOR}}$. (And the third is people are now traveling everywhere.)$_{\text{SCOPE}}$}$_{\text{EPISTENTIAL SPAN}}$

(305) {Number one, (this is a travel rebound that is starting that is unlike anything we've ever seen before.)$_{\text{SCOPE}}$ And (I)$_{\text{COGNIZER}}$ (think)$_{\text{OPERATOR}}$ ((the Q1 results)$_{\text{SOURCE}}$ (kind of demonstrate)$_{\text{OPERATOR}}$ (this.)$_{\text{SCOPE}}$)$_{\text{SCOPE}}$}$_{\text{EPISTENTIAL SPAN}}$

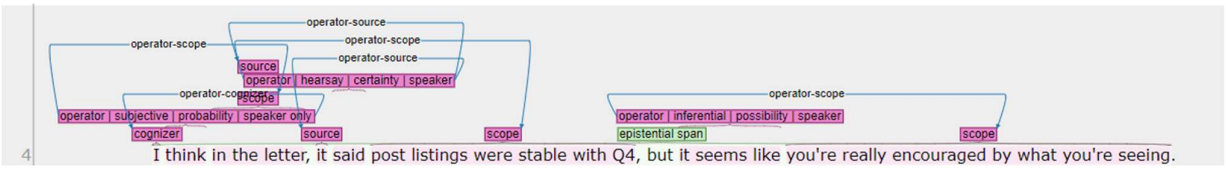


Figure 142. INCEpTION annotation of Example (300).

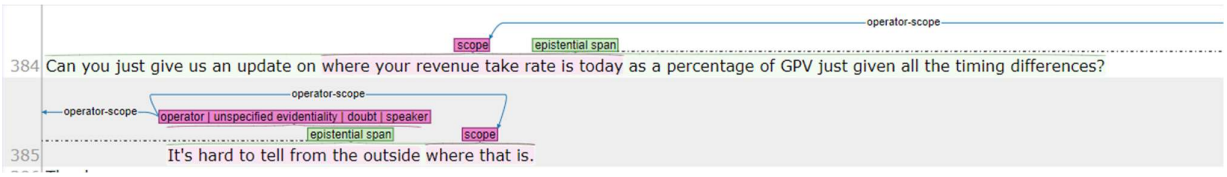


Figure 143. INCEpTION annotation of Example (303).