

Karolina Grzech and Henrik Bergqvist (Eds.)
Expanding the Boundaries of Epistemicity

Trends in Linguistics Studies and Monographs

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Volume 393

Expanding the Boundaries of Epistemicity

Epistemic Modality, Evidentiality, and Beyond

Edited by
Karolina Grzech and Henrik Bergqvist

DE GRUYTER
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This book is available Open Access thanks to the support of the Swedish Research Council (Vetenskapsrådet) for the project 'A dialogue-based theory of evidentiality' (grant no. 2020-0158).

ISBN 978-3-11-151423-9

e-ISBN (PDF) 978-3-11-151623-3

e-ISBN (EPUB) 978-3-11-151694-3

ISSN 1861-4302

DOI <https://doi.org/10.1515/9783111516233>



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Library of Congress Control Number: 2025945799

Bibliographic information published by the Deutsche Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available on the internet at <http://dnb.dnb.de>.

© 2025 the author(s), editing © 2025 Karolina Grzech and Henrik Bergqvist, published by Walter de Gruyter GmbH, Berlin/Boston, Genthiner Straße 13, 10785 Berlin
The book is published open access at www.degruyterbrill.com.

Typesetting: Integra Software Services Pvt. Ltd.

Printing and binding: CPI books GmbH, Leck

www.degruyterbrill.com

Questions about General Product Safety Regulation:
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Karolina Grzech and Henrik Bergqvist

1 Epistemicity in language: current horizons, future directions

Abstract: This chapter surveys current research on linguistic epistemicity, defined as a notional category concerned with knowledge management. We begin with one of its sub-categories: evidentiality, often defined as indicating the ‘source of information’. Evidentials do not change the propositional content of utterances but add a layer of meaning. In line with the information-source definition, this layer is widely assumed to indicate ‘*how* the speaker knows’. However, descriptive research shows that evidentials also convey meanings that link them to other types of epistemic markers. This becomes especially apparent in interactional data, where forms previously labelled ‘evidential’ often signal not so much the type of evidence as the basis on which the proposition should be integrated with what is already known. This chapter has three objectives. First, it shows how interactional data from under-described languages support the analysis of evidentials and other epistemic expressions as inherently intersubjective. Second, it argues that the use of grammatical evidentials in under-described Indigenous languages and of ‘evidential strategies’ in Standard Average European languages share more commonalities than often acknowledged. Third, it considers the implications of these observations for comparative and typological research, particularly the challenges of comparing languages on the basis of spoken corpora that vary in size, annotation, genre, and number of represented speakers.

Keywords: evidentiality, egophoricity, pragmatics, interactional linguistics, corpus linguistics

Acknowledgements: The line of thinking presented in this chapter has developed over many years, and the research that led up to it was made possible by several funding agencies. Karolina Grzech would like to gratefully acknowledge the support of ELDP (grant numbers IGS0166 and IPF0301). Both authors would like to thank Johanna Miecznikowski-Fuenfschilling, Nick Evans and Jenneke van der Waal for their comments on an earlier version of this chapter. We also gratefully acknowledge the support of the Swedish Research Council (*Vetenskapsrådet*, grant number 2020-01581, ‘A dialogue-based theory of evidentiality’), which enabled this research and contributed to making it available in Open Access.

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1.1 Introduction

The title of this volume promises to ‘expand the boundaries of epistemicity.’ Before further discussion, let us briefly clarify what epistemicity is as a preface to discussing why an expansion is needed and what we stand to gain from it.

The notion of epistemicity has yet to receive widespread recognition in the linguistics literature, but the term was defined by Boye (2012) more than a decade ago as including linguistic expressions lending either ‘epistemic justification’ (evidentiality) or ‘epistemic support’ (epistemic modality) to propositions. This definition responded to concerns in the field of research during the first decade of the 21st century, namely a growing interest in evidential expressions, both lexical and grammatical, and a preoccupation with describing their semantics as encoding ‘just’ the source of information (i.e. evidentiality), or both the source of information and the speaker’s degree of certainty (i.e. epistemic modality) – as these were seen as the only two options at the time.¹

Now, over a decade later, we know more about evidentials in the languages of the world, and with this knowledge has come a number of insights. Firstly, it is apparent that, contrary to the divide between ‘evidentiality proper’, marked through dedicated morphemes, and ‘evidential strategies’, expressed by lexical means (Aikhenvald 2004), grammatical and lexical expressions of evidentiality might differ in form, but are very similar when it comes to their functions in discourse (e.g. Mushin 2013). Secondly, evidentiality as a notional domain is closely connected not only to epistemic modality, but also to other *e-categories*, such as *egophoricity* (Floyd, Norcliffe and San Roque 2018) and *engagement* (Evans, Bergqvist and San Roque 2018a, 2018b), as well as related unlabelled expressions used for negotiating knowledge in interaction. Together, they constitute the domain of epistemicity, to which we now turn.

In this chapter, epistemicity is conceived broadly, as a notional domain related to *knowledge representation* and *knowledge attribution* (cf. Bergqvist and Grzech 2023; Bergqvist 2023) in discourse. Below, we discuss the two parts of this definition in turn. The first part – *knowledge representation* – comprises strategies employed by language users² to (i) (dis)claim knowledge, and (ii) display attitudes towards it. The strategies used for claiming or disclaiming knowledge may be realised by

¹ Terms that instantiate some aspect of epistemicity in the paper are, *epistemics*, *epistemic forms/markers*, and *epistemic expressions*. These can be defined as ‘linguistic forms that signal some aspect of knowledge representation and attribution’.

² The term ‘language users’ includes both speakers and signers. However, since we do not discuss sign languages in this volume, in what follows we will use ‘speaker’ as a default label for the sake of brevity.

both grammatical and discursive means, and include e.g. the speaker signalling authority over knowledge, or commitment to it, or, conversely, lack of authority, or commitment. Attitudes towards knowledge, on the other hand, include e.g. knowledge being accessible, shared, or certain. These different knowledge-related (i.e. epistemic) attitudes that a speaker may adopt serve as a basis for the formulation of linguistic categories such as epistemic modality and evidentiality, but should not be treated as equivalent to these familiar labels. More often than not, forms analysed as belonging to a purported category draw on a variety of epistemic attitudes that go beyond what the category label suggests.

The second part of our definition of epistemicity relates to *knowledge attribution*. For each speaker, knowledge primarily resides in their own mind and is not available to everyone in the same way; therefore, it has to be negotiated in the course of communicative interaction. As part of the discursive negotiation of knowledge, it can be attributed to the speaker, addressee, or other participants and non-participants of interaction. Such negotiations are an indispensable component of how epistemicity should be investigated and explored.

The current set of categories central to descriptive and comparative research on epistemicity can be outlined as follows (cf. Bergqvist and Kittilä 2020 for discussion): *epistemic modality* – necessity and possibility (e.g. Nuyts 2001); *evidentiality* – knowledge access (e.g. Tournadre and LaPolla 2014); *mirativity* – non-integrated knowledge (e.g. DeLancey 1997); *egophoricity* – privileged knowledge (Floyd, Norcliffe and San Roque 2018); and *engagement* – knowledge distribution between speech act participants (Bergqvist and Knuchel 2019). Bergqvist in preparation outlines a functional domain of epistemicity under which such linguistic categories and notions can be subsumed and compared according to their defining features. However, this slate of e-terms is likely not an exhaustive list of categories devoted to representing and attributing knowledge in the languages of the world. We have every reason to believe that there is more to discover in this regard.

The conceptual connections between the defining features of the knowledge-related linguistic and conceptual categories listed above have given rise to an increasing number of studies connecting descriptive linguistics to Conversation Analysis (cf. Veronesi 2024 for an overview). In this line of work, terms like *epistemic authority*, *epistemic responsibility* (Heritage and Raymond 2005; Stivers, Mondada and Steensig 2011), *epistemic vigilance* (Sperber et al. 2010), and the like, have entered the field of epistemic research. As the notional apparatus of the field expands, it also becomes apparent that the epistemic notions ‘imported’ from the CA tradition are relevant to the description of evidential systems, even those previously analysed only in terms of source of information. As a result, it has become clear that accurate descriptions of evidential/epistemic systems require detailed attention to the situational and the social context (Grzech, Schultze-Berndt and

Bergqvist 2020; Bergqvist and Grzech 2023). The field is currently at a stage where it should continue to explore new systematisations in order to arrive at empirically accurate taxonomies.

Accordingly, the main aim of the present volume is to demonstrate the different angles from which epistemic research can be approached, particularly in the context of studying linguistic interaction, and, most notably, everyday conversations. The objective of the present chapter is to describe the state-of-the-art of epistemic research in the third decade of the 21st century, thus providing a background against which this volume can be read. Given the orientation of the chapters in the volume, and our own approach to epistemicity, this overview will focus on the research areas and themes most relevant to functionally-oriented studies of epistemicity:

- 1) Descriptive work on epistemic systems across the languages of the world;
- 2) Comparative/typological research on spoken corpora;
- 3) The interplay of epistemic research with recent advances in the study of interaction and cognition.

The central argument we make throughout the chapter is that analysing – and comparing – corpora of natural(istic) language use is the most effective way to study epistemicity, if we aim to understand the function of epistemic categories in language. To support this argument, we will review the current state of research and outline the challenges and opportunities of a corpus- and dialogue-based approach to descriptive, comparative, typological, and theoretical studies on epistemic expressions and epistemicity as a notional domain.

The chapter is structured as follows: In Section 1.2, we argue for the need to use interactive/dialogical data to conduct empirically supported research on epistemicity, using evidentiality as a case study. Section 1.3 focuses on current opportunities and challenges in corpus-based research on epistemics, covering its descriptive (1.3.1), comparative (1.3.2) and typological (1.3.3) aspects. Section 1.4 discusses the importance of epistemic research for linguistic theory, in the context of recent advances in the study of interaction and (social) cognition. Section 1.5 contains a discussion unifying those themes, and Section 1.6 offers some final remarks.

1.2 A dialogue-based approach to research on epistemicity

In the previous section, we observed that the inquiry into epistemicity evolved from an interest in ‘evidentiality proper,’ understood as marking the source of information (cf. Aikhenvald 2004), towards a broader treatment of epistemic categories,

including notions related to the origins, ownership and shared/exclusive status of knowledge. The main point raised in the present section concerns a different, although related aspect of research on epistemicity: the fact that in order to be empirically substantiated, the study of evidentiality and related categories needs to be based on (or at least consider) natural, interactive language use.

This point is not new. ‘Evidential practice’, understood as the use of evidentials in everyday interaction, is an established strand of research (Mushin 2001; Michael 2008; Gipper 2011; Nuckolls and Michael 2014, a.o.). It has also been observed that evidentials are used differently in artificial/scripted vs. spontaneous language use. In languages that permit their non-occurrence, evidentials can be altogether absent e.g. from elicited sentences, but ubiquitous in ‘high stake’ interactions, where the participants’ face, social position or reputation are at issue (see Grzech, Schultze-Berndt and Bergqvist 2020 for discussion).

Current research also suggests that everyday, face-to-face conversation is the context in which we can best appreciate the full array of discursive functions evidentials can fulfil. Furthermore, the spectrum of these functions is so broad that – in order to account for what such data offers – we should abandon the definition of evidentiality based on information source, and instead aim for one that is grounded in language use, incorporating the pragmatics of evidentials (cf. Bergqvist and Grzech 2023 for a fully-developed version of this argument). This is true not only for newly described systems, but also for ones that have been considered as prime examples of evidentiality as marking of information source. Consider the evidential paradigm of Tuyuca (Barnes 1984; in Matlock 1989:215; cited by Bergqvist and Grzech 2023:5–6 with adjusted glossing):

- (1) a. direct visual
diiga ape-wi
 soccer play-3.VIS.DIR.PST
 ‘He played soccer’ (I saw him play)
- b. direct auditory
diiga ape-ti
 soccer play-3.NONVIS.DIR.PST
 ‘He played soccer’ (I heard the game, but didn’t see it)
- c. indirect visual
diiga ape-yi
 soccer play-3.VIS.INDIR.PST
 ‘He played soccer’ (I have seen evidence that he played: his shoe print on the field, but I didn’t see him play)

- d. reported
diiga ape-yigi
 soccer play-3.REP.PST
 ‘He played soccer’ (I obtained the information from someone else)
- e. reasoning
diiga ape-hiyi
 soccer play-3.ASSUM.PST
 ‘He played soccer’ (It is reasonable to assume that he did)

At first glance, the Tuyuca paradigm appears to exemplify a system encoding differences in information source. However, upon closer examination of Barnes’ (1984) description, Bergqvist and Grzech (2023:6) demonstrate that the contrast between the direct visual marker *-wi* (1a) and the indirect visual marker *-yi* (1c) is not about the directness of evidence, but rather about whether the event in question has publicly observable, predictable properties (e.g. playing soccer), or is the result of unpredictable behaviour by a third party (e.g. behaving crazy, or being sick). In other words, the distinction lies more with notions of agency and the public/private distinction, than type of evidence. Unsurprisingly, such subtle semantic differences are easily overlooked during elicitation or in experimental settings, and may only be fully appreciated and analysed in interactional, situated data.

The dialogue-based approach to epistemic research is not new, having been successfully applied to a significant portion of the field for decades. Evidentiality has been studied not only in languages with dedicated paradigms of evidential morphemes, but also in Standard Average European languages like English and Spanish, where it is expressed through lexical items such as adverbs. Given the high discourse-sensitivity of evidential expressions in Germanic and Romance languages, they are often examined in interactive contexts, and the possible role of (inter)subjectivity in evidential/epistemic research was recognised relatively early on (Bermúdez 2005, see Rosique and Martínez 2020:10–11 and references therein for discussion of the relationship between evidentiality and subjectivity). As a consequence, a significant part of studies on evidentiality in these languages has developed under the umbrella of Conversation Analysis, rather than within the descriptive paradigm focused on morphosyntax, or grammatical theory. For this reason, the strand of research on evidentials in well-known languages was for a long time considered distinct and conceptually separate from the study of dedicated evidential/epistemic paradigms in minority and endangered languages. However, when examining both sub-fields on a language-by-language basis, we see evidence supporting Mushin’s (2013) claim that the morphosyntactic form of an

evidential has little impact on its discursive function. Table 1 illustrates this by comparing functions of evidentials in a subset of indigenous South American languages and Romance languages.

Table 1: Discursive functions of evidentials in Amerindian languages of South America and Romance languages (adapted from (Grzech 2024a, 2024b).

Function of evidentials	Example languages where it is attested	
	Amerindian languages of South America	Romance languages
Indicating individual vs. shared knowledge/judgment	Yurakaré (isolate, Bolivia, Gipper 2011, 2014, 2015) Quechuan (Hintz and Hintz 2017; Jimenez Nina 2022)	Spanish (Cornillie and Gras 2015) Italian (Squartini 2012; Battaglia, Geddo and Miecznikowski 2021)
Indicating relative importance of a piece of information	Quechuan (Muysken 1995; Sánchez 2010; Grzech 2016) Aymaran (Klose 2015) Chipaya (Uru-Chipaya, Bolivia, cf. Hannß 2021)	
Indicating epistemic rights and responsibilities	Upper Napo Kichwa (Ecuador, (Grzech 2020, 2021) North Potosí Quechua (Bolivia, Jimenez Nina 2022)	Spanish (Figueras Bates 2019; Cornillie and Gras 2020)
Attenuating/strengthening a speech act/discursive action	Cuzco Quechua (Peru, Faller 2002) Shipibo-Konibo (Panoan, Peru, Dubuis 2022)	Spanish (Figueras Bates and Kotwica 2020 and references therein; Albelda Marco 2020) Italian (Miecznikowski 2022) Catalan (Cuenca 2023) French (Pekarek Doehler 2022)
Indicating irony, mockery	Jaqaru (Aymaran, Peru, Hardman 2000:94)	Spanish (Santamaría 2009; Rodríguez Ramalle 2020)

Similar to the Tuyuca data in example (1), the semantic distinctions in Table 1 cannot be effectively captured through elicitation, as they depend on the specificity and nuances of the interactional context. They are also elusive for experimental research, given that, as mentioned above, many semantic and pragmatic nuances of epistemic expressions only become apparent in high stake interactions, where the speech act participants’ face or social standing can potentially be affected. Once we gain awareness of the semantic subtleties encoded by evidential marking, it becomes clear that studying it in context – ideally using naturalistic, spoken language – is essential for obtaining empirically accurate results.

1.3 Corpus-based research on epistemicity

As proposed in the previous section, research on epistemicity should be grounded in interactive data, and it follows that it must rely on language corpora – ideally, spoken language corpora. A significant amount of corpus-based work on epistemicity is already underway. In this section, we explore three strands of this research: descriptive (1.3.1), comparative (1.3.2), and typological (1.3.3). For each, we discuss the state-of-the-art, the opportunities they offer the field, and the challenges they face.

1.3.1 Descriptive and documentary work

Descriptive research on epistemic systems has been increasing over the last decades. Since its beginnings in the 1980s, the field has expanded significantly, moving from efforts to disentangle source of evidence from epistemic modality towards more discourse-grounded efforts to describe epistemic systems in use. These efforts have progressed at different paces in different parts of the world. The descriptions of epistemic systems in Amerindian languages, particularly in South America, have been expanding their notional apparatus towards concepts related to interaction, stance, and epistemic authority for about twenty years (see references in Table 1 above). In the Himalayan region, which is a hotbed of egophoric marking systems, the change towards incorporating a broader set of notional categories is more recent and less widespread (cf. Zeisler 2021; Sandman 2024; Simon 2024), but a general move in the same direction is already apparent.

In language documentation and description, work on previously un(der)documented languages is mainly undertaken by PhD students. In the context of a typical PhD project, the language documenter has around 3 years to fulfil the academic requirements for their degree, undertake fieldwork, and – if they are outsiders to the language community – establish relationships with the local stakeholders, learn a new language and navigate a new culture – all that on top of documenting and describing a language, which might not have an established orthography or any prior description. In this context, it is understandable that many descriptions dealing with aspects of epistemicity replicate traditional approaches to describing epistemic marking systems. For evidentials, this means establishing whether they are also epistemic modals, and possibly exploring the scope properties of the attested markers. For egophoric systems, the traditional model requires checking for their distribution with subject persons across sentence types (declarative/interrogative) to confirm the expected patterns. In both cases, this approach entails that the researcher is not necessarily looking into how the forms under investigation are used in everyday interactions.

While the issues outlined above might well be a required introductory step in the description of an epistemic marking system, we also know that it is insufficient for providing an empirically substantiated account of epistemic forms. A comprehensive and detailed description of epistemic marking requires taking into account several aspects of grammar, interaction, and community norms of language use, including, but not limited to, the following (cf. e.g. Kamio 1997; Stivers, Mondada and Steensig 2011; Heritage 2012; Sandman and Grzech 2022; Bergqvist and Grzech 2023):

- Relationship between the speaker and the event;
- Discursive role adopted by the speaker/Stance;
- Knowledge distribution among the speech act participants (SAP);
- Epistemic authority/Territories of Information of SAP;
- Salience/Importance/Information Structure.

Considering these aspects of interaction is a challenging enterprise, and one which might not simply be attainable within the timeframe of a PhD degree, or any other short-term project where the researcher is not previously familiar with the analysed language. Moreover, engaging with the issues presented above requires a certain awareness of prior research, and a command of analytical notions and the literature, which might be unrealistic – and unfair – to expect of a PhD student as a relative newcomer to the field.

This has multiple implications for the field of epistemic research as a whole, and particularly for the documentation and description of epistemic marking systems. Given that we have already identified a number of important parameters for the description of epistemic forms, we should aim to provide descriptive and documentary linguists with tools and manuals for conducting epistemic fieldwork. Some efforts in this direction have been made (e.g. Barth and Evans 2017; cf. Grzech, Schultze-Berndt and Bergqvist 2020 for an overview), and progress with comparable efforts is crucial for the continued investigation of epistemicity and for the development of the field.

The findings of any research can only ever be as good as its design (Taylor and Del Fante 2020:29). In the case of descriptive research on epistemicity, an accurate design begins with clearly formulated identification, categorisation and labelling of key variables. This, in turn, is largely dependent on how the phenomena under study have been labelled and approached previously. Given that erroneous labelling can lead to erroneous research results (Matić and Wedgwood 2013:159), conceptual clarity is paramount, especially in research on epistemic expressions, which – as we argued earlier – needs to take into account a complex situation with interpersonal aspects of context in which the analysed expressions occur.

Any corpus analysis requires “assigning interpretative categories to a particular variable” (Van Enschoet et al. 2024:1). This speaks to the main challenge in the description and analysis of epistemic systems, on all levels (descriptive, comparative, typological). If we assume – in accordance with what emerges from the data in an increasing number of language descriptions – that marking of knowledge is primarily a matter of pragmatics (see discussion in Zeisler 2024), both the identification of the relevant variables and the assignment of interpretative categories become exponentially more complex. The contributions in this volume offer some variables and modes of interpretation within the field of research on epistemic expressions, conceived in this broad fashion. We are aware that it might seem like we are complicating things, and that we risk losing sight of how epistemicity can be delimited (Patrick Dendale, p.c. during SLE2023), but we believe that, metaphorically speaking, this serves to zoom out before zooming in again to find the best possible cadre.

At present, the way researchers describe epistemic markers – especially when they do not conform to well-defined categories like source of information (evidentiality) or speaker involvement (egophoricity) – varies significantly, and is based on arbitrary labels. An example of such terminological inconsistency is the suffix/clitic *=mi* in Quechuan, a South American language family with a paradigmatic set of evidential/epistemic markers. Cognates of *=mi* have been called *validational marker* (Tarma Quechua, Adelaar 1977), *direct evidential* (Wanka Quechua, Floyd 1997; Imbabura Quechua, Cole 1982; Conchucos Quechua, Hintz and Hint 2017), *best possible grounds evidential* (Cuzco Quechua, Faller 2002), *speaker perspective marker* (Pastaza Quichua, Nuckolls 2012), *epistemic authority marker* (Tena/Upper Napo Kichwa, Grzech 2016, 2020), and *assertional force marker* (Conchucos Quechua, Bendežú-Araujo 2023). While the semantics and pragmatics of *=mi* differ across varieties, these various labels address different aspects of meaning and use, making comparisons quite challenging. Concerns for continuity further complicate this picture. In some varieties *=mi* lacks source-of-information semantics (see also Bendežú-Araujo and Grzech, this volume). Yet, many researchers, including the first author of this chapter, hesitate to abandon the label ‘evidential’ for fear of disconnecting from the existing literature.

Terminological inconsistency is not unique to Quechuan; it reflects a broader issue within descriptive research on epistemicity, and other parts of the grammatical design space. We are often compelled to rely on pre-existing labels and frameworks, even when we are aware that they do not fully capture the phenomena we study. Additionally, we are often not explicit about the interpretation of the labels we use. As a consequence, we push the authors of new descriptive studies in the same direction. The result is a Gordian knot of terminology, where each thread represents an established yet potentially outdated label that complicates, rather than clarifies, our understanding of the bigger picture.

A first step towards disentangling that knot, and establishing a baseline for future descriptions of the understudied epistemic systems could be to decide which specific semantic/pragmatic parameters are essential to consider. This resonates with the idea of comparative concepts (cf. Haspelmath 2010), whereby explicitly describing discourse functions of a given expression is more important than the label it is assigned. A catalogue of basic parameters and functions of epistemic expressions could serve as such a baseline for future work in this area. New research could explicitly acknowledge whether each of them was considered, and, if not, explain whether it was found to be (ir)relevant, or whether no sufficient/adequate data were available. Addressing these parameters systematically would not only lead to more robust descriptions, but also provide a more cohesive framework for comparative and typological studies, to which we turn in the following sections.

1.3.2 Comparative research

Comparative studies of epistemic systems – e.g. comparing how epistemic marking works in a small sample of languages – are relatively limited in number and scope. To the best of our knowledge, the most explored avenue of research in this regard is the comparison of evidential expressions in varieties of Latin American Spanish with evidentials from Amerindian languages, notably Quechua (e.g. Babel 2009; Dankel 2015; Dankel and Soto Rodríguez 2012, 2022; Soto Rodríguez and Dankel 2023) and/or Aymara (Quartararo 2017; Dankel et al. 2022), in order to explore the effects of language contact. There have also been limited efforts to compare languages of different types that are not in contact, e.g. English and Tibetan (Mélac 2023), or Kichwa and Wutun (Sandman and Grzech 2022). In general, however, given the amount of descriptive research on epistemic systems and strategies in the languages of the world, comparative studies are relatively underdeveloped.

The existence of this lacuna is not surprising, given multiple difficulties with comparing epistemic systems and strategies. The issues are not limited to terminological differences, as outlined in the previous section. For comparative studies to be viable, one needs to establish a baseline for what should be compared, i.e. decide on the categories to be studied, and ensure the availability of comparable data sets. In the case of epistemic systems, this is challenging for a number of reasons.

A hurdle particular to comparative research is the disparity of approaches applied in the descriptive studies of epistemic systems. There are obvious asymmetries between traditions of research that depend on available resources and historical contingencies. Research on Standard Average European mainly use methodologies drawing from Conversation Analysis, while most studies of epistemic systems in minority and endangered languages (at least until relatively recently)

focus on morphosyntactic description. This difference is gradually being bridged by the emergence of more CA-like studies for minority languages (see Section 1.3.1), and the creation of more corpora of naturalistic speech for these languages as part of language documentation efforts. Other difficulties in designing and executing comparative studies are less particular, and apply to any comparative research, not just the study of epistemics. They fall into three main categories: (i) design of comparable corpora, (ii) design of the analysis, and (iii) interpretation of findings (Taylor and Del Fante 2020:34). These are discussed in turn below.

The design of comparable corpora is possibly the least challenging of the three difficulties. It is true that vast differences exist between the available spoken corpora of majority languages, such as English and Spanish, and indigenous, endangered languages. However, it is possible to establish a common baseline in several ways: selection of sub-corpora, normalisation of frequencies per million words/tokens, selection of the same number of tokens from the languages to be compared, etc. An important point in selecting comparable corpora is that of comparability of genre across different languages. As Taylor and Del Fante (2020:34–35) rightly point out, the first step is to corroborate whether a particular genre exists in the languages to be compared.³ The following crucial step concerns corroborating the discursive function of the genre – for example, if we imagine comparing origin narratives in British English and in any Amerindian language spoken by a community of hunter-gatherers in the Amazon, the genre might receive the same label, but its cultural functions, contexts of use, and interpretations would be vastly different across the two speech communities, and thus not directly comparable.

The second issue is the design of the comparative analysis. This is a complex task consisting of several steps. If we consider the basic tools of corpus linguistics, such as frequency analysis, keyness, or collocation, these are all based on the assumption that we compare lexical items/constructions, and that we need to identify meaningful language units for comparison (cf. Taylor and Del Fante 2020:35). However, as discussed in Section 1.1, we already know that epistemic expressions are functionally similar, irrespective of their morphosyntactic status. For this reason,

³ The notion of genre is admittedly complex and the use of this term in the current discussion does not make a clear distinction between emic and etic approaches to the identification and definition of genre. It is clear that an etic view (e.g. a narrative on some topic) is easier to start from, but as part of the documentation of an indigenous language, it is important to go beyond such ad hoc conceptions of genre and approach their study from the speakers' perspective. For comparative purposes, some of the details resulting from such efforts may be backgrounded to allow for effective comparison between data sets. Such compromises are not specific to the definition of genre, however.

when comparing epistemic expressions in different languages, it is important to focus on function rather than form. For instance, the English adverb *reportedly* should not be directly compared to adverbs in languages like Cuzco Quechua, which have their own ways of expressing reportative meanings via dedicated morphemes. Consequently, the design of analysis must also include a phase in which “functional equivalence is operationalised in a replicable and transparent manner” (Taylor and Del Fante 2022:35), so as to enable establishing clear coding/analysis categories, and ensure replicability on the one hand, and validity on the other (Taylor and Del Fante 2020:39; Van Enschoot et al. 2024:4). This is not a trivial task and it requires familiarity with the context of use for a given expression (Taylor and Del Fante 2020:36), as pointed out by Evans (2021:53–55) regarding social cognition in Dalabon. This issue is also paramount for the study of epistemics.

The third challenge – the interpretation of the findings – raises a particular set of problems in the context of comparative, corpus-based studies of epistemic expression, well beyond the challenge of obtaining comparable corpora, discussed above. In corpus-based research on majority languages, the heuristics for objectivity of data interpretation is inter-annotator agreement. In general, including more coders makes studies more reliable (Potter and Levine-Donnerstein 1999; cited by Van Enschoot et al. 2024:15) and allows for a better understanding of the researched phenomenon (Van Enschoot et al. 2024:15). In research on majority languages, it is common to have multiple annotators for the same data, given that the availability of trained native-speaker coders is not an issue. The opposite is true for corpora of indigenous, endangered languages. In this case, there are often very few native speakers who can work as annotators, and – in a vast majority of cases – an even more limited number of expert linguists/anthropologists. The sheer number of available annotators might, however, not be the biggest issue here. Having two or three coders is seen as sufficient for practical reasons, and this number might well be achievable for majority and minority language corpora alike.

What is potentially more problematic is the reliability of annotators. For most of the minority and endangered languages, a realistic setup is such that the main annotator for epistemic corpus analysis would be the language documenter or the anthropologist working with the speech community. As of 2025, these people are still, for the most part, non-native speakers of the languages in question. To annotate epistemic, context-dependent meanings is an utterly difficult task for non-native speakers, and this creates a disparity between the annotation of minority and majority language corpora. In the latter case, as mentioned above, researchers tend to be native speakers, and many more annotators are readily available. This can bear on the possibilities of comparison, and on the overall findings of a given research project.

That said, the interpretation of research results is always subjective no matter what the research topic and setup are, and rather than trying to eliminate it, we

should aim to account for it (cf. Taylor and Del Fante 2020:41). On that front, majority language research might well have something to learn from studies on indigenous minority languages, which tend to be much more transparent about the data used, the types of coding decisions made, and the caution that should be exercised when extrapolating from the results of a particular study.

In sum, comparative research on epistemic systems is an area where much remains to be done, and methods for such research have yet to be explored, due to differences in data, as well as the notional apparatus, especially between minority and majority languages. As our understanding of epistemic systems develops, this area of study may reach a more articulated consensus about what meaningful results should be based on. In-depth comparisons of how epistemic systems are used would have much to contribute to our general understanding of both epistemic practice, and an empirically-grounded theory of this rich notional domain.

1.3.3 Epistemics in linguistic typology

While comparative studies can provide a more in-depth understanding of particular phenomena, as well as empirically supported generalisations, a cross-linguistically applicable theory of epistemicity needs to be informed by typological research. At this stage in the field's development, the big research question for epistemic typology is: Why and to what ends do humans use epistemic expressions? This question aligns with the functionally-grounded research perspective that we advocated for above.

Orienting typological research on epistemicity towards a functional, interactional perspective marks a departure from the simplistic view of epistemicity as reducible to a set of simple binary oppositions, e.g. direct vs. indirect evidence or involvement vs. non-involvement, in favour of a more nuanced picture in line with epistemicity as a functional domain. Usage-based typologies of epistemicity may help us understand how humans collaboratively create and manage knowledge in face-to-face interaction. This is timely, since interaction is increasingly acknowledged as fundamental to most topics of research in linguistics.

However, research on the typology of epistemics is also fraught with challenges. Traditional typology uses descriptive grammars as a primary source of data. As shown in Section 1.3.1, traditional grammars are not necessarily a reliable data source for the investigation of epistemic marking. Until quite recently, most of the parameters relevant to empirically-grounded descriptions of epistemics were either not acknowledged by descriptive linguistics, or seen as marginalia, and, consequently, not systematically incorporated into grammars. For majority languages,

this was to some extent counterbalanced by research on epistemics within more conversation analytical frameworks, where language use and epistemic strategies are considered in detail, but also in a manner that is not amenable to typological generalisations.

Wiltshko (2021:205) argues that '[f]or a typology to be useful, the parameters defining the types have to be primitives that can be applied to all forms and hence to all languages.' Consequently, the main challenge for a functionally-oriented typology of epistemics is to make sure that we compare like with like, i.e. identifying the relevant parameters and variables for comparison. Another issue is the sourcing of data amenable to typological research. Prompted by the natural starting point for research on epistemics, a possible typological approach is Corpus Based Typology (henceforth CBT), which aims to capture 'intra-linguistic variation in language use and its relation to aspects of language systems' (Schnell, Haig and Seifart 2021:6; cf. Schnell and Schiborr 2022; Levshina 2022). To date, however, this approach has mainly focused on linguistic phenomena that are frequent and relatively context-independent, e.g. issues related to word order, or phrase length (cf. Schnell and Schiborr 2022). Moreover, much of CBT research is based on corpora of oral, but monologic texts, such as DoReCo (Paschen et al. 2022). Typological research on epistemics, which are inherently intersubjective expressions, is more challenging, as it needs to be based on data that are both naturalistic and interactive (cf. Section 1.3.1). For these reasons, the CBT approach would have to be extended to support the investigation of sometimes infrequent forms, as well as to include dialogic speech, in order to be regarded as a well-suited framework for cross-linguistic research on epistemic practices.

A related approach is the use of parallax corpora, i.e. corpora of several languages that are not exactly parallel, in that they cannot be compared word-for-word, but which were created using the same protocol. A state-of-the-art example of this is the SCOPIC project (cf. Barth and Evans 2017) which aims to study linguistic aspects of social cognition, collecting interactional data with the help of a set of visual stimuli called the *Family Problem Picture Task*. A detailed description of the project's method is outside the scope of this chapter, but as a typologically viable, methodological approach to epistemics, the parallax corpora produced within the SCOPIC project have several advantages. For example, they are interactive and purposefully designed to explore social cognition, and allow an insight into how knowledge rights and obligations are negotiated in dialogic interaction. The collection and coding of this type of data is extremely time-consuming, however, and their creation requires substantial time and effort from individual researchers in order to add to the existing resources, and to make possible large scale research on aspects of epistemicity inside this framework. This requires that the involved researchers are committed to the study of social cognition and that they have an

interest in coding for stance and epistemic marking in the language(s) they work on. For the data sets that are already annotated and available, another issue is identifying a large enough number of tokens from which to generalise within individual languages, going back to a more general problem associated with research on epistemic marking.

Based on the above discussion, we argue that there are two types of prerequisites for functionally oriented, typological research on epistemics. Firstly, it requires interactional data for a sufficiently large number of languages to enable cross-linguistic comparison. Secondly, the data must support meaningful comparison, both in terms of similarity of content, and in containing enough tokens of different types of epistemic phenomena.

In light of these requirements, we need to continue developing methods to compare corpora of natural conversation. Such efforts are already part of the emerging field of pragmatic typology (cf. Dingemanse 2014), dedicated to the cross-linguistic, comparative study of language in social interaction. Within this framework, we have so far seen two major approaches to data. The first is the ‘natural control method’ (Stivers et al. 2009) which compares interactional structures, such as question-answer pairs: the object of comparison is thus defined on a structural basis. The second is the ‘sequential control method’ (Dingemanse and Floyd 2014), which compares types of interactional sequences oriented towards a certain common function, e.g. ‘thanking’ (Floyd, Norcliffe and San Roque 2018) or ‘recruitment’ (Floyd et al. 2020). These methods for studying various aspects of language use as social action align with the methodological and analytical goals of the present study, yet they may not be entirely transferrable to epistemic research. Keeping in mind Wiltchko’s (2021) point – the need to use parameters that can be applied to all types and all languages – epistemics cannot be equated with the interactional structures and sequences they occur in.

A potential development of this approach would include starting from the possible configurations of knowledge in interaction. This can be modelled, given that there is a limited number of speech act participants (speaker/signer, addressee, audience), and a limited number of ways in which features such as ‘knowing’, ‘authority’, and ‘responsibility’ can be distributed amongst them. This approach can benefit from the fact that in our social interactions, we routinely find scenarios which are likely cross-linguistically valid and characterised by a specific distribution of relevant epistemic parameters, e.g. interactions between a master and an apprentice, or a caretaker and a child. This kind of approach to comparing epistemic systems has been successfully applied by Sandman and Grzech (2022), using methods from CA and interactional linguistics (cf. Couper-Kuhlen and Selting 2017), but it has yet to be tested across a larger number of languages.

Despite the challenges outlined above, the future of epistemic typology lies in finding methods to explore, compare and analyse corpora of language-in-use. By focusing on natural data and aligning typological and pragmatic approaches, we can develop a richer understanding of epistemic practices. This will not only enhance cross-linguistic generalisations, but also contribute to refining linguistic theories of knowledge distribution and negotiation in interaction.

1.4 Epistemicity, interaction and cognition

In the previous sections, we explored different approaches to empirical research on epistemicity from a synchronic perspective. Research on the evolution epistemics may further enhance our understanding of language development and change, and offer a perspective on language as a cooperative, social project.

‘Social and relational concerns, rather than cognitive ones’ (Stivers 2012:208; Drew 2018) are increasingly acknowledged as important for explaining the instrumental role of language use in the development of human sociality. In line with this view, interaction is now recognised as relevant for both the emergence of language (e.g. Planer and Sterelny 2021; Christiansen and Chater 2022; Fedorenko, Piantadosi and Gibson 2024), and for its structural properties (see Wiltschko 2021). Fedorenko, Piantadosi and Gibson (2024:583) argue that it is more plausible that language has evolved as a tool for communication, rather than thought, and that it ‘reflects, rather than gives rise to, the signature sophistication of human cognition. Instead of providing the key substrate for thinking and reasoning, language likely transformed our species by enabling cross-generational transmission of acquired knowledge.’

Building on similar observations, researchers across the language sciences advocate for abandoning the dichotomy between interaction and cognition, focusing instead on their dynamic interplay. They emphasise that our understanding of language, communication, and cognition can benefit from ‘looking beyond single minds toward cognition as a process involving interacting minds’ (Dingemanse et al. 2023). Pragmatic theory also reflects this shift, with new proposals highlighting the role of the addressee and the creation of meaning as a collaboration between the speech act participants, rather than a one-way transmission from the speaker to the addressee (Hansen and Terkourafi 2023).

Evidence confirming that interaction is at the very core of language evolution is also found on a much more concrete level: in the meaning of particular linguistic expressions. Jara-Ettinger and Rubio-Fernandez (2024) argue that demonstratives –

a basic word class, documented in all known languages, and one of the first ones to be acquired by children – have, as their primary meaning, not the spatial distribution of objects, but the distribution of attention. Their findings suggest that ‘listener attention – and joint attention in particular – is computed and accessed even in the simplest linguistic events’ (Jara-Ettinger and Rubio-Fernandez 2024:7) and that ‘language might not only encode visual attention (where to look in visual space) but also mental attention (where to search in conversational history)’ (Jara-Ettinger and Rubio-Fernandez 2024:8).

These findings are important for the conceptualisation of epistemicity presented in this chapter. If demonstratives have the distribution of attention as their primary meaning, it is reasonable to assume that similar meanings can be encoded elsewhere in the deictic field (Bühler 1990). It is thus not controversial that, consistent with descriptive studies of language-in-use in an increasing number of languages, epistemic marking is inherently interactional, rather than primarily encoding source of information/involvement, and having various ‘pragmatic extensions’ (cf. Aikhenvald 2004). Claims to this effect have been made recently from a descriptive standpoint (Bergqvist and Grzech 2023), and the fact that experimental and cognitive research converges on similar results lends them increased credibility.

Empirically grounded, functionally oriented research on epistemics is an avenue for discovering more about the possible role of knowledge-related negotiations in the development of human sociality and societies. Previous research suggests that epistemic markers can be analysed as tools for managing the common ground (Grzech 2020). Hence, they can be conceptualised as resources for solving potential conversational conflicts, indicating relative importance of referents, negotiating stance, and many more fine-grained linguistic and social actions. This is in line with proposals that information management should be conceptualised as more complex than it has been to date (Ozerov 2021; Matić 2022). This approach also provides plausible theoretical links between epistemicity and information structure from a theoretical point of view (e.g. Rosique and Martínez 2020) and an empirical (e.g. Grzech 2020; Bendežú-Araujo 2023) viewpoint.

In sum, epistemic research can provide additional support for current work on the evolution of language and human sociality. It lends support to the argument that communication is a core motivation for the development of linguistic systems, as the main function of epistemics is facilitating the coordination of knowledge states between interlocutors. The famous claim that ‘grammars code best what speakers do most’ (DuBois 1985:362–63) is now being supported by experimentally grounded studies into language evolution, claiming that ‘[l]exical systems also show hallmarks of adaptation to specific communicative needs, more densely covering the parts of a conceptual space that a given community needs’ (Fedorenko, Piantadosi and Gibson 2024:581 and references therein). If that is indeed the case,

then the complexity of epistemic meanings encountered cross-linguistically, and the pervasiveness of epistemic expressions (lexical and/or grammatical) in the languages of the world invite many hitherto unanswered research questions about the role of knowledge negotiation in the development of language and sociality.

1.5 Discussion

In this introductory chapter, we have outlined the current state of research in the field of epistemicity and pointed to some problems this field currently faces. We have introduced various notions (Section 1.1) and provided a rationale for functionally-oriented, interaction-based approaches to epistemicity as the most promising avenues of research (Section 1.2). Subsequently, we have discussed the main opportunities and challenges in current descriptive, comparative, and typological research on epistemics (Section 1.3). Finally, we have ventured to connect data-driven, functionalist approaches to epistemic research with recent advances in the study of language evolution and the links between sociality and cognition (Section 1.4).

Against the backdrop of this extended discussion, we now come back to the overarching topic of this volume: expanding the boundaries of epistemicity. The previous sections have sketched several of these boundaries, and have provided some suggestions for specific directions in which the field can advance. This section focuses on *how*, *why*, and *to what end* we should keep studying epistemicity, as well as on ways to expand the scope of this research as it progresses.

What the field needs the most is a coherent and consistent approach to exploring the diversity of epistemic expressions encountered in the languages of the world. Thus far, research on grammaticalised epistemic paradigms in less well-known languages (which tend to be indigenous minority languages), and on epistemic expressions in well-known majority languages has been advancing in parallel, without much exchange, and using different analytical frameworks. This has slowly started to change in recent years, with the integration of approaches informed by Conversation Analysis and Interactional Linguistics into the research on epistemic in minority languages.

However, for the field of epistemic research to become more unified, we need further adjustments from both directions. Research on (mostly) lexical expressions of epistemicity in majority languages needs to develop an awareness of the work being done in less-well known languages, and incorporate descriptive and documentary findings into its proposed theorisations. Descriptive research on minority languages, on the other hand, should look beyond a semasiological approach,

focusing on particular markers and the meanings they encode, and attempt to study broader categories of epistemic meaning and their expressions in different parts of grammar and the lexicon. Admittedly, given the restricted time and resources descriptive linguists usually have at their disposal, this can be a challenging avenue to pursue, but it should at least be acknowledged as the preferred direction for the further development of the field. By integrating research on well-known and lesser-known languages, we can develop a unified set of questions across the discipline.

This more inclusive approach would also allow us to change the types of questions we ask, particularly within descriptive linguistics. To paraphrase Verhagen's (2021, lecture 9) point on the direct vs. indirect speech dichotomy, we should not be asking whether language *x* has an indirect or direct evidential, but rather what are the tools made available in a given language to negotiate/manage knowledge ownership between speech act participants. Shifting to this type of focus will allow us to gradually build an understanding of why and to what end we use epistemics, moving beyond the current emphasis on what epistemic marking systems look like in different languages. In short, it would allow a transition from research on forms towards research on functions. After addressing this question, we may circle back to form, asking – again, paraphrasing Verhagen (2021) – why certain kinds of epistemic tools appear more or less frequently, and why certain semantic/functional distinctions are geographically restricted.

Such an approach would allow us to build a more holistic picture of the domain of linguistic epistemicity. It would also push on another boundary of epistemic studies: the applicability of our findings, not just within linguistics, but within broadly conceived research on human sociality and human mind. When we consider the field's development, from the first conceptualisation of evidentiality (Boas 1911), through the rise of modern interest in the notion (Chafe and Nichols 1986), towards the multiplicity of issues and approaches currently included in epistemic research, we see that the field has been moving from the fringes of linguistic enquiry towards its centre stage. Epistemic research has evolved from a niche study of semantic marginalia in 'exotic' languages into a major discipline that now draws significant attention, even filling lecture halls at international conferences. This growth highlights the increased recognition of epistemicity as central to our understanding – and use – of language.

With this in mind, when we think about further expansion of the boundaries of epistemicity, it does not seem like an overtly ambitious goal to have the field occupy a more central stage not only within research on language sciences, but also in their teaching. It is our hope that within the next few decades, we will see this subject area incorporated into curricula of teaching in and beyond academia, as well as systematically included in grammars and in manuals for linguistic fieldwork.

1.6 Conclusions

This chapter has discussed different facets of epistemic research, focusing on how its current goals and perspectives can be expanded and developed in future research. It proposes clear, actionable suggestions for this development and, given the scope of discussion, the aim for this concluding section is to highlight the most important take-away points.

First and foremost, the chapter has argued that epistemic research can only deliver reliable results if it is based on interactional data. For this reason, it is paramount that epistemic studies be based on spoken language corpora. In order to account for the use of epistemics, we need to consider the broader interactional and social context in which these markers and expressions are used.

Secondly, the field should incorporate data from both well-known and minority languages, and develop methodologies for comparing data from typologically different languages that also differ vastly in terms of resources, such as availability and sizes of corpora, the number of annotators, and the extent to which our interpretation of language-internal epistemic distinctions can rely on native-speaker intuitions. This is a work in progress, and an important goal for the field of epistemic studies to be achieved in the coming years.

Advances in these areas are essential not only for empirical accuracy, but also to make research on epistemicity more relevant and accessible to linguists and scholars in related fields. A more integrated approach will enable better generalisations about knowledge distribution and negotiation, and will help account for their pervasiveness in the world's languages, thus shedding light on human cognition and sociality. Epistemic research offers valuable insights not only into how we conceptualise knowledge, but also into how we create, structure, and maintain our social realities, as well as into the evolution of language itself.

The papers collected in this volume approach the above issues from a variety of angles, focusing on 'Epistemicity and context: different approaches to situated analysis of epistemic expressions' (Part 1), 'Change and development of epistemic meanings' (Part 2) and 'New parameters in epistemic research' (Part 3).

Part 1 begins with **Chapter 2**, in which **Catarina Mauri** and **Silvia Ballarè** examine the functions of the Italian verb *capire* ('to understand') in interaction. They demonstrate that explicit references to the process of understanding can serve a wide range of interactional functions that go well beyond the verb's lexical meaning. In Italian, these functions include establishing and maintaining joint attention, as well as constructing nuanced epistemic stances. Their analysis shows that a close examination of epistemic verbs can offer valuable insights into the inner workings of the 'epistemic engine' (Hertiage 2012), and shed light on the contextual and intersubjective factors to which it is sensitive.

In **Chapter 3**, **Elena Battaglia** and **Johanna Miecznikowski** approach the analysis of epistemicity in Italian interaction from a different angle. They apply the notion of *evidential frame* to the analysis of hearsay, and discover that referring to second-hand information can be used for diametrically opposed discourse purposes. The study also highlights the importance of detailed analysis of specific constructions including accounting for their sequential position when analysing and explaining epistemic meanings that arise in language-in-use.

Chapter 4, by **Rebeka Kubitsch**, investigates indirect evidentiality in Udmurt, a Uralic language spoken in the Russian Federation. In Udmurt, evidentiality is morphologically fused with tense. Kubitsch convincingly argues that previous descriptions of the language have overlooked the significant context sensitivity of its evidential markers. She demonstrates that the system is responsive to factors such as epistemic authority, reliability of information, and whether or not it has been assimilated by the speaker. The chapter highlights the value of studying epistemic marking within rich interactional contexts, as well as the relevance of re-visiting early analysis of epistemic systems, especially those that did not consider the potential relevance of intersubjectivity for describing and analysing epistemic forms.

Finally, in **Chapter 5**, **Jiahong Wang** and **Yam Leung Lawrence Cheung** describe pragmatically-motivated flexibility of use of the egophoric practice in Golog Tibetan. The study compares prototypical and non-prototypical distributions of (non-)egophoric copulas. The authors derive heterogeneous uses of the egophoric system from conventional associations between subject persons and epistemic authority, and from the interaction of these factors with the types of constructions where the copulas occur. These findings reinforce a central theme of the volume: that an accurate analysis of how epistemicity works requires considering social, discursive, and grammatical factors together, as parts of an intricate background that shapes the meaning and use of epistemic forms.

Part 2 of the volume explores how epistemic meanings develop and change. It opens with **Chapter 6**, in which **Karin Aijmer** re-examines the relationship between the English epistemic adverbs *maybe* and *perhaps*. Using a corpus-based approach, she investigates what it means for epistemic adverbs to be synonymous, focusing on their semantics, positions in utterances, and the sociolinguistic profiles of the speakers who use them. The study highlights the interplay between social and morphosyntactic factors, emphasising the need for a holistic approach for adequate analysis of epistemic expressions.

In **Chapter 7**, **Christian Döhler** examines demonstratives in Komnzo, a Yam language spoken in Papua New Guinea. He shows that these expressions fulfill a range of epistemic functions – from establishing joint attention to signalling epistemic proximity to an event. The chapter underscores the semantic and

morphosyntactic heterogeneity of Komnzo demonstratives, and invites reflection on both the developmental paths of epistemic marking systems and the inherently deictic nature of epistemic meaning.

Chapter 8, by **Pierre-Yves Modicom**, concludes this part with a corpus-based study of epistemic verbs in Danish, Norwegian, and Swedish. The chapter explores how these verbs interact with first- and second-person subjects, analysing the morphosyntactic, semantic, and pragmatic properties of the different subject-verb combinations. The study uncovers ongoing processes of pragmaticalisation, whereby certain epistemic verbs are evolving into discourse markers, and thus contributes to our understanding of how grammaticalised epistemic expressions can emerge.

The three chapters comprising Part 2 illustrate the flexible and dynamic nature of epistemic meaning. They also highlight how the different aspects of the morphosyntactic, discursive and social processes affect the use of epistemic expressions, ultimately bringing about change in their use and meaning.

Part 3 comprises two final chapters. **Chapter 9**, by **Shahani Singh Shrestha**, examines the egophoric system of Kathmandu Newā. The author argues that the system includes not two, but three egophoric choices—among them, a zero EGO form. Her analysis shows that marker selection is influenced not only by the origo's involvement in the event, but also by factors such as intended formality and the (a) symmetry of social status between interlocutors.

Chapter 10, by **Raúl Bendezú-Araujo** and **Karolina Grzech**, revisits the analyses of evidential systems in two Quechuan languages spoken in Peru and Ecuador. The authors argue that incorporating the notion of speaker commitment allows for a more nuanced understanding of Quechuan evidential practice. Their proposal bridges two research traditions—formal semantic and descriptive—and shows how the concept of commitment can serve as a point of convergence, deepening our understanding of how evidentials are used in Quechuan and beyond.

Together, Chapters 9 and 10 highlight parameters that have often been overlooked in descriptions of epistemic systems, yet prove central to epistemic practices across diverse languages and communities. How many more such factors remain to be uncovered remains an open question. Together, the ten chapters in the volume sketch a diverse, but accurate picture of where the field of epistemic research stands in 2025, and signal the different directions in which it is likely to develop in near future.

Abbreviations

3	3 rd person
ASSUM	assumed
DIR	direct
INDIR	indirect
NONVIS	nonvisual
PST	past
REP	reportative
VIS	visual

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Part 1: **Epistemicity and context:
different approaches to situated analysis
of epistemic expressions**

Caterina Mauri and Silvia Ballarè

2 To understand in interaction: the rise of epistemic and evidential constructions based on *capire* in spoken Italian

Abstract: This study explores the use of the verb *capire* ‘to understand’ in spoken Italian, focusing on its epistemic and evidential constructions. Using data from the KIParla corpus, the research investigates the discourse functions of *capire* beyond its lexical meaning. The analysis reveals how the verbalization of ongoing understanding in linguistic interaction is often motivated by goals connected to the success of the communication flow, such as backchanneling and attention-getting, but also to the management of shared knowledge during conversation, such as hedging, arguing, or communicating surprise. The study also examines the sociolinguistic variation in the use of constructions based on *capire*, showing that the possibility to explicitly mention the process of understanding is closely dependent on the symmetric vs. asymmetric relation between the interlocutors, the register, and the goal of the interaction.

Keywords: interactional epistemicity, shared understanding, sociolinguistic variation, spoken Italian, emerging constructions

2.1 Introduction: the explicit marking of comprehension in interaction

Comprehension is an essential element of human communication, inherently present in every interaction between speakers. Comprehension occurs even if interlocutors do not explicitly refer to it: the continuous flow of communication is in itself a sign that the message has been received and understood. It is indeed typically more urgent to mention the problems that occur in understanding and overtly signal *misunderstandings*, because they can stop the communication flow, as shown by universal patterns attested across languages with respect to so-called other-initiated repair strategies (Dingemanse et al. 2015).

Note: The present article is the result of a close and systematic collaboration between the two authors. Caterina Mauri was responsible for writing Sections 2.3.3, 2.3.4, 2.4 and 2.5, while Silvia Ballarè wrote Sections 2.1, 2.2, 2.3.1 and 2.3.2.

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The assumption that comprehension occurs unless otherwise indicated aligns with a broader principle in pragmatics: what is frequent, normal, and taken for granted often remains unexpressed in conversation. In addition to the Quantity maxim by Grice (1975), we know by Levinson's heuristics (2000; cf. also Horn 1984) that speakers tend to minimize verbal output, trusting that listeners will infer typical and recurrent meanings from context. Conversely, when a speaker does use a more marked form or makes a typical situation explicit, it indicates that something unusual, or additional, is at play. Recent studies provide empirical evidence for the fact that predictable information tends to be omitted in spoken language (cf. Fedorenko, Piantadosi and Gibson 2012; Gibson et al. 2019).

Given its predictability, ongoing comprehension by interacting speakers is a good example of the general economic principle just described, therefore we expect that reference to speech act participants (i.e., 1st and 2nd person) understanding is typically left implicit in spoken interaction, unless it is challenged, problematic or atypical for some reasons. Our hypothesis is that, when speakers choose to verbalize the ongoing process of understanding, they are likely to be signaling something about the interaction itself, indicating concern about potential misunderstanding or managing the social dynamics of the conversation. The verbalization of comprehension might also be employed to draw attention to the communicative process, to ensure mutual understanding, or to emphasize the speaker's involvement in the conversation.

The act of explicitly verbalizing ongoing comprehension or misunderstanding is likely to have significant implications at the epistemic and evidential level. As argued by Grzech, Schultze-Berndt and Bergqvist (2020:282; cf. also Pietrandrea 2018:194–195), the concept of epistemicity refers to the linguistic encoding of *knowledge*, including those aspects that are connected to the context of ongoing interaction (e.g. mutual expectations and attention). When interacting, speakers need to signal their level of certainty about what is being communicated and how accessible the supporting evidence is for the interlocutors, whether the evidence is perceptual or inferential. Consequently, the relationship between speaker and listener and, even more, their interaction is crucial in building the epistemicity domain, especially as far as the negotiation and co-construction of shared knowledge is concerned.

Successful comprehension between interlocutors indeed enhances epistemic certainty, meant as confidence in the truth or correctness of the information exchanged (cf. Nuyts 2001; Kärkkäinen 2003), and reinforces the inferential evidence that supports the ongoing conversation. Conversely, a failure to understand the interlocutor's message diminishes epistemic certainty and weakens the inferential support, potentially undermining and disrupting the shared foundation of the interaction (cf. Lindström, Maschler and Pekarek Doehler 2016). As argued

by Cappelli (2007), cognitive verbs activate in the listener a search in memory for information that may confirm or refute the speaker's conclusion, prompting the listener to seek new evidence and engage in a verification process by comparing contextual and inferential information with the speaker's point of view.

This study aims to analyze when and why speech act participants (SAP) in conversation explicitly refer to ongoing comprehension, starting from the hypothesis that they are likely to do it for reasons that go beyond mere reference to the process itself, embracing interactional, epistemic, and evidential goals (cf. also Rhee 2001). Based on the analysis of the KIParla Corpus (Mauri et al. 2019), we will consider the case of spoken Italian, by analyzing the occurrences of the verb *capire* 'to understand' that are used with discourse functions that exceed lexical reference¹ to comprehension, as in examples (1) and (2).

(1) KIParla Corpus, PTB019

- TOR009: *ecco [com- com' era, il rapporto con e::h]*
well how how was DEF relationship with eh
 'Well, how was the relationship with'
- TOI071: *[perchè noi, abbiamo::: usu]rpato, va' a*
because we AUX:1PL usurped go.IMP.2SG to
capire, il loro::: e::h la loro città
understand DEF their eh DEF their city
 'because we usurped, **go figure** their eh eh, their city'

The construction *va a capire* (lit. 'go to understand') in (1) is used to signal the speaker's perplexity and doubt regarding what she is saying, with an epistemic meaning close to 'who knows', 'go figure'. A different construction can be observed in (2), where the impersonal form *si capisce* (lit. 'one understands') is employed with an evidential function denoting obviousness and inferential evidence accessible to anybody, meaning 'of course, it is evident':

¹ An example of *capire* employed solely in its lexical meaning is the following:

(i) KIParla, TOA3008

TO052: *però poi lui nella mail ha det[to,]*
 'however in the email he said'

TO048: *[e]h non ho capito la frase della mail*
 'eh I **haven't understood** the sentence in the email'

(2) KIParla Corpus, PTB003

TOI018: *perché prima di partire, m' avevano fatto un'*
 because before of leave 1SG.OBL AUX:IMPF:3PL done INDEF
iniezione di calmante. e si capisce e:h
 injection of sedative and IMPERS understand:3SG eh
[si era calmato], finché sono arrivata lì
 IMPERS AUX:IMPF:3SG calmed until AUX.1SG arrived there
non aveva più male
 NEG have:IMPF:3SG anymore pain
 ‘Because before leaving they gave me a sedative injection and, **of**
course, eh it calmed down [the pain], until I arrived there I didn’t
 have pain anymore’

This study aims to identify the functions conveyed by *capire* in spoken interaction beyond its literal meaning, with a focus on epistemicity, and to examine their distribution across various types of communicative interactions, adopting a sociolinguistic perspective. After providing the details of the dataset and the methodology adopted (Section 2.2), we discuss the attested discourse functions of *capire*, highlighting the emergence of dedicated constructions. We will start by interactional functions, such as backchannel and attention-getting (Section 2.3.2) and then move to functions connected to the epistemicity domain, such as hedging, argumentation, and mirativity (Section 2.3.3). In Section 2.4 we will provide a unitary account of the non-lexical uses of *capire*, highlighting their close connection to the symmetric vs. asymmetric relationship existing between SAP, the speech situation and the interaction goals. Some conclusions follow in Section 2.5.

2.2 Methodology

The data for this study were drawn from the KIParla corpus (Mauri et al. 2019), which is a recently built resource for the study of spoken Italian.

The corpus consists of 4 modules (KIP, ParlaTO, and KIPasti) and contains 2,326,171 tokens. One of the main characteristics of the resource is its incremental modularity, in that it is made up of single modules that have an internal structure and can be added over time. For this paper, we focused on two modules (KIP and ParlaTO, 1,125,996 tokens) because the others had not been released when we started our study.

The KIP module contains data collected between 2016 and 2019 (121 interactions, 69:23:08 hours of recording) in Bologna and Turin. It is domain-specific, in

that it includes different types of interactions within the academic setting, involving university professors and students, that is to say, speakers with higher educational achievements. It was designed to portray register variation and includes lessons, office hours and exams, and interactions involving only students, such as semi-structured interviews and free conversations.

ParlaTO module is a collection of semi-structured interviews (67 interactions, 48:51:14 hours of recording) recorded in Turin between 2018 and 2020. The interactions involve speakers belonging to different age ranges (from 16 to over 85 years old) and with diverse educational achievements (from elementary school diploma to PhD).

All the recordings included in the KIParla corpus have been transcribed adopting a simplified version of the Jefferson (2004) conventions used in conversational analysis. The symbols employed in the examples are listed at the end of the paper.

The two selected modules thus contain five kinds of interaction (i.e. free conversations, semi-structured interviews, office hours, lessons and exams) and they allowed us to investigate if the behavior of *capire* changes in different communicative settings. We decided to classify the interactions according to their formality (formal vs. informal), selecting as a determining parameter the kind of relation between the speakers: if the relation is symmetric, then the interaction is considered to be informal (free conversations and semi-structured interviews, 786,244 tokens); if the relation is asymmetric, then the interaction is classified as formal (office hours, lessons, exams, 339,752 tokens).

We extracted from the corpus all the inflected occurrences of *capire* and we manually coded them according to a series of linguistic parameter. First of all, we considered if the verb was employed with or without an additional discourse function. We also took into account some morphological features of the verb (i.e. tense, mood, person), its position in the utterance and the co-occurrence with relevant discourse markers or interjections.

All the selected parameters and their values are listed below.

- (1) Function:
 - a. No additional discourse function;
 - b. Discourse function;
- (2) Tense: Present, past, future, none;
- (3) Mood: conditional, gerund, imperative, indicative, infinitive, participle, subjunctive
- (4) Person: 1st, 2nd, 3rd, impersonal, other (i.e. cases in which the verb does not have a person marker);
- (5) Position in the utterance: initial, final, internal, free-standing;
- (6) Co-occurrence with discourse markers or interjections: yes, no;
- (7) Age range of the speaker: under 30; 31–60, over 60;

- (8) Kind of interaction: free conversation, semi-structured interview, office hour, lesson, exam;
- (9) Formality of the interaction: formal, informal.

We extracted 1,534 total occurrences of the lemma *capire* and in the next section their distributions according to their linguistic and extra-linguistic characteristics will be discussed. Given the main aim of this paper, we will focus specifically on occurrences in which *capire* is employed with a discourse function.

2.3 Data analysis: the discourse functions of *capire*

This section presents a quantitative and qualitative analysis of the occurrences of *capire* in the corpus, with a focus on its discourse-pragmatic functions. We begin with a general overview of the distribution of *capire* across grammatical persons and functions (Section 2.3.1), in order to distinguish its lexical uses from those that serve discourse-related goals. We then turn to the analysis of specific discourse functions. Section 2.3.2 discusses functions related to interactional management, such as backchanneling, contrastive backchanneling, and attention-getting. Section 2.3.3 focuses on functions more closely connected to the epistemicity domain, including hedging, argumentation, and mirativity. Finally, Section 2.3.4 provides a summary of the findings, highlighting cross-functional patterns and the morphosyntactic strategies associated with each discourse use.

2.3.1 Preliminary remarks: *capire* beyond its lexical meaning

The main dataset consists of 1,534 occurrences; 636 of them are employed with a function going beyond lexical reference to comprehension. This means that 41% of the occurrences of *capire* are used to achieve discourse goals. As shown in Table 1, the greatest majority of these refer to SAP (1st and 2nd persons), are impersonal (as in example (2)) or consist of the simple past participle *capito* ('other' in the table), which derives from the ellipsis of the 2nd person auxiliary in the form *hai capito* ('you have understood'). On the contrary, 3rd person occurrences systematically correlate with lexical uses (97.5% of the occurrences, Table 1).

Table 1: Absolute and relative frequencies of the lemma *capire* in the corpus in relation to person agreement and function.

Person Function	1°	2°	3°	Impers.	Other	TOT.
No discourse function	300 (47.4%)	87 (58.0%)	199 (97.5%)	0 (0%)	312 (57.6%)	898 (58.5%)
Discourse function	333 (52.6%)	63 (42.0%)	5 (2.5%)	5 (100%)	230 (42.4%)	636 (41.5%)
TOT.	633	150	204	5	542	1,534

These data show strong evidence of the fact that reference to ongoing comprehension as experienced by the interactants, expressed by 1st and 2nd person uses of *capire*, plays a different role in conversation than reference to comprehension as such, as typically described for 3rd persons.² For this reason, in the remainder of this paper, we will focus on reference to ongoing comprehension, considering the 636 occurrences for which additional discourse functions were observed beyond to the lexical meaning of understanding.

The examination of the occurrences of *capire* for which some additional discourse function is observed led us to identify six goals, for which speakers explicitly mention ongoing mutual comprehension. Thus, adopting a bottom-up approach we annotated the discourse/pragmatic value of each occurrence whose meaning went beyond the mere lexical value of the verb *capire*. As will become clear, together with an expected high frequency of backchanneling, closer to the lexical value (47.8%), we identified also an unexpected diversity in the number of further functions performed by *capire*, as shown in Table 2.

Table 2: Discourse functions of *capire*.

Function	Frequency (absolute and relative)
Backchannel	304 (47.8%)
Attention-getting	163 (25.6%)
Argumentation	77 (12.1%)
Contrastive backchannel	49 (7.7%)
Mirativity	27 (4.2%)
Hedging	16 (2.5%)
TOT.	636

² A chi square test of independence was performed to examine the relationship between the presence of additional discourse functions and person agreement on *capire*. The results showed an extremely significant association between the variables. The chi square value is 167.31, $p < 0.00001$.

In Section 2.3.2 we will describe backchanneling, contrastive backchanneling, and attention-getting, which are closely connected to the management of the interaction, in that they mention mutual understanding as a tool to check for reciprocal attention and for the successful flow of communication, at least as their main function. Section 2.3.3 will be devoted to the discussion of functions that are instead closer to the epistemicity domain, such as hedging, argumentation, and mirativity. Section 2.3.4 will provide a summary, and a unified picture of the strategies attested to convey non-lexical functions of *capire*.

For each of the functions that will be discussed, we will provide at least one example from the corpus, and information regarding the morphosyntactic properties of the relevant constructions. Their distribution across different types of interactions will be discussed in Section 2.4.

2.3.2 Interactional functions

Section 2.3.2 focuses on the interactional uses of *capire*, that is, those functions in which explicit reference to understanding contributes to the management of the interaction. These include backchanneling (2.3.2.1), contrastive backchanneling (2.3.2.2), and attention-getting (2.3.2.3). Each of these functions relies on the activation of shared comprehension between speaker and hearer, but they differ in their communicative goals, pragmatic effects, and morphosyntactic realizations. The following sub-sections examine each of these uses in turn, providing examples and discussing their distribution.

2.3.2.1 Backchanneling

Capire is commonly used as a backchannel marker in communication. Backchannels are short contributions produced by the hearer during a conversation. These contributions are characterized, on one hand, by their brevity, limited to a few syllables, and on the other hand, by their function of not competing for the turn to speak; that is, a backchannel does not aim to take the speaking turn but rather to show attention and encourage the interlocutor to continue speaking (cf. Gardner, 2001).

The purposes of backchanneling include interaction management and functions related to the message being conveyed. Interaction management refers to maintaining a smooth and continuous conversational flow, for example, when a listener uses a response signal to indicate that they are actively listening to what is being said, i.e., that they are not distracted. The functions connected with the main message, on the other hand, concern resolving issues of comprehension and

intersubjectivity: a short signal can be used by the listener to indicate that they have not only heard but also understood what has been said (Allwood, Nivre and Alsén 1992).

Example (3) provides an instance of *ho capito*, lit. 'I have understood', employed to provide a backchannel:

(3) KIParla Corpus, TOD2001

- TO099: *e da quanto tempo ci vivi?*
 and from how.much time LOC live:2SG
 'And how long have you lived there?'
 TO082: *sono lì da:: marzo inizio marzo.*
 be.1SG there from March beginning March
 'I have been there since March, the beginning of March.'
 TO099: *mhmh. ho capito.*
 mhmh AUX:1SG understood
 'Mhmh. I see.'

In this context, the verb *capire* is used to indicate that the comprehension phase has been successfully completed or, alternatively, to confirm the active participation of the interlocutor in the communicative process. As a backchannel, *capire* serves to provide feedback on the successful comprehension of the message or to confirm the interlocutor's engagement in the communication process, and for this reason it is often accompanied by paraverbal signals such as *mhmh*, as in (3). As shown in Table 3, it is mainly associated to the 1st person, present perfect construction *ho capito* 'I have understood', also attested as *capito* with the ellipsis of the auxiliary, in isolation, i.e., not followed by any complement. Furthermore, backchanneling *capire* is typically associated with a positive polarity and frequently occupies the whole turn in a dialogue.

Table 3: Strategies attested with a backchannel function.

Strategy		Frequency (absolute and relative)
<i>Ho capito</i> 'I have understood'	[1 st person, PST]	237 (78.0%)
<i>Capito</i> 'Understood'	[past participle]	44 (14.5%)
<i>Capisco</i> 'I understand'	[1 st person, PRS]	13 (4.3%)
<i>Non ho capito</i> 'I have not understood'	[1 st person, NEG, PST]	8 (2.6%)
<i>Ho capito bene</i> 'I have understood correctly'	[1 st person, PST]	1 (0.3%)
<i>Ho capito che</i> 'I have understood that'	[1 st person, PST]	1 (0.3%)
TOT.		304

2.3.2.2 Contrastive backchanneling

In some cases, *capire* is used not only to signal attentive listening and understanding, but also to prepare the ground for the expression of disagreement or correction. These uses often begin with a recognizably backchannel-like construction, such as *ho capito*, and are then followed by a contrastive element (typically *ma* ‘but’ or *però* ‘however’), which introduces a divergent stance. While such uses may appear to differ from the classic definition of backchannels as short, non-turn-seizing contributions, they still retain a key interactional property of backchanneling: the display of affiliation and alignment with the speaker’s contribution. We therefore adopt the term *contrastive backchannel* to capture this hybrid function. The initial *capire*-based move continues to serve an affiliative, face-sensitive role by acknowledging the interlocutor’s message before the speaker transitions into a potentially face-threatening act. As such, these constructions exemplify a strategic use of backchannel forms within a broader turn, combining interactional alignment with counter-argumentative dissociation, as in (4):

(4) KIParla Corpus, BOA1018

- BO085: *non mi hanno detto [che potevo farlo al*
 NEG 1SG.OBL AUX:3PL said that can:IMPF:1SG do:it to.DEF
[terzo anno]
 third year
 ‘They didn’t tell me I could do it during my third year’
- BO082: *sì. [ho capito] ma eh no allora cioè,*
 yes AUX:1SG understood but eh no so I.mean
lei fa parecchia confusione
 she do:3SG much confusion
 ‘Yes. **I see but** eh no well, I mean, you are mixing things up’

The speaker’s goal here is mainly to introduce a dissent rather than to provide feedback on the communication flow. Successful comprehension is conveyed as a preliminary step before presenting an objection, functioning as a positive politeness strategy that reinforces the interlocutor’s need to feel appreciated and understood, ultimately softening the blow (Brown and Levinson, 1987). Despite demonstrating understanding, the speaker does not agree. As Brown and Levinson (1987) argue, positive politeness strategies aim to mitigate potential offense by emphasizing friendliness – for instance, by juxtaposing criticism with compliments or, as in this case, by ensuring the interlocutor feels understood just before expressing disagreement. As

shown in Table 4, contrastive backchanneling is mainly associated to the 1st person, present perfect construction *ho capito* ‘I have understood’, followed by *ma* or *però* ‘but’ in 33 out of 49 cases. Despite being mainly positive in polarity, the construction is frequently followed by a counterargument.

Table 4: Strategies attested with a contrastive backchannel function.

Strategy		Frequency (absolute and relative)
<i>Ho capito</i> ‘I have understood’	[1 st person, PST]	42 (85.8%)
<i>Capito</i> ‘Understood’	[past participle]	5 (10.2%)
<i>Capisco</i> ‘I understand’	[1 st person, PRS]	1 (2.0%)
<i>Non hai capito</i> ‘You have not understood’	[2 nd person, PST]	1 (2.0%)
TOT.		49

2.3.2.3 Attention-Getting

An important element of effective communication is the ability to maintain the listener’s attention, keeping the channel open (Erman 2001; Lo Baido 2024). Speakers use attention-getting moves when they believe they are not being listened to or when they feel the need to emphasize a part of the utterance to ensure correct understanding of the message, in search of joint attentional focus (Brehan 2010; Carlier and De Mulder 2010). These moves can be physical, such as touching someone’s arm or waving a hand in front of the listener’s eyes, or linguistic, which are less threatening to the listener’s face than the former (Romero Trillo 1997). The verbalization of ongoing understanding can have the goal of ensuring and verifying the engagement of the listener (Lo Baido 2024).

In the attention-getting function, the verb *capire* is used to keep the interlocutor involved in the conversation, ensuring that the comprehension process is occurring correctly. This is often achieved through the use of an interrogative form, as in the question *hai capito?* ‘have you understood?’. This inquiry serves to check the flow of comprehension and to confirm that the listener is following the conversation, thus going beyond the lexical meaning of *capire* and acquiring a purely interactional function, namely to keep the addressee’s involvement.

Example (5) shows the use of *capito?* (lit. ‘understood?’) to ask for confirmation not on the actual content, or at least not only on that, but mainly on the interlocutor’s mental presence.

(5) KIParla Corpus, BOD2014

BO113: *son sempre quei metodi un po' che devi*
be:3PL always those methods INDEF little that must:2SG
trovare qualcuno: che poi lavori sotto di
find somebody that then work:SUBJ.3SG under of
te. ca[pito]?

you understood
'It is always about those methods in which you have to find somebody
working under you. **You see?**'

BO115: [*mh*].
'Mh.'

By questioning the effective functioning of the comprehension flow, speakers trigger some active response by the interlocutors, who are thus led to engage in the conversation. This is why the interrogative form is characteristic of attention-getting function. As shown in Table 5, the interrogative past participle *capito?*, deriving from the 2nd person past perfect *hai capito?* 'have you understood?', is the most frequent strategy. We occasionally also find present forms, but always inflected for 2nd person, thus conveying an appeal to the interlocutor. Attention-getting *capire* is always attested with a positive polarity, in utterance-final position, and is frequently followed by a backchannel marker such as *mh*, as in (5).

Table 5: Strategies attested with an attention-getting function.

Strategy		Frequency (absolute and relative)
<i>Capito?</i> 'Understood?'	[past participle, INT]	123 (75.5%)
<i>Hai capito?</i> 'Have you understood?'	[2 nd person, PST, INT]	19 (11.7%)
<i>Capisci?</i> 'Do you understand?'	[2 nd person SG, PRS, INT]	14 (8.6%)
<i>Capite?</i> 'Do you understand'	[2 nd person PL, PRS, INT]	7 (4.3%)
TOT.		163

2.3.3 Functions connected to the epistemicity domain

This section turns to a group of uses in which *capire* serves not to manage the flow of interaction directly, but to position the speaker in relation to knowledge: its accessibility, reliability, and degree of surprise. We refer to this as the epistemicity domain, namely the speaker's orientation toward the epistemic status of

what is being said: whether it is tentative, inferential, widely shared, or unexpected. In these contexts, reference to comprehension becomes a metadiscursive tool for expressing uncertainty, invoking shared understanding as evidential support, or dramatizing surprise in the face of new or counter-expectational information.

In these cases, *capire* no longer points to comprehension as an internal cognitive state, nor as a display of attention, but becomes a pragmatic resource through which speakers shape how their utterances are interpreted in terms of evidence, commitment, or emotional alignment. This shift is particularly relevant in spoken interaction, where epistemic stances are constantly negotiated in real time, and where reference to understanding can serve as a hedge, a warrant, or even a reaction.

The uses of *capire* examined in this section contribute to the dynamic construction of epistemic asymmetries and intersubjective alignment. The three discourse functions that we identified, i.e., hedging, argumentation, and mirativity, are grouped together because they all mobilize the semantic domain of understanding to index epistemic meanings. Hedging constructions involve a downscaling of epistemic authority or a mitigation of illocutionary force, through expressions that frame understanding as incomplete, uncertain, or potentially erroneous. Argumentative uses appeal to shared inferential access or common ground between interlocutors, with *capire*-based expressions functioning as evidential anchors for asserting or reinforcing a claim. Finally, mirative constructions foreground the speaker's surprise, disbelief, or cognitive misalignment, presenting understanding as effortful or disrupted in the face of unexpected content.

In the sub-sections that follow, we examine how each of these functions is realized through morphosyntactically distinct constructions (often conventionalized and person-specific) and how these constructions contribute to the projection of stance and speaker alignment. In doing so, we situate *capire* within broader typologies of epistemic marking in interaction and explore its role as a grammatical and discursive resource in the real-time negotiation of knowledge.

2.3.3.1 Hedging

According to Fraser (2010), hedging is a strategy through which a speaker, using specific linguistic devices, can signal a lack of commitment both to the exact meaning of an expression and to the strength of the speech act being performed. In the first case, the use of expressions conveying approximation to the intended meaning (e.g. *sort of*, *like*, etc.) affects the truth condition of a proposition (propositional

hedging), while in the second case, the use of “shields”³ modulates the degree and type of the speaker’s commitment (speech act hedging). Hedging is quite common in spoken interaction and indicates a lower degree of commitment with respect to the precision or accuracy of what is being said. Hedging is often employed as a politeness strategy, to avoid presenting statements as absolute or definitive truths, minimizing face-threatening acts and mitigating imposition.

Reference to ongoing comprehension can be used as a hedging strategy, enabling speakers to convey uncertainty about their understanding or to mitigate their level of commitment to a statement. We find four types of constructions in which *capire* is used with this function, as shown in Table 6.

Table 6: Constructions attested with a hedging function.

Strategy		Frequency (absolute and relative)
<u>Hypothetical</u> construction	[1 st person]	7 (43.8%)
e.g. <i>se ho capito (bene)</i> ‘if I have understood (right)’		
<u>Evidential</u> construction	[1 st person]	5 (31.3%)
e.g. <i>da quello che ho capito</i> ‘from what I have understood’		
<u>Restrictive final</u> construction	[infinitive]	2 (12.5%)
e.g. <i>solo per capire</i> ‘just to understand’		
<u>Goal-oriented motion</u> construction	[infinitive]	2 (12.5%)
e.g. <i>va’ a capire</i> lit. ‘go to understand’		
TOT.		16

First of all, we find hypothetical constructions in both positive and negative polarity, such as [*se capire*_1st person (*bene*)] ‘if I/we understood it correctly’, as in example (6), or [*se NEG capire*_1st person (*male*)] ‘if I/we did not understand it wrong’. In these cases, the speaker expresses hesitation and doubt regarding the accuracy of their comprehension. Hedging is thus achieved by casting doubt on the success of the understanding process, which does not necessarily need to be ongoing but may also refer to some previous communication that the speaker might have misunderstood. By employing hypothetical constructions, speakers communicate their awareness of potential misinterpretations or inaccuracies in their understanding, thereby expressing some degree of skepticism.

³ According to Caffi’s (1999) definition, “shields” are linguistic devices that allow speakers to distance themselves from the propositional content of their utterances, effectively shifting responsibility or commitment away from themselves.

(6) KIParla Corpus, PTA017

TOR006: *quindi* *cioè* *mh=* *diciamo* *che* *a* *te* *piace:* *vivere*
 so I.mean mh let's.say that to you like:3SG live
un po' se ho capito bene: eh in
 INDEF little if AUX.1SG understood well eh in
mezzo al verde diciamo cioè (.) dove ci
 middle to.DEF green let's.say I.mean where LOC
sia la natura.
 be.SUBJ:3SG DEF nature
 'So I mean mh we could say that you like living a bit **if I understand correctly** eh in the open, let's say. I mean where there's nature.'

We also observe a hedging function in the use of evidential constructions, such as [*da quello che capire*_1st person] 'from what I/we understood', in which the speaker's understanding is presented as the sole source and evidence for their argument, as in example (7). Restricting the foundations of their commitment to a previous inferential process of understanding – thus excluding additional external, objective sources in support – results in weakening the speaker's certainty about the validity of they are uttering.

(7) KIParla Corpus, TOC1003

TO033: *allora le cose sono queste, (.) cioè se::: cioè*
 so DEF things are these I.mean if I.mean
da quello che ho capito era
from that which AUX.1SG understood be.IMPF:3SG
proprio un ultimatum entro lunedì, in cui lei
 really INDEF ultimatum by Monday in which she
doveva decidere sì se impegnarsi con
 must:IMPF:3SG decide yes whether commit:REFL with
'sta roba
 this stuff
 'so, this is how things are, I mean, if, I mean, **from what I understood**, there was really an ultimatum by Monday, where she had to decide yes, whether to commit to this thing'

Restrictive final constructions, such as [*solo/giusto per capire*] 'only/just to understand', constitute another type of construction through which reference to comprehension is aimed at hedging. In such cases, the speaker presents the very process of understanding as the speaker's sole aim, as opposed to any subsequent actions or implications, thus minimizing the potential face-threatening component of their

act. In example (8) we observe this strategy employed by a professor during an exam, minimizing the face-threatening potential of interrupting the student in the middle of a turn, as revealed by the overlaps.

(8) KIParla Corpus, TOC1007

TO023: *infatti bisogna [dire che mh,]*
indeed it.needs say that mh
'Indeed, it must be said that mh'

TO024: *[posso in]terromper[la] solo per capire?*
may:1SG interrupt:it just to understand
Can I interrupt you **just to understand?**

TO023: *[sì.]*
'Yes.'

TO024: *e::h= m:h diritto arcaico (.) allora, e::h= il= periodo*
eh mh law arcaic so eh DEF period
diciamo imperiale classico, quando inizia
let's.say imperial classic when begin:3SG
'Uh, mh, archaic law. So, uh, the, uh, let's say classical imperial period,
when does it start?'

Finally, we found two occurrences of the goal-oriented motion construction [*va' a capire*], lit. 'go to understand', employed with the meaning of 'who knows, go figure', as in examples (1) and (9). In these cases, the understanding process is presented as something that is yet to begin and is highly uncertain, thus conveying the speaker's doubtful epistemic stance. In example (9) it reinforces the expression *chissà* 'who knows', uttered by the interlocutor.

(9) KIParla Corpus, PTD006

TOR004: *[chissà che] cacchio ha visto,*
who.knows that heck AUX.3SG seen
'Who knows what the heck (s)he saw'

TOI055: *e:h v- va a capire*
eh go.IMP.2SG to understand
'Uh, **good luck figuring it out.**'

The frequencies of the different strategies employed to express a hedging function are shown in Table 6.⁴ Since this function is only expressed through constructions

⁴ We reported in square brackets the one characteristic that was shared among all the occurrences.

that are conventionalized to some extent, in the table we have included the constructions rather than the individual forms.

2.3.3.2 Argumentative

Reference to ongoing comprehension may serve to support the speaker's argumentation, by emphasizing that the evidence lies within the common ground shared by speaker and addressee (cf. Clark 1997), indicating that both parties have inferential access to some common knowledge. Making an overt appeal to shared understanding between speaker and addressee is thus employed as a strategy to reinforce the credibility of the speaker's statement.

If we consider example (10), we observe that *per capirci* (lit. 'to understand each other') underlines that what is being said must be processed as evidence in support of the speaker's argument, and this evidence lies in the common ground. The best English translation for *per capirci* in this context is indeed 'you know what I mean'.

(10) KIParla Corpus, BOD1010

BO103: *coltrane cerca dei bassisti, con un*
 Coltrane look.for:3SG INDEF bass-players with INDEF
suono grande, pieno e profondo non gli serve
 sound big full and deep NEG 3SG.OBL serve:3SG
scott lafaro, per capirci. ma neanche paul
 Scott Lafaro to understand:us but not.even Paul
chambers
 Chambers
 'Coltrane looks for bass players with a great, full and deep sound.
 He doesn't need like Scott Lafaro, **you know what I mean**
 But not even Paul Chambers.'

'Coltrane looks for bass players with great, full and deep sound' is the speaker's position and 'Coltrane does not need Scott Lafaro' is added as an argument provided in support, chosen from the common ground. The addressee thus shares enough common ground with the speaker to process this information as further evidence for their position. The strategy exemplified in (10) shows an instance of a conventionalized final construction, that depicts mutual understanding as the goal of the argument just added, thus explicitly stating that it should be sufficiently accessible for both interlocutors to constitute shared evidence.

As shown in Table 7, the final construction *per capirci* is not the most frequent strategy based on *capire* attested to support argumentation. The past participle *capito* ‘understood’ (also attested in its truncated form *capi*), both in declarative and interrogative forms, indeed constitutes 62% of the argumentative uses of *capire* and is employed as a discourse marker. In example (11) the speaker’s position is that ‘Southern culture is more macho’ and further evidence is introduced by *capi*, which relies on shared knowledge and can be translated as ‘you know’ in this context. It is frequently used at the beginning or in the middle of an utterance, and the argument is normally presented as an example of some general statement.

- (11) KIParla Corpus, BOA3007
- BO072: *una cosa che mi dà fastidio del*
INDEF thing that 1SG.OBL give:3SG annoyance of:DEF
dialetto lombardo del dialetto lombardo è che
dialect Lombard of:DEF dialect Lombard is that
dite sempre
say:2PL always
‘One thing that annoys me about Lombard, the Lombard dialect, is
that you always say “figa” (lit. pussy)’
- BO071: *perché vi dà fastidio?*
why 2PL.OBL give:3SG annoyance
‘Why does it bother you?’
[. . .]
- BO072: *e::h la cultura meridionale è più machista*
eh DEF culture southern is more chauvinist
capi’ si dice minchia
under[stood] IMPERS say:3SG dick
‘uh, Southern culture is more chauvinistic, **you know**, we say
“minchia” (lit. dick)’

Table 7: Strategies attested with an argumentative function.

Strategy	Frequency (absolute and relative)
<i>Capito</i> ‘Understood’	[past participle] 48 (62.3%)
<u>Reciprocal final</u> construction e.g. <i>per capirci</i> ‘to understand each other’	[infinitive] 11 (14.3%)
<i>Hai capito (che)</i> ‘You have understood’	[2 nd person, PST] 6 (7.8%)
<u>Impersonal</u> construction e.g. <i>si capisce</i> ‘one understands’	[impersonal, PRS] 5 (6.5%)

Table 7 (continued)

Strategy		Frequency (absolute and relative)
<i>Capisci (che)</i> ‘You understand (that)’	[2 nd person, PRS]	5 (6.5%)
<i>L’avrete già capito</i> ‘you’ll have already understood’	[2 nd person, FUT]	2 (2.6%)
TOT.		77

We also find 2nd person forms, like *capisci* ‘you understand’, *hai capito* ‘you have understood’ and *l’avrete già capito* ‘you’ll have already understood’, to directly refer to the hearer’s understanding as evidence supporting the argumentation. In 5 out of 77 occurrences, we observe the use of the impersonal construction *si capisce* ‘one understands’, which demotes the speech act participants from the scene and indicates that comprehension is widely achieved by anybody. Shared understanding, beyond a specific SAP, is referred to as the inferential source of evidence for what is being said, highlighting the speaker’s argument as being obvious (cf. enimitive, Panov 2020) and requiring no further elaboration. *Si capisce* in these cases can be translated as ‘you know’.

(12) KIParla Corpus, PTB002

TOI017: *d’ inverno era triste andare a lavorare*
of winter be.IMP.F:3SG sad go to work
si capisce e poi mi venne
IMPERS understand:3SG and then 1SG.OBL come:PST:3SG
in mente: compro la macchina
in mind buy DEF car
‘In winter, it was sad to go to work, **you know**
And then it came to my mind
I will buy a car.’

In all these cases, speakers not only present their argument but also signal to the listener that their statement is backed by shared evidence.

2.3.3.3 Mirativity

The term mirativity refers to the “grammatical marking of unexpected information” (DeLancey 1997), or in other words, to the “unprepared mind of the speaker,

unexpected information, and the consequent surprise” (Aikhenvald 2004:209). Mirativity markers can also convey nuances of discovery, sudden revelation or realization, counter-expectation, and novelty for SAP. Explicit reference to ongoing comprehension can be aimed at expressing the speaker’s surprise or incredulity, particularly in reaction to unexpected information. The content being expressed is indeed fictitiously presented as being so unforeseen that it may cause comprehension issues. Let us consider example (13):

(13) KIParla Corpus, TOD2014

- TO071: *e quindi è rimasta vuota fammi capi'*
 and so AUX.3SG remained empty **let:me under(stand)**
occupa[ta: per vent' anni da due pers]one,
 occupied for twenty years by two persons
 ‘And so it has been empty, **let me understand**, occupied for twenty years by two people?’
- TO060: *[sì adesso è rimasta vuot(o)].*
 yes now AUX.3SG remained empty
 ‘Yes, not it is empty.’

The causative construction *fammi capire* (lit. ‘let me understand’) is conventionalized for the expression of some surprise, as if the speaker could not fully comprehend an unexpected situation and asks the interlocutor to make them understand. Another example can be found in (14), where two constructions involving *capire* are used to express the speaker’s astonishment for the series of absurd events taking place in a tv series. First, the construction *non puoi capire* (lit. ‘you cannot understand’) conveys the surprise for the fact that two ‘cousins, siblings. . .’ slept together: the speaker feels this as absurd and conveys her reaction by predicating the impossibility (*non puoi* ‘you cannot’) for the listener to understand such unlikely events. Interestingly, both *fammi capire* ‘let me understand’ in (13) and *non puoi capire* ‘you cannot understand’ in (14) refer to the effort that a surprising and unexpected situation requires to be understood, both for the speaker and for the hearer.

Example (14) then continues with speaker TO089 providing more details on what will happen in the last episode, which is felt as unbelievable: the rhetorical, emphatic question *capisci?* ‘do you understand?’ is used as an appeal to the hearer’s capacity to understand the absurdity of the event.

(14) KIParla Corpus, TOA3012

- TO089: *perché ora john snow ha trombato*
 because now John Snow AUX.3SG slept
con daenerys
 with Daenerys
 ‘Because now Jon Snow slept with Daenerys’
- TO090: *[io non l’ ho mai] seguita, quindi mi*
 I NEG it AUX.1SG never followed so 1SG.OBL
dispiace proprio]
 regret:3SG really
 ‘I have never really followed it, so I am really sorry.’
- TO089: *[non puoi capire] sono cugini, fratelli,*
 NEG can:2SG understand be.1SG cousins brothers
non ho capito cosa sono]
 NEG AUX.1SG capito what be.3PL
 ‘You wouldn’t believe it (lit. you cannot understand) they’re like
 cousins, siblings. . . I don’t even know what they are!’
 [. . .]
- TO085: *sono fratelli?*
 be.3PL brothers
 ‘Are they siblings?’
- TO089: *no cugini. (.) no non lo so*
 no cousins no NEG it know:1SG
 ‘No, cousins. No, I don’t know.’
- TO085: *cugini? però dello stesso sangue*
 cousins however of:DEF same blood
 ‘Cousins?
 But still the same blood.’
- TO089: *e trombano nell’ ultimo episodio*
 and sleep.together:3PL in:DEF last episode
 ‘And they sleep together, in the last episode.’
- TO090: *eh se me spoileri già*
 eh if 1SG.OBL spoil.2SG already
 ‘Eh, if you are spoiling it already’
- TO089: *[cioè capi]sci?*
 I.mean understand:2SG
 ‘I mean, **come on!** (lit. do you understand?)’
- TO089: *e se mai la volessi*
 and if never it want:SUBJ:2SG
 ‘In case I ever wanted. . .’

TO090: *no più che altro john snow futuro re*
no more than other John Snow future king
del regno
of:DEF kingdom
'No, but the real thing is, John Snow is the future king of the realm.'

The mirative function is associated to a number of different strategies involving *capire*, as shown in Table 8. Firstly, it is characterized by the use of both first and second person forms, pointing to the fact that surprise causes understanding issues both for the speaker and the listener. Furthermore, it encompasses a range of tenses, including present, present perfect, and past participle forms. Additionally, the function exhibits both positive and negative polarity, and is often found in exclamative contexts with an emphatic intonational pattern.

Table 8: Strategies attested with a mirative function.

Strategy	Frequency (absolute and relative)
<i>Capito?! 'Understood?!'</i>	[past participle, EXCL] 7 (31.8%)
<i>Hai capito?! 'Have you understood?!'</i>	[2 nd person, PST, EXCL] 5 (22.7%)
<i>Causative</i> construction e.g. <i>fammi capire 'Let me understand'</i>	[2 nd and 1 st person] 4 (18.2%)
<i>Capisci?! 'Do you understand?'</i>	[2 nd person, PRS, EXCL] 3 (13.6%)
<i>Non ho capito 'I did not understand'</i>	[1 st person, NEG, PST] 1 (4.5%)
<i>Negative ability</i> construction <i>Non puoi capire 'you cannot understand'</i>	[2 nd person, NEG_ABILITY] 1 (4.5%)
<i>Ho capito 'I understood'</i>	[1 st person, PST] 1 (4.5%)
TOT.	22

2.3.4 A summary

Table 9 provides a summary of the strategies attested for the six functions identified in this study. Together with forms like the past participle *capito* ('understood'), and the 2nd person past form *hai capito* ('you have understood'), which are attested for several discourse functions (cf. also Lo Baido 2024), we find constructions that are specialized for a specific function, especially within the epistemicity domain. The exclamative form is furthermore typical of mirative contexts, while interrogative form is found in attention-getting uses.

The data discussed in Sections 2.3.2 and 2.3.3 show that interactional functions are more directly connected to SAP, since the three functions identified systematically correlate with 1st and 2nd person reference. In particular, we observe that backchannel functions (neutral and contrastive) are conveyed by *capire* mainly inflected for 1st person in the present or past perfect tense, as a consequence of a clearly speaker-*anchored* function. By speaker-*anchored* we mean that backchannel functions rely on the communication of the speaker's understanding of the exchange, i.e., whether the speaker is aligned with the addressee on the content being conveyed. On the other hand, attention-getting is clearly an addressee-*anchored* function, as shown by the systematic correlation to 2nd person forms, mainly attested in the elliptic, interrogative form *capito*. This function indeed involves questioning the addressee's understanding of what is being communicated.

Table 9: Strategies based on *capire* attested for the six discourse functions identified in Section 2.3.

	INTERACTIONAL FUNCTIONS			EPISTEMICITY-related FUNCTIONS		
	backchannel	contrastive backchannel	attention- getting	argum- entative	mirative	hedging
[1 st person, PST]	-----	-----			-----	
[1 st person, PRS]	-----	-----				
[past participle]	-----	-----	-----INT----	-----	-----EXCL---	
[2 nd person, PST]		-----NEG----	-----INT----	-----	-----EXCL---	
[2 nd person, PRS]			-----INT----	-----	-----EXCL---	
[2 nd person, FUT]				-----		
<i>Impersonal</i> construction				-----		
<i>Reciprocal final</i> construction				-----		
<i>Causative</i> construction					-----	
<i>Negative ability</i> construction					-----	
<i>Hypothetical</i> construction						-----

Table 9 (continued)

	INTERACTIONAL FUNCTIONS			EPISTEMICITY-related FUNCTIONS		
	backchannel	contrastive backchannel	attention- getting	argum- entative	mirative	hedging
<i>Evidential construction</i>						
<i>Restrictive final construction</i>						
<i>Goal-oriented motion construction</i>						

The distinction between speaker- vs. addressee-anchoring can also be observed in functions connected to the epistemicity domain, although it emerges in a less direct and systematic way. This is primarily due to the inherently intersubjective nature of epistemic expressions, that is, their dependence not only on the speaker's internal epistemic state, but also on the interlocutor's presumed access to, or alignment with, the knowledge being expressed. In contrast to interactional functions, which tend to be clearly anchored in one SAP (either the speaker *ho capito* or the addressee *capito?*), epistemicity-related functions often index a stance that is co-constructed between participants, rather than being attributable to a single epistemic source. Rather than simply stating what is known or understood, these functions project a relationship between knowledge and interactional roles, distributing epistemic authority across speaker and addressee.

Hedging, argumentation, and mirativity indeed involve a wider range of conventionalized constructions than backchanneling and attention-getting. Hedging shows a correlation with hypothetical (e.g., *se ho capito (bene)* 'if I understood it right', *se non ho capito male* 'if I didn't misunderstand') and evidential constructions (e.g., *da quello che ho capito* 'from what I understood') involving 1st person forms, which shed doubt on the speaker's comprehension and thereby mitigate the assertiveness of the utterance. Also the restrictive final construction *solo per capire* 'just to understand' is speaker-anchored, even though the verb form is in the infinitive, because in this construction it is the speaker's understanding that is framed as the only communicative goal. The goal-oriented motion construction *va' a capire* (lit. 'go to understand') is more complex: although derived from a 2nd person imperative form, thus formally referring to the addressee's understanding, it has become highly conventionalized and now typically conveys the speaker's distancing from the epistemic content, marking understanding as elusive or inaccessible.

Mirativity and argumentation share many strategies with the attention-getting function. Mirativity is mainly associated with 2nd person forms, but we also find 1st person uses and, more interestingly, the causative construction *fammi capire* ‘let me understand’, which simultaneously references both interlocutors: it indexes the speaker’s difficulty in processing new information while appealing to the addressee’s support in achieving comprehension. For argumentation, we find 2nd person forms (including elliptic past participles) and a reciprocal final construction (*per capirci* ‘to understand each other’), which explicitly foregrounds mutual understanding as the pragmatic goal. This contrasts with the restrictive final construction attested for hedging (*solo per capire*), which isolates the speaker’s understanding as the sole concern. Interestingly, among the strategies attested for argumentation, we also find the impersonal construction *si capisce*, which reinforces the speaker’s stance by framing comprehension as universally accessible, thus projecting the epistemic content as grounded in general shared knowledge.

Whereas hedging can be argued to be more straightforwardly speaker-*anchored*, since the comprehension being placed under negotiation is clearly that of the speaker, mirative and argumentative functions display a more fluid distribution of anchoring. In these cases, reference to understanding may be anchored in either the speaker or the addressee, or both, though there is often a preference for the latter, particularly in 2nd person and elliptical forms. It is actually plausible that mirative and argumentative uses of (*hai*) *capito* and *capisci* represent further developments of the strategies originally employed for attention-getting, which lose their interrogative illocutionary force and acquire either an exclamative or evidential interpretation.

If we consider also other morphosyntactic features, we observe that both present and present perfect tenses are attested, with only a minority of simple past forms. This pattern supports the interpretation that reference for SAP comprehension (1st and 2nd person) typically concerns *ongoing* or *just-completed* phases of the interaction, that is, the immediate processing and interpretation of discourse in real time.

2.4 Communicating understanding to manage interactional knowledge

The study of the Italian verb *capire* reveals a wide range of functions beyond its basic lexical meaning ‘to understand’ in spoken Italian, confirming that explicit reference to ongoing comprehension is likely to be aimed at more intersubjective

goals, closely connected to the management of the interaction and the communication of the speaker's stance. These functions do not occur equally in any type of interaction but vary according to the overall interaction goal, the relationship between speakers, and the formality of the setting. In this section, we aim to focus on the discourse functions of *capire* in different communicative contexts, shedding light on its frequency and function in various types of interactions. In 2.4.1 we will focus on how *capire*-based constructions are employed in different interaction types, while Section 2.4.2 examines how the overall interactional goal and the SAP relationship influence the emergence of specific discourse functions of *capire*.

2.4.1 Discourse functions of *capire* across different interaction types

First of all, let us consider the distribution of the different functions of *capire* in informal (i.e. free conversations and semi-structured interviews) and formal interactions (lessons, hoffice hours and exams), reported in Table 10.

Table 10: Discourse functions across registers.

	Informal interactions (786,244 tokens)	Formal interactions (339,752 tokens)
Argumentation	66 (12.5%)	11 (10.4%)
Attention getting	144 (27.2%)	19 (17.9%)
Backchannel	239 (45.1%)	65 (61.3%)
Contrastive backchannel	46 (8.7%)	3 (2.8%)
Hedging	10 (1.9%)	6 (5.7%)
Mirativity	25 (4.7%)	2 (1.9%)
TOT.	530	106

The first thing that can be noted is that the absolute values are by far higher in informal interactions. We can affirm that discourse functions are more frequent in informal interactions than in the formal ones,⁵ taking into account the normalized frequencies that are respectively 0.9 and 0.3.⁶

⁵ The chi square value is 18.715, the p value is 0.00217175 and thus the distribution is significant at $p < 0.01$.

⁶ (number of occurrences per register / number of tokens per register)*1000

What is more striking is that the distribution of the functions in the two registers is quite homogeneous. The most frequent discourse values with which *capire* is employed are *backchannel*, *attention-getting* and *argumentation* in both cases; there are minor differences in the frequencies of the less attested functions (whose percentages are always below 10%), i.e. *contrastive backchannel* (8.7% vs. 2.8%), *mirativity* (4.7% vs. 1.9%) and *hedging* (1.9% vs. 5.7%).

It is important to stress the fact that this homogeneity does not imply that uses of *capire* do not change in different contexts. In fact, some interesting observations can be made by disaggregating the registers and taking into account the values of *capire* in the five scrutinized communicative settings, as reported in Figure 1.

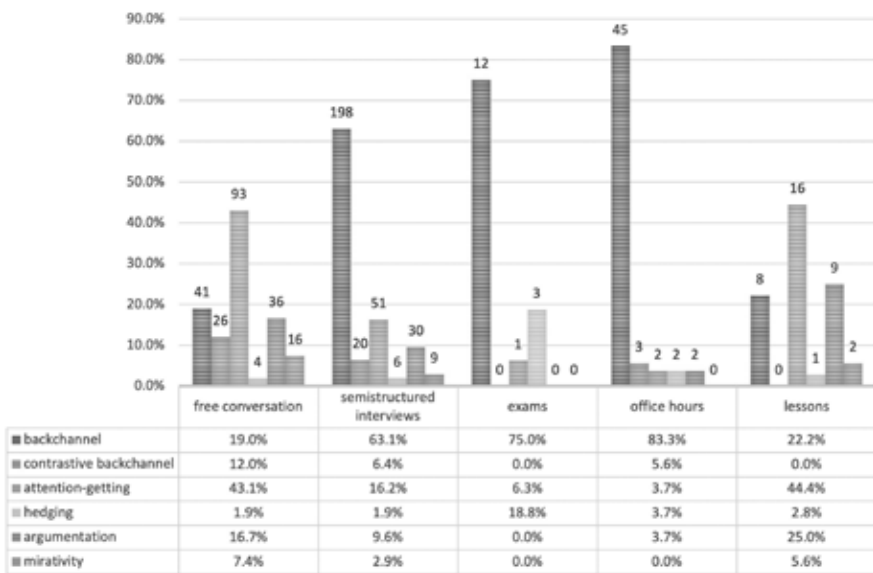


Figure 1: Relative frequencies of the interactional and epistemicity functions of *capire* across different types of interactions.

Figure 1 shows the relative frequencies of the discourse functions of *capire* across the five interaction types: including free conversations, semi-structured interviews, exams, office hours, and lessons. The figure highlights distinct patterns in the use of *capire* based on the nature and context of the interaction, suggesting that the functions of *capire* are closely tied to the interactional goals and the dynamics of each setting.

In *free conversation* attention-getting (43%) is the most prevalent function of *capire*, revealing the speakers' need to actively manage engagement and ensure mutual attentiveness. By using phrases like *capito?* ('understood?'), speakers explicitly

refer to ongoing comprehension to check the addressee's involvement and keep the interaction aligned. This frequent use reflects the conversational need to constantly monitor and secure the listener's focus, particularly in informal settings where the dialogue is fluid, topics easily change and participant roles are more symmetric. Backchanneling (19%) and argumentation (17%) have similar frequencies in free conversation. Backchannel is likely to support the interaction by providing real-time feedback and allows participants to signal their understanding without interrupting the speaker, thus maintaining the conversational flow. Argumentation, on the other hand, is employed to build or reinforce shared knowledge within the conversation. Through argumentative uses like *per capirci* ('you know what I mean'), speakers make comprehension explicit to make their points stronger or align their perspectives with the listener. This function is crucial in informal settings where the negotiation of ideas and viewpoints is common, and explicit references to understanding help ensure that all parties are on the same wavelength. For the same reasons, we find a significant frequency also of contrastive backchanneling (12%), where reference to ongoing comprehension is employed to manage disagreement or divergence in conversation. Free conversation is indeed the context in which contrastive backchanneling is more frequent because participants are free to express differences, and explicit reference to understanding serves as a polite preface to disagreement. Mirativity (7%) and hedging (2%) are less frequent.

If we consider *semi-structured interviews*, backchanneling (63%) is the dominant function, signaling active listening and ongoing comprehension. In the context of interviews, backchanneling with *capire* (e.g., *ho capito* 'I have understood') reassures the interviewee that their message is being received and understood, which is crucial for maintaining the structured exchange typical of interviews. Explicitly referring to understanding in this way helps sustain the interaction, allowing the conversation to progress smoothly by confirming comprehension at each step. Attention-getting (16%) is another important function of *capire* in interviews, where longer turns may require maintaining the listener's focus. In interviews, argumentative uses (10%) are likely to help establish common ground between the interviewer and interviewee. Contrastive backchanneling (6%), mirativity (3%), and hedging (2%) are less frequent, but still attested.

Moving now to formal contexts, let us start from *exams*: backchanneling (75%) is the predominant function. In this context, *capire* is often used by examiners or examinees to signal understanding and keep the interaction moving smoothly. The high occurrence of backchanneling reflects the formal, turn-taking nature of exams, where students are expected to listen attentively and respond appropriately. Hedging (19%) also plays a notable role in exams. This function allows examinees to express uncertainty or to cautiously frame their responses, which is common when they are unsure of an answer or wish to soften their statements.

For example, a student might use *se ho capito bene* ('if I understand correctly') to tentatively engage with a question, reflecting the high-stakes environment where precision and careful articulation of responses are valued. Hedging helps students navigate the pressure of exams by providing a way to acknowledge potential misunderstandings without committing fully to a particular interpretation. Attention-getting (6%) is less frequent in exams, probably due to their structured nature, where students are generally expected to maintain attention throughout. Argumentation, mirativity, and contrastive backchanneling are not present in exams, which is consistent with the formal and evaluative nature of this setting.

Taking into account *office hours*, we can see that backchanneling is much more frequent than the other functions, accounting for 83% of the occurrences. This high prevalence of backchanneling reflects the interactive nature of office hours, where students often use *capire* to signal active listening and comprehension to the professor without interrupting the flow of explanation. In a setting that focuses on personalized guidance and clarification, backchannel markers like *ho capito* ('I have understood') are crucial for maintaining a smooth dialogue and showing engagement with the ongoing discussion. The prominence of backchanneling can be attributed to the expectation in office hours that students continuously confirm their understanding as the professor provides explanations. Contrastive backchanneling (6%) is instead often uttered by professors, acknowledging understanding in order to advance some objections. Hedging, argumentation, and attention-getting functions are much less frequent in office hours compared to backchanneling. The relative scarcity of attention-getting uses (e.g., *capito?* 'understood?', 4%) can be due to the fact that students cannot challenge the professor's attention, given their asymmetric relation. Mirativity is not attested and argumentation is rare (4%), which aligns with the formal and respectful tone of office hours. In these settings, openly challenging the professor's ongoing comprehension (*capito?* 'did you understand?') and statements (*ho capito ma. . .* 'I understand but. . .') or expressing surprise (*fammi capire* 'let me understand') is less likely due to the power dynamics and consequent politeness reasons, since students are unlikely to threaten the professor's face. In office hours, the emphasis is placed more on listening and confirming comprehension rather than on negotiation or epistemic management, which are more prevalent in other formal contexts like exams or lessons.

If we consider *lessons*, we observe that the most frequent function is attention-getting (44%), reflecting the teacher's need to maintain students' focus and engagement. Teachers often use expressions like *capito?* ('understood?') to ensure that students are following along and to actively involve them in the learning process. This frequent use underscores the importance of monitoring comprehension in real time, which is critical in educational settings where understanding is the primary goal. Argumentation (25%) is also a prominent function in lessons. This suggests that teach-

ers frequently use *capire* to reinforce or clarify points, helping students connect new information with existing knowledge. Backchanneling (22%) in lessons is less frequent than in other types of interaction, but it is still present and reveals interactive feedback, even in a predominantly teacher-led environment. Mirativity (6%) is less frequent but still relevant in lessons. It allows teachers to express surprise or emphasize unexpected information, to highlight notable points during instruction. Contrastive backchanneling is absent in lessons, which aligns with the formal and hierarchical nature of this setting. Direct challenges or counterarguments are not typical in classroom discourse, where the focus is more on knowledge transmission than on negotiating or contesting ideas.

2.4.2 A closer look: interaction goal and SAP relation

Let us now take one step back and return to the functions of *capire* in order to explain why they are more (or less) frequent in particular kinds of interaction that share some characteristics that go beyond the distinction between formality and informality.

If we consider the types of interactions in which backchannel is attested, we observe that it is more frequent in contexts (i) which have the exchange of information as their main goal, (ii) are dialogical, and (iii) in which speakers have more fixed roles (i.e. semi-structured interviews, exams and office hours). Especially office hours and exams are interactions that can be classified as *transactional*, in that participants “in a sense suspend their individuality in order to act out the rights and obligations of relevant statuses” (Gumperz 1964:149). Considering our data, we can say that these are the cases in which speakers have a stronger need to signal the active process of listening and understanding.

Attention-getting and *argumentative* reference to comprehension are more frequent in free conversations and in lessons. Free conversations are spontaneous interactions within peer group involving students; there is symmetry among the speakers, and they act as individuals and not according to their role/status. For this reason, in this context, attention-getting is less face-threatening, in that speakers feel free to explicitly request the attention of the addressees. It is not surprising that these are the context in which also the argumentative value is more frequent; given that SAP are friends, classmates and/or flat mates, they can easily access shared knowledge for the sake of their argumentation.

It is interesting to note that these two functions are frequently attested even in a radically different kind of context, i.e. lessons. However, the presence of attention-getting *capire* can be easily explained considering the aim of this specific type of interaction, closely dependent on the actual attention that students pay to what is being taught, and also to the turn length. Lessons are indeed mainly monologic

and typically consists of long turns, which can lead more easily to a loss of attention. If we take into account the argumentative value, it is clear that lessons are inherently highly argumentative and prone to trigger the use of devices that can make the argumentation more solid.

The remaining functions are rarer, but it is still possible to make some remarks considering their context of use.

Contrastive backchannel is mainly employed in dialogical interactions, particularly those characterized by a symmetric relation between speakers, who engage in some argumentation. These are the types of interaction where a more informal register is used, as in free conversations and semi-structured interviews. This function is indeed not attested in lessons and exams. Example (4) is one of the three occurrences attested during office hours, where a more formal register is typically employed, and the speaker uttering *ho capito ma* is a professor. *Mirativity* shows a similar distribution: it is more commonly observed in dialogical contexts where the speakers share a symmetric relation, except for lessons, where it is likely used to catch the audience's attention.

Finally, the variety of constructions involving *capire* to *hedge* the speaker's commitment reflects the interlocutors' acknowledgment of the complexity and ambiguity inherent in the process of understanding, as well as the limitations of their own knowledge and the potential variability in interpretation. It is important to note that, despite the variety of strategies employed, occurrences of hedging are relatively infrequent across all types of interaction when compared to interactional functions such as backchanneling and attention-getting, as shown in Figure 1.

2.5 Conclusion

This study has provided an in-depth analysis of the verb *capire* in spoken Italian, with a particular focus on its non-lexical uses in interaction. Building on data from the KIParla corpus, we have shown that *capire*-based constructions go far beyond their literal semantic value of 'understanding' and fulfill a range of discourse-pragmatic functions. These include interactional uses such as backchanneling, contrastive backchanneling, and attention-getting, as well as epistemic uses such as hedging, argumentation, and mirativity.

While these functions differ in their surface realization and pragmatic goals, they share a core feature: the explicit marking of ongoing or assumed comprehension, which is deployed to manage not only the flow of communication but also the negotiation of knowledge and stance between interlocutors. In this sense, *capire* becomes a powerful epistemic and evidential resource, indexing the speaker's

degree of certainty, the inferred or shared nature of information, or their reaction to unexpected content.

The study has shown that *capire* is used to dynamically calibrate the epistemic relation between speaker and addressee. Hedging constructions foreground a reduced epistemic commitment, by signaling uncertainty or caution in the attribution of knowledge. Argumentative uses exploit the notion of mutual comprehension as an evidential anchor, grounding claims in what is assumed to be inferable or obvious to both participants. Mirative uses, in turn, dramatize comprehension as effortful or implausible, marking epistemic misalignment between the interlocutors. Through these functions, the speaker's stance toward knowledge is made observable and available for negotiation in real time.

Moreover, the study suggests that the domain of epistemicity cannot be fully understood without accounting for its intersubjective dimension: understanding is not just a mental state, but a socially constructed condition. The speaker's reference to their own or the addressee's comprehension serves as a metapragmatic comment on how information is being processed and whether the interlocutors' mental states are aligned, projecting expectations about mutual attentiveness and inferential accessibility. This aligns with recent approaches to epistemicity that emphasize the inherently dialogic and relational nature of epistemic management in discourse.

Specific aspects of the interaction, including the symmetry of the relationship between SAP, the presence of fixed roles, the aim of the interaction, and the level of dialogicity, have been shown to favor specific functions. In particular, reference to the comprehension process is more likely to emerge in conversations characterized by symmetric relations between SAP or when the speaker occupies a higher position of authority, such as a professor addressing students.

This study invites a rethinking of how mental verbs, particularly verbs of comprehension, function in interaction across languages. The Italian data show that *capire* has developed a range of conventionalized discourse uses that extend well beyond its core lexical meaning, functioning as an epistemic operator sensitive to person, polarity, mood, and sequential positioning. These observations raise important questions for cross-linguistic research: to what extent do other languages similarly recruit verbs of understanding to manage stance, signal evidential source, or negotiate epistemic asymmetries in real time? And how do such uses interact with language-specific morphosyntactic resources and pragmatic norms?

By documenting the interactional trajectories of *capire*, this paper lays the ground for future comparative research on the epistemic extensions of mental verbs, with particular attention to how culturally and interactionally embedded dynamics shape their discourse functions. By analyzing how a verb like *capire* is used in interaction, we gain insight not only into how speakers display understand-

ing, but into how understanding itself becomes a structured, strategic, and socially distributed achievement.

Acknowledgments

The research leading to these results has received funding from Project “DiverSIta-Diversity in spoken Italian”, prot. P2022RFR8T, CUP J53D23017320001, funded by EU in NextGenerationEU plan through the Italian “Bando Prin 2022 - D.D. 1409 del 14-09-2022, and from Project PNRR “PE5: CHANGES – Cultural Heritage Active Innovation for Next-Gen Sustainable Society”, Spoke 3: Digital libraries, archives and philology, WP5: Languages and their legacies in oral digital archives: synchronic interdisciplinary perspectives on multilingualism, language minorities, dialects and cultural contact in Italy.

Abbreviations

Interlinear glosses:

1	first person
2	second person
3	third person
AUX	auxiliary
DEF	definitive
FUT	future
IMP	imperative
IMPERS	impersonal
IMPF	imperfective
INDEF	indefinitive
INT	interrogative
LOC	locative
NEG	negation
OBL	oblique
PL	plural
PRS	present
PST	past
REFL	reflexive
SG	singular
SUBJ	subjunctive

Transcription conventions:

[word]	speech overlaps
wo:::rd	prolonged sound
wo-	interrupted word
WORD	syllables or words louder than surrounding speech
(wo)rd	uncertain syllables or words
(.)	micropause
,	slight rising intonation
?	sharp rising intonation
.	final falling intonation

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3 Hearsay in Italian talk-in-interaction

Abstract: In this chapter we explore hearsay as a subcategory of information source in Italian, focusing on its semantic properties and its contribution to epistemic stance-taking in talk-in-interaction. The notion of *evidential frame* is used to describe components of the acquisition of knowledge through hearsay such as the current speaker and experiencer of hearsay S_0 , the cited speaker S_i , the modality of the cited discourse (written vs. spoken) or the spatio-temporal circumstances. We ask which semantic components are explicitly encoded and how participants orient to them in interaction. The analysis is carried out on a collection of 126 hearsay constructions in dinner table conversations and on a subcollection of repair sequences, hypothesizing that reformulation in repair exposes semantic micro-contrasts that are particularly relevant to participants in the local context. In Italian, hearsay is primarily conveyed through verb-centered constructions, especially with *dire* ('to say'), which specify frame components in varying degrees of detail. In the collections, we often encounter explicit reference not only to S_i , but also to S_0 's involvement. In repair sequences, adding more details about S_i 's expertise or S_0 's direct access to the source discourse enhances the reliability of the hearsay source and supports claims of epistemic primacy, while persistent vagueness can be seen to reduce such claims. Our findings highlight the experiential nature of knowledge acquisition, including indirect sources such as hearsay, and challenge assumptions about the prevalently hedging function of this category, suggesting that hearsay tends to serve justificatory and boosting functions when expressed through semantically specific lexical constructions.

Keywords: evidentiality, information source, hearsay, Italian, repair, epistemic stance

3.1 Introduction

Hearsay is an evidential category by which speakers present a piece of information as originating in a discourse they have heard (or read). In the present paper, we discuss this category with reference to the relevant literature and investigate it in a set of dinner and lunch table conversations in Italian. We adopt a collection-based

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interactional approach to evidential meaning that focuses both on conceptual structure and on the contribution of evidential meaning to epistemic stance-taking, with special attention to its reformulation in repair sequences. Assuming that references to hearsay sources in discourse vary along several lines (for example, the author and type of discourse referred to or the moment and manner in which the speaker has accessed that discourse), we explore which parameters are particularly relevant in conversation and which pragmatic functions they fulfill. We will see that different modules of the investigation converge to suggest that the degree of specificity with which hearsay sources are encoded plays an important role in the strategic management of the co-participants' epistemic positioning.

More detailed reference to the author of the discourse and to the circumstances of the experience is associated with claims of epistemic primacy, while generic references to hearsay achieve the opposite effect. As to the functions of single parameters, explicit reference to the speaker, as well as details about their uptake and memory of others' discourse, are highly salient aspects of hearsay in the examined data. We will argue that this finding highlights the experiential nature of knowledge acquisition and the speaker's role in the hearsay frame.

In Italian, hearsay is mainly conveyed by constructions centered around verbs of saying, writing, thinking, perception, appearance, understanding, and reading. These constructions are sometimes combined with techniques of direct and indirect reported speech that include deictic shifting or prosodic mimesis and may stretch over larger units of discourse, relying not only on morpho-syntax, but also on textual relations to connect the hearsay source with the information in its scope. Often these constructions are not grammaticalized, nor lexicalized, but are "trivial" (Wiemer 2010:62) under the aspect of compositionality, i.e. have fully compositional meaning (e.g. *recita* 'it says', *si legge* 'you (can) read' and *sta scritto* 'it's written', cf. Miecznikowski 2009). Some verb-centered constructions are grammaticalized to a certain degree, especially *dice* (*che*), lit. 'says' (Calaresu 2004:39–42, Pietrandrea 2007:58, 67, Giacalone and Topadze 2007:27, Wiemer 2010:103), Sicilian *dicica* (Cruschina and Remberger 2008), and *a quanto pare* 'apparently' (Squartini 2008:932–33). The literature on Italian mentions one hearsay construction with a lexical core that is not a verb, i.e. *secondo X* 'according to X' (e.g. Pietrandrea 2007:58), whereas no hearsay adverbs have been described. Towards the grammatical end of the cline between discourse, lexicon and grammar, we find certain uses of the conditional forms of the modal verbs *dovere* 'must' and *potere* 'can' (*dovrebbe*, *potrebbe* according to Pietrandrea 2005:87–88, see however Rocci 2012 for a different analysis of *dovrebbe*) and, finally, extensions of moods and tenses, especially the conditional form *per se* (Squartini 2001, 2002; Wiemer 2010:78) and certain uses of the imperfect (Bazzanella 1990:450–452; Squartini 2001:308–314; Wiemer 2010:75–76).

The way we just presented the verbal resources to encode hearsay in Italian, including a vast array of formal means, is rooted in an understanding of this category as a conceptual and functional one, at the intersection of information source and reported speech. In the present study, this approach is applied more generally to the superordinate category of information source, which we consider here as a conceptual and functional category that is prominent within the larger domain of epistemicity (Boye 2012). A function to form approach is indeed necessary to raise and investigate the issue of how meaning related to information source is encoded and becomes relevant in interaction. We develop this functional orientation by making further theoretical assumptions. On the semantic level, drawing on the notion of *evidential frame* (Miecznikowski 2020), we will describe information source as an experience of knowledge acquisition relevant to the speaker's current utterance, which relates multiple components whose encoding is subject to variation in discourse. Note that in this paper, for convenience, we use the adjective *evidential* in a narrow sense with the meaning 'related to information source', while putting aside other potentially relevant meanings of this adjective and of the derived noun *evidentiality*.¹ On the pragmatic level, referring to the broader framework of interactional linguistics, we see information source as part of epistemic stance taking (Stivers, Mondada and Steensig 2011; Heritage 2012), an activity that depends on the sequential unfolding of talk.

Raising the question of the interactional relevance of semantic distinctions in the domain of hearsay implies a perspective that pays attention to contextualized meaning and *in situ* interpretations by participants. In this perspective, as anticipated at the beginning of this introduction, we ask two interrelated questions. First, we ask which semantic properties of hearsay frames tend to be encoded explicitly and in some detail, thereby becoming prominent in discourse, as opposed to having implicit and/or vague meaning. Second, we focus on sequences in which hearsay sources are reformulated as part of a repair and ask which semantic properties are concerned and what participants achieve pragmatically by modifying their encoding.

In the following sections, we first give a conceptual and functional definition of information source as an evidential frame (3.2.1) and an overview of its main pragmatic functions (3.2.2). Then we narrow down the scope to hearsay: we discuss its relation to reported speech (3.3.1, 3.3.2), reflect on the pragmatic functions that

¹ We take the noun *evidentiality* to mainly refer to a grammatical category. We remain agnostic about the question whether information source is central to evidentiality. Information source has quite clear-cut conceptual boundaries and is, in our view, cross-linguistically an important category at the pragmatic and interactional level, independently of its role in the grammaticalization of epistemic linguistic means.

are actualized in this subcategory of information source (3.3.3) and come back to our research questions (3.3.4). A survey of the main properties of talk-in-interaction in general and of repair sequences in particular is provided to ground our interactional approach (3.4). We move on to present the data and methodology of our empirical study on conversational Italian (3.5). The findings are discussed in two sections, addressing each of the research questions above. In a first step, we describe the formal and semantic properties of the hearsay strategies attested in the corpus (3.6). Subsequently, we present a collection of repair sequences and analyze several exemplary cases in depth, highlighting semantic contrasts and pragmatic effects related to epistemic stance-taking (3.7). Finally, we summarize and discuss the findings and sketch future perspectives (3.8).

3.2 The category of information source

3.2.1 Conceptual, deictic and m-performative features

In this study, we define the category of information source by its conceptual core and its specific relation to the speaker's on-going action. Following a proposal by Miecznikowski (2018, 2020), we define the category's conceptual core as referring to (a) an experience (b) made in the present or the past (c) by the speaker or a set of people that includes him/her, (d) by which the experiencer acquires/acquired a piece of information (e) that information being a proposition *p* that can be said to be true or false (see Boye 2012:183–275, who underlines the importance of propositional scope as a criterion to define evidential operators). This relational structure can be conveniently described as a *configuration* (Miecznikowski 2018:80) or *frame* (Fillmore 2006; Bazzanella 2014:69–72; Miecznikowski 2020:45–47).² We propose a visual representation in Figure 1. Further entities and features can be added to the basic evidential frame to specify the type of experience, deictic properties as well as possible constraints on the nature of *p*. We moreover posit that in order for such an experience to count as an information source, (f) the truth of the proposition *p* resulting from it must be at stake in the speaker's action.

² The concept of *frame* is typically used to describe processes with several participants and is situated at the interface between language-specific semantics and more general cognitive schematizations rooted in experience. It is therefore well-suited to model the category of information source intended as a process of knowledge acquisition.

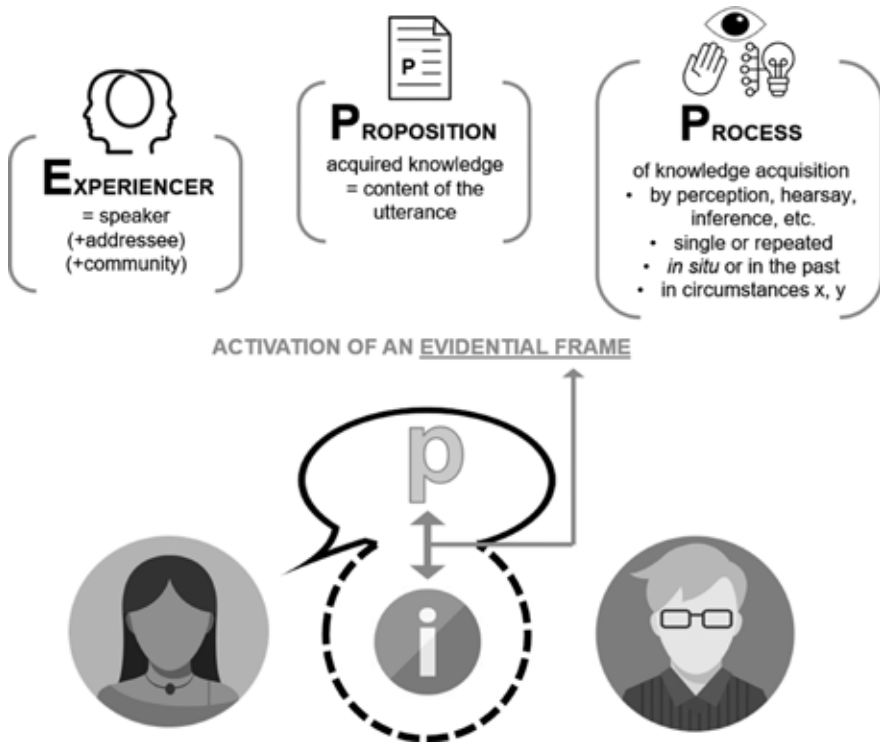


Figure 1: Evidential frame. The diagram pictures a speaker, a hearer, and a discourse with a propositional content p related to an information source i , analyzed in further detail in the upper part of the diagram.

Condition (f) is a somewhat broader formulation of Miecznikowski's (2018:79–82, 2020:46) criterion according to which the speaker must perform an assertive speech act and express some degree of commitment to p . It recalls Anderson's (1986:274) criterion according to which "[e]videntials are not themselves the main predication of the clause, but are rather a specification added to a factual claim ABOUT SOMETHING ELSE" (uppercase in the original), where "something else" corresponds to our proposition p . We however prefer not speaking of "factual claims" alone, but broaden the scope to a variety of acts in which the truth of p is at stake, including acts with very weak assertive force. The criterion excludes reports of perception, speech and thought that fulfill the conditions a-e, but in which the speaker's assertive commitment regards the entire report, i.e. the fact that such acts and experiences occurred, rather than merely the truth of the content perceived, told or thought of. In languages such as Italian, or English, in which evidential constructions include full verbs taking scope over syntactically embedded clauses, criterion

(f) requires the analyst to evaluate the pragmatic prominence of both the main and the embedded clause. In the following invented examples, according to this criterion, the underlined expressions in (i) specify the speaker's source of information for *p*, while their counterparts in (ii) do not:

- (1) (i) [*The surface is scratched*]_{*p*}, *I'm afraid – I saw [it]_{*p*} quite clearly when I took a close look.*
- (ii) *It was her who first noticed [that the surface was scratched]_{*p*}. At a closer look I saw [it]_{*p*} too, and got worried: had I done the damage?*
- (2) (i) [*He's a liar and a thief*]_{*p*}, *Everybody says [that]_{*p*}.*
- (ii) *I often hear them fight. She says [that he's a liar and a thief]_{*p*}, he replies that their marriage has been a huge mistake, and so on and so forth.*

In the (i) cases, the truth of *p* is at stake and could be challenged by an interlocutor in an adjacent turn; the underlined expressions are interpreted in that context and, accordingly, acquire a particular pragmatic relevance. On the other hand, the reports in (ii) are part of narratives and the underlined expressions are prominent components of the propositional content, whereas the embedded *p* is, respectively, presupposed (1) or its truth is currently irrelevant (2). Therefore the underlined expressions, even if formally and semantically similar to those in the (i) examples, have a quite different pragmatic status.

Criterion (f) underlines that the category of information source is both deictic and performative (“a mental act of evaluation of a state of affairs” which is “performed here and now”, Nuyts 2001:40), or rather *m-performative* (Faller 2002:211), a term whose *m*-prefix is reminiscent of Nuyts' characterization of the act in question as “mental”.³ In both works just cited, the notion of *performative* is opposed to *descriptive* and highlights the fact that epistemic and evidential markers contribute to the formation of the speaker's on-going action. *M-performativity* is central in grammaticalized evidentiality and co-varies also with the form and meaning of constructions with a lexical core, suggesting its importance in processes of grammaticalization (Miecznikowski 2017:354–355).

³ “In order to distinguish Nuyts' notion of performative from the standard speech act theoretic notion, I will call it *m-performative* based on his characterization of it being a mental act of evaluation.” (Faller 2002:211–212).

3.2.2 Pragmatic and interactional functions

The way an expression of information source may contribute to action formation varies a great deal,⁴ but based on the existing literature it is possible to identify its most recurrent pragmatic functions: hedging or boosting illocutionary force, claiming or disclaiming epistemic primacy, distancing.

The set of functions that overall has been discussed most in linguistics and the neighbouring fields regards the assessment of the certainty of *p* based on an assessment of the source's reliability, with effects of epistemic modalization and, as a consequence, either boosting or hedging of the act's assertive force. This function motivates the use of the term *evidence* (cf. Willett's 1988:57 well-known "types of evidence") and of its derivations to refer to information sources, but also the term of *epistemic justification* introduced more recently (see Boye 2012). It is underlined by speech act theory, e.g. Searle and Vanderveken (1985) and Sbisà (2014:480), who consider sources of information necessary preparatory conditions warranting assertions, or Faller (2002:25), who maintains that they modulate an act's sincerity conditions. It is also central to the much discussed issue of the relation between evidentiality and epistemic modality (see, again, Boye 2012 as well as the recent literature review by Robin 2024) and has recently been revisited in an argumentative perspective, reconstructing expressions of information source as arguments from a reliable procedure of knowledge acquisition (Miecznikowski 2018, 2020; Battaglia and Miecznikowski in press).

A second set of functions has to do with the categorization of sources in social terms. Experiences of knowledge acquisition are embedded in social practices and participants' references to them imply self- and other-categorizations that are linked to social and professional roles, rights and obligations (Stivers, Mondada and Steensig 2011; also see Geddo, in preparation, for a detailed discussion). As underscored by conversation analytical work, participants treat these aspects as pre-existing categories that become relevant in specific interactions (*epistemic status*, Heritage 2012, *territories of information*, Kamio 1997), but also negotiate and adapt them during interactions, paying special attention to the mutual positioning of different co-participants (*epistemic stance*). Taking an epistemic stance with regard to a specific information can be viewed as claiming or disclaiming epistemic *primacy*, i.e. "relative rights to know" (Stivers, Mondada and Steensig 2011:13) or as taking a

4 We use the term *action formation* to refer to the way "the resources of the language, the body, the environment of the interaction, and position *in* the interaction [are] fashioned into conformations designed to be, and to be recognized by recipients as, particular actions – actions like requesting, inviting, granting, complaining, agreeing, telling, noticing, rejecting, and so on" (Schegloff 2007:xiv).

position – and assigning one to the interlocutor – on a +/-K gradient of knowledge claims (Heritage 2012:7; Heritage and Raymond 2005; Sandman and Grzech 2022).

A third set of pragmatic functions is related to the deictic aspects of information source and regards the management of the speaker's personal involvement. Referring to an information source entails evoking a state of affairs and cognizers that are different from the current speech event. That is why information source is conceptualized as a device of mediation in the French tradition (*médiativité*, see Guentchéva 2011; Dendale and Miecznikowski 2023) and evidential marking can have a distancing effect. Distancing, in turn, can be a means for speakers, to *shield* themselves from their own current verbal action and reduce their responsibility for it.⁵

Not only semantic aspects of information source, but also its various pragmatic functions can be encoded explicitly by verbal means or be conveyed more implicitly by textual strategies, multimodal resources and pragmatic inferencing (see Michael 2012:344–348 for a discussion of the role of implicature with particular reference to reported speech). Languages differ as to which meanings and functions are encoded explicitly, especially by grammatical means. This raises descriptive challenges, as for example in the case of the French conditional form: Is the main encoded meaning the attribution of a discourse to S_i , i.e. a referential, semantic property, which can have pragmatic overtones of uncertainty? Or, on the contrary, does the form primarily encode S_0 's lack of commitment, i.e. a pragmatic function, with evidential overtones (for a discussion of the issue see Dendale 2018)? The high degree of variation in this regard also makes it notoriously difficult to define the functional core of evidentiality as a grammatical category cross-linguistically: Mediated information (Guentchéva 2011), information source (Aikhenvald 2004, 2021) or epistemic authority (Bergqvist and Grzech 2023)? In our approach, which proceeds from meaning and function to form, these issues are secondary, however: the starting point of our analysis remains the category of information source, irrespectively of the precise role information source plays in grammaticalized evidential systems cross-linguistically. Maintaining this functional approach, in Section 3.3 we will now focus on the category of hearsay, which we locate at the intersection of information source and reported speech.

⁵ According to Caffi (2007), *shields* are one of three strategies of mitigation alongside with *bushes*, which alter propositional content or make it vague, and *hedges*, which alter illocutionary force or make it vague.

3.3 Hearsay at the intersection of reported speech and information source

3.3.1 Reported speech

Inspired by Calaresu (2004),⁶ who elaborates on Ducrot (1984) and Mortara Garavelli (1985), we define reported speech as an operation by which the current speaker S_0 represents a discourse authored by a different speaker $S_{i \neq 0}$. In what follows, we will also refer to Goffman's (1979) analysis of speaker roles, which will prove useful to reflect on the pragmatic functions of reported speech.

The term *speaker* is to be understood here as referring to the *speaker-as-such*, i.e. the instance S that produces the discourse (*locuteur-en-tant-que-tel* in Ducrot 1984:204, *locutore* in Calaresu's translation, cf. especially Calaresu 2004:84–91) and roughly corresponds to Goffman's (1979:16–18) *author* (the instance responsible for the discourse's wording). That instance theoretically differs from the speaker as an empirical producer of the discourse (roughly, Goffman's *animator*) and as a person or entity-of-the-world, who can become a referent of discourse, for example when speaking about oneself in the past (*locuteur-en-tant-qu'êtré-du-monde* in Ducrot 1984:99). Accordingly, the same person speaking in different moments of their life, or in different imaginary worlds, will be considered a set of variously indexed instances S . Any instance S differs, moreover, from what Ducrot calls an *enunciator* (*énonciateur*), i.e. an agent who is responsible for a point of view expressed (roughly corresponding to Goffman's *principal*). Accordingly, there is a difference between reported speech, which involves various instances S , and certain types of polyphony (such as irony) that multiply enunciators and points of view, but not necessarily speakers-as-such (see Dendale 2006 for a discussion of various types of polyphony and a comparison of various approaches to the phenomenon).

Besides the multiplication of instances S , or 'enunciative levels' (*piani enunciativi*, Calaresu 2004:112), the definition of reported speech requires that the discourse authored by S_i be represented. The representation can take the form of direct reported speech (characterized by a shift of the origin of personal deixis, i.e. 1st person singular deictic markers refer to S_i) or of various forms of indirect reported speech (1st person singular deictic markers refer to S_0). In contrast, a mere summary description of speech acts and topics (e.g. *She told him who had called, During the hearing the managers disclosed crucial information about the incident*) does not allow one to infer the content of what was said and is therefore not to be considered an instance of reported speech (Calaresu 2004:118–120).

6 For a brief review of the literature on reported speech in Romance cf. also Hassler (2002:2-14).

Reported speech can be expressed by a variety of formal and semantic means, for example mimetic techniques that imitate the voice, style or linguistic variety of S_i ; constructions with verbs of saying, writing, hearing and reading that take scope over an embedded discourse; sentence adverbs, adverbials, parenthetical clauses, particles, quotes/air quotes or morphemes placed within the reported discourse or adjacent to it.

3.3.2 The relation between reported speech and information source and the opposition between quotation and hearsay

Among the possible expressions of reported speech in Italian, Calaresu (2004:36–38) includes a set of grammatical and lexical markers of information source. She thereby acknowledges a functional overlap between the two categories.

Inversely, instances of reported speech, independently of their formal expression, can be used to convey the speaker's information source. Aikhenvald (2004:20) states that “reported speech can be viewed as a universal evidential strategy” because of important semantic and functional affinities between the two categories (cf. also Aikhenvald 2004:105, 132 ff.). It is important to specify that the evidential markers Aikhenvald considers as functionally equivalent to reported speech include *quotatives* on one side and evidentials that mark a piece of information as *reported*, or *hearsay*, on the other. According to Aikhenvald (2004:140), there tends to be a “division of labor” between them: Quotatives are typically used when a text is presented as corresponding verbatim to a discourse uttered by a specific S_i ⁷ and S_0 does not intend to take an epistemic stance towards the information. Hearsay markers, on the other hand, prefer contexts in which S_i and the precise wording are left unspecified; moreover, they tend to acquire epistemic extensions. Within our approach, hearsay evidentials are considered genuine expressions of information source, whereas prototypical quotatives can be expected to not always correspond to all the defining criteria of information source.⁸ This entails that, for us, as far as the evidential markers and strategies examined by Aikhenvald are concerned, the

⁷ Cf. also Wiemer (2010:100): “Literal reproduction of speech. This is what quotatives proper do.”

⁸ This view is compatible with Boye's (2012:32): “Meanings that are quotative in Aikhenvald's sense are considered non-evidential in the present study.” See also Michael's (2012:344–348) discussion, with regard to markers of others' discourse, of the contrast between those that express “informational source”, corresponding to the category of hearsay in our study, and those that express “illocutionary source”, i.e. quotation.

functional overlap between reported speech and information source is instantiated mainly by hearsay markers.

Despite the division of labour observed by Aikhenvald with regard to grammatical quotative and hearsay markers, in a functional perspective the distinction between quotation and hearsay is often not quite straightforward. Many reported speech constructions are polyfunctional. A symptom of this polyfunctionality is the fact that grammaticalization processes which originate in expressions of reported speech can yield both quotatives and hearsay markers, as shown by particles such as American Spanish *dizque* (Travis 2006; Wiemer 2010:92) and corresponding particles in other languages that agglutinate a form of the verb ‘to say’ and a complementizer (cf. the comprehensive study of such SayC particles in Romance conducted by Cruschina and Remberger 2008). As far as Italian varieties are concerned, Cruschina and Remberger (2008) analyze the Sicilian marker *dicica*, to which they attribute mainly quotative functions, but also hearsay functions when S_i is not specified.⁹ Another example is the grammaticalized use of *dice* (*che*) in Italian (cf. the literature referred to in Section 3.1). This marker originates in the third person singular present tense form of *dire* ‘to say’ but has lost the morphological categories of tense and number. Calaresu’s examples from a spoken corpus suggest a certain degree of polyfunctionality of *dice*: it mainly encodes quotation but is also compatible with hearsay.

When analyzing tokens of reported speech, the decision whether a given token indicates quotation or hearsay depends on several factors. In our view, reported speech is an expression of hearsay whenever the reported discourse conforms to the defining conditions of information source a-f described in Section 3.2.1 – independently of formal means and of the degree of precision with which S_0 refers to S_i or to the original wording. In example (2) cited earlier, both (i) and (ii) can be classified as reported speech, but we argued that only (i) indicates S_0 ’s information source, whereas (ii) does not satisfy the m-performativity condition (f). Other cases where reported speech does not indicate information source are, for example,

9 For Cruschina and Remberger (2008), more generally, the presence vs. absence of reference to a specific S_i is a major functional contrast. According to the authors, it not only coincides with the contrast between quotation and hearsay (Cruschina and Remberger 1998:98, fn. 2), but also divides second-hand information from third-hand information in the sense of Willett (1988:57, 96), to whom they refer several times. We are inclined to doubt that this particular interpretation of Willett’s chapter is correct, since the author consistently stresses the status of S_i as a direct witness as a criterion to distinguish second- vs. third-hand evidence, rather than the degree of specificity with which S_i is referred to. This is coherent with the overall nature of Willett’s typology, in which the direct vs. indirect contrast plays a major role. These theoretical issues notwithstanding, the finding we underlined regarding multiple grammaticalization paths for SayC markers emerges clearly from Cruschina and Remberger’s (2008) discussion.

imagined reported speech (*My brother would probably say this is nonsense*, condition b not satisfied), reports in which the speaker is not an experiencer (*They told you I sold the house, didn't they?*, condition c not satisfied), self-quotations (*I've told you a thousand times / I tell you this is nonsense*, condition d not satisfied because the speaker has not acquired the proposition 'this is nonsense' by hearing their own discourse),¹⁰ or, finally, reports of discourses that do not contain propositions in the sense of entities that can be said to be true or false (cf. the reported greeting in *She said "Hi everyone"* and the reported promise in *She promised she would come*, condition e not satisfied).

3.3.3 Interactional functions of hearsay

It is challenging to gain an overview of the interactional functions of hearsay based on the literature. On the one hand, these are treated in several fields: in research on rhetoric and argumentation, where instances of hearsay are analyzed as arguments from authority (e.g. Walton 1997), on discourse modulation in relation with speaker subjectivity (e.g. Ducrot 1974; Goffman 1979; Authier-Revuz 1995; Caffi 2007), on reported speech in conversation (e.g. Calaresu 2004; Clift 2006), on epistemic stance taking (see Section 3.2.2 and Jacquin 2022) and on specific evidential markers and constructions (e.g. Mushin 2001:193–202; Michael 2012). On the other hand, often quotation and hearsay are examined jointly, making it difficult to discern the specific pragmatics of hearsay.

Among the possible functions of information source in general (see Section 3.2.2), a distancing effect is often attributed to hearsay, also formalized as */+other/* in some evidential typologies (cf. Frawley 1992; Squartini 2001, 2002). This effect tends to be viewed as a means to reduce speaker commitment compared to unmarked utterances, in the sense of Caffi's (2007) shields. Also, in grammaticalized evidential systems, hearsay markers generally indicate a lower degree of source reliability than direct evidentials, assuming epistemic overtones of reduced certainty. These findings apparently conflict with evidence from argumentation studies, which show that arguments from authority can have considerable justificatory force, based on the expertise of S_i , S_i 's direct access to information as a witness (cf. also

¹⁰ The quotation of S_0 's discourse in the past and the performative, or metacommunicative, duplication of S_0 instances in the present have a rich array of pragmatic functions (see Authier-Revuz 1995; Michael 2012), among which, in our view, the acquisition of information plays only a very marginal role (e.g. when speakers use their own texts as sources to bridge a gap of memory). For a different view see Robin (2024, e.g. p. 57, 77, 198 ff.), who includes self-quotation *per se* (*discours rapporté authophonique*) in the domain of information source.

Willett's 1988 category of second-hand evidence) and, to a lesser degree, consensus ('everybody agrees that p'). Research on epistemic stance taking suggests that hearsay may both reduce and boost S_0 's epistemic primacy, depending on whether citing S_i in context is interpretable as showing S_0 's privileged access to the territory of information containing p.

3.3.4 The linguistic encoding of hearsay frame components and the question of their interactional relevance

We now return to the semantics of hearsay and formulate our research questions sketched in the introduction in more detail. Starting from the definition of information source as an experience in the past or present that involves S_0 acquiring a proposition the truth of which is relevant for S_0 's current action (conditions a-f), hearsay can be described as a frame that inherits these defining elements and constrains the properties of the experience, requiring that the proposition be contained in reported speech, as part of a discourse by $S_i \neq 0$. This basic hearsay frame allows for considerable semantic variation, depending on

- i. the degree of explicitness with which S_0 refers to participants and circumstances of the experience;
- ii. the degree of specificity and detail of the information available about these frame components, including the difference between S_i that are individuals vs. more vaguely defined groups, or the difference between strategies that unambiguously indicate hearsay vs. indirectness strategies that neutralize that contrast and are disambiguated as hearsay in context;
- iii. the properties attributed to the frame components, e.g. basic event-related properties such as temporal deixis, aspect and Aktionsart, which contribute to situate the hearsay experience in time and, in the case of past events, may indicate different degrees of current relevance; but also the written vs. spoken modality of S_i 's discourse, subjective vs. intersubjective reference to S_0 , and more contingent attributes and circumstances that may become relevant in context.

We believe that the various ways of encoding frame components expose different aspects of the experience of knowledge acquisition, which, in relation with their sequential position, may have a differentiated impact on S_0 's epistemic stance. As outlined in the introduction, we therefore ask, first of all, which hearsay components and attributes are most prominent in interaction in terms of their frequency and detail of explicit encoding. Secondly, we will look at contexts in which semantic contrasts can be observed during the sequential unfolding of talk, more specifically,

at sequences of repair. In such contexts, which frame components do participants orient to particularly and which pragmatic effects do their encoding, lack of encoding, and reformulation have?

3.4 Talk-in-interaction with a focus on repair practices

To investigate the issues raised in 3.3.4, naturally occurring interaction is a highly informative context of observation. More generally, conversational data have a potential for renewing our understanding of evidentiality as a linguistic category, as has been highlighted recently by Bergqvist and Grzech (2023, cf. 3.2.2) and by Mushin (2013:628), who underlines that the study of information source and related categories in conversation lends “important support for a model of language as emergent and ultimately subject to the local needs of the interactive context”. In what follows, we recall some fundamental notions that need to be integrated into the theoretical and methodological toolkit to approach information source from that angle.

Talk-in-interaction is a specific mode of communication (the “speech mode”, Voghera 2017), characterized by a dialogic infrastructure based on turn-taking and action sequences (on sequentiality, see Schegloff 2007), the audio-visual channel, and the synchronous production and reception of talk. These situational constraints correspond to specific linguistic “correlates” in the textual, syntactic and semantic structure of talk (cf. also Bazzanella 2005:40). For instance, the co-presence of the speaker and the hearer in the same spatio-temporal context favors deictic devices, references to implicit shared knowledge and common ground, as well as practices to communicate the speaker’s stance towards their discourse and to maintain mutual understanding and affiliation with co-participants. Other traits, e.g. the online planning and volatility of spoken discourse and the impossibility of erasing previous formulations favor “light” constituents (Voghera 2017:189 ff.) in turns and sequences, which are characterized by modulations, corrections, repetitions and other forms of redundancy. Within the framework of Interactional Linguistics, grammar-in-interaction has been described as underlining its temporal unfolding (Hopper 2011, Mushin and Pekarek Doehler 2011): Participants renegotiate the syntactic makeup and the completion of units in their turns moment by moment, in order to adapt to continuously changing communicative needs (“local contingencies”, Haselow 2016:79).

The situational constraints of face-to-face interaction operate at the semantic level as well. The construction of meaning is rarely linear, but rather dis-

plays a “spiral” progression, as speakers move back and forth between vague, “low-resolution” formulations and more specific ones (Voghera 2017:163). The desired representation is approximated step-by-step, crucially relying on the cooperation and feedback by the co-participants. Recent research on the construction of categories in interaction has built on this assumption, showing how reference to entities, groups and complex event frames is performed incrementally and collaboratively through successive specifying reformulations, achieving a “zoom-in” effect (Mauri 2021). Along similar lines, the enterprise of interactional semantics (Deppermann and De Stefani 2023) highlights the sequential grounding of practices to achieve “*Bedeutungskonstitution*” (Deppermann 2002, roughly, the establishment of meaning) – practices that centrally include specifications and (re)formulations (Deppermann 2023).

Like other categories, information source and its subcategories can be viewed as resources that are shaped by the sequential and incremental construction of talk (cf. also Battaglia in preparation). In one module of our study, we observed this process through the lens of repair as a universal practice that operates at the intersection of sequential organization, the incremental construction of turns at talk, meaning units, and intersubjectivity (Dingemanse et al., 2015).

Repair has been described as “a locally managed, interactionally organized, procedural architecture through which participants preserve intersubjective understanding” (Fox et al., 2013:1), resolving issues related to speaking, hearing, understanding, and reference, as well as agreement, acceptability, and expectations halting the progressivity of talk. Since early work by Schegloff, Jefferson and Sacks (1977), conversation-analytic and interactional linguistic research has unpacked the main structural properties of repair (for an overview see Couper-Kuhlen and Selting 2018:112–210): (i) Repair proceeds in two phases: the initiation phase, where the trouble is identified, and the outcome phase, where the issue is addressed and resolved. (ii) Both phases of repair can be performed by either the speaker (self) or another participant (other), resulting in several possible configurations. Self-initiated self-repair is the most frequent and preferred type. (iii) Repair tends to occur in specific, preferential positions or slots, such as within the same turn, the transition space after a potential turn completion, the next turn, or the third turn after a co-participant’s reaction (Schegloff 1992).

We investigated how hearsay sources are (re)formulated in repair sequences, examining the emerging semantic contrasts and dynamics of specification in a double perspective: against the background of the frame semantic model outlined earlier, on the one hand, and looking at the pragmatic effects of reformulation on the other hand, especially with regard to epistemic stance taking. This combined analysis gives insights into which frame components are foregrounded or backgrounded in precise sequential moments, in relation to a problem to be

repaired, and allowed us to explore the interactional relevance of specific semantic components of information source. In our analysis, we integrated insights from a few papers – the role of repair in epistemic stance taking has received little scholarly attention so far – which show that participants are sensitive to asymmetrical distributions of knowledge when initiating and performing repair (Bolden 2013, 2018; Robinson 2013) and sometimes use this practice to “remediate infelicitous epistemic stances” (Bristol and Rossano 2022).

3.5 Data and methods

This study draws on conversational data from the TIGR corpus of spoken Italian (Infinita, FNS grant no. 192771). The corpus was video-recorded in the Italian-speaking regions of Switzerland (Ticino and Grisons) and transcribed according to the GAT 2 conventions (Selting et al. 2011). We employed the “fine transcript” level of granularity with minor adaptations.¹¹ For this study, we selected a sub-corpus of four dinner and lunch table conversations (six hours in total, see Table 1). The conversations involve seventeen participants, all of whom share close relationships, such as friends, classmates, family members, or couples. As is typical for table conversations, turn-taking is free, and the choice of topics is quite unconstrained.

Table 1: Dinner and lunch table conversations contained in TIGR.

Event code	Length	Participants
EV2	01:05:06	3
EV4	01:25:15	3
EV5	01:07:34	3
EV6b	01:05:05	4
EV7	01:22:03	4
total	6:05:03	17

We adopted a broad conversation-analytic approach to examine the data. As a starting point, we inspected the transcripts and built a collection of 126 instances of hearsay based on the functional criteria defined in 3.2 and 3.4. Each identified case corresponds to a single hearsay construction applied to a content *p* and some surrounding co-text. In instances where multiple hearsay constructions had scope

¹¹ A tilde sign ~ has been added to the GAT 2 conventions to mark word truncation.

over the same p , each instance was counted separately. The analysis proceeded in two phases.

In the first phase, we coded formal and semantic parameters. The coding parameters and a closed set of values were drawn from an annotation scheme developed within the *InfinIta* project, which is grounded in the theoretical framework outlined in 3.2.1–3.3.3 and informed by repeated cycles of qualitative analysis using the TIGR corpus and other spoken Italian corpora. While a thorough justification of this scheme is beyond the scope of this paper, its application to hearsay offers a preliminary overview of this evidential category in Italian, which is essential to our argument developed in Section 3.7. At the level of form, we distinguished several types of relations between the hearsay strategy and its propositional scope (morphological, syntactic, textual), and identified the constructions' core lexemes (see the results in 3.6.1.) At the level of meaning, we described the components of hearsay frames as outlined in 3.3.4. We assessed whether these elements were explicitly verbalized in each strategy and distinguished possible values at varying levels of granularity (see the results in 3.6.2.).

In the second phase, we conducted an in-depth sequential and interactional analysis of repair practices involving hearsay strategies. The analysis was narrowed down to a subset of 48 hearsay constructions, representing 38% of the initial dataset, which either contributed to or were affected by a repair involving the propositional content p . We delimited 32 sequences of repair of p in which a hearsay construction with scope over p was present either in the repairable segment or in the repairing segment or in both. We examined the repair structure (self- vs. other-initiated, self- vs. other-repair), the semantic operations performed (e.g., addition, specification, correction), the type of problem targeted by the repair, and the effects of reformulation on the participants' epistemic positioning. In cases where several hearsay strategies were present, we traced the subsequent encodings of particular hearsay frame components.

3.6 Hearsay in the corpus

3.6.1 Formal properties

The formal classification of hearsay strategies in the corpus yields the results in Table 2.

The corpus contains only 3 instances of the imperfect and 1 instance of a modal verb in the conditional form, suggesting that the most grammaticalized strategies, which have been much discussed in the existing literature, are relatively marginal

Table 2: Hearsay constructions in the TIGR corpus.

Formal properties	N=	%
Imperfect	3	2%
Modal verb	1	1%
Adverbial	18	14%
Complement taking predicate	75	59%
Coreference relations	17	14%
Narrative coherence relations	12	10%
total	126	100%

in everyday conversation. Some lexicalized adverbials in the form of prepositional phrases, such as *in teoria* ('supposedly'), *a quanto pare* ('apparently'), and *da quello che ho capito* ('as far as I understood'), together account for 18 instances in the dataset. The majority of constructions in our corpus, however, feature a lexical predicate that takes semantic (and possibly syntactic) scope over the propositional content *p* and whose argument structure allows for the specification of various components of the hearsay frame (cf. 3.6.2). These lexical predicates conform to a Zipfian distribution: the verb *dire* ('say') is overwhelmingly frequent, occurring 70 times, while other verbs such as *parlare* ('talk'), *vedere* ('see'), *leggere* ('read'), *scrivere* ('write'), *raccontare* ('tell'), *sentire* ('hear'), and *ascoltare* ('listen') appear between 2 and 7 times.

Within this group, in most constructions (75 instances, 59%) the lexical predicate embeds *p* as a complement through a syntactic relation. This set exhibits variation around the type [(S_i) SAY *p* (to S₀)], depending on whether arguments are explicitly encoded, on the temporal and aspectual properties of the verb, and on the presence or absence of the complementizer *che* ('that'). Examples include *PERSONNAME9 ha detto che p* ('PERSONNAME9 has said that *p*'), *diceva* ('he/she used to say'), *sta dicendo che p* ('he/she is saying that *p*'), *mi hanno fatto notare* ('they pointed out to me'), *mio fratello dice che p* ('my brother says that *p*'), and *mia NONna: dice* ('my grandma says').

Lexical predicates referring to hearsay experiences can also operate over *p* through textual relations. These strategies account for 24% of the data in the set. One possibility is through co-reference relations (17 instances), where the lexical predicate locally governs an element that refers back to *p* via anaphora. Examples include *me l'ha detto* ('he/she told me that'), *è famosissima questa cosa* ('this is well known'), *lo vedevo, anche su Will* ('I used to see that on Will'), and *m'ha=m'ha raccontato tutto*. ('he/she told me everything').

Another possibility involves coherence relations (12 instances) between an utterance₁, describing an event of discourse production or reception, and an utterance₂, describing a propositional content *p* that is compatible with hearsay acquisition. Although utterance₁ encodes a potential hearsay frame through a lexical predicate and its argument structure, the evidential relation between utterance₁ and utterance₂ is implicit and must be inferred in virtue of its contextual salience (cf. 3.2.2.). This is the case when textual coherence prompts one to interpret the information *p* in utterance₂ as acquired during the event described in utterance₁. Examples include *ci ha parlato;* *un professore, di una=un †nuovo libro della Treccani* (‘a professor told us about a new book edited by Treccani’, followed by information *p* about the book’s price), *leggevo stamattina, le notizie* (‘I was reading the news this morning’, followed by information *p* about Covid), *avevano fatto dei servizi su Will* (‘they did reports on Will’, followed by information about vegetarianism covered by the media service Will), and *ho visto un v:ideo::; su: su Instagram* (‘I saw a video on Instagram’, followed by information *p* reported in the video).

3.6.2 Semantic properties

3.6.2.1 S_i

In our collection, the most frequent category (57%) are hearsay strategies that refer to a specific S_i, often via a proper name (e.g., *PERSONNAME9 ha detto che* ‘PERSONNAME9 said that’) or the title of a written text (e.g., *nella Bibbia si dice che* ‘in the Bible it says that’). In the remaining cases, S_i’s identity is left vague, sometimes allowing for an interpretation of the proposition as being an element of folklore (Kittilä 2020, Kotwica 2023). Speakers then refer to groups of people (e.g. *lo dicono tutti* ‘everybody says that’) or do not mention S_i at all (e.g., *questo l’avevo letto* ‘I read that’). In about 11% of the cases, the construction *per se* is even compatible with inferential readings (e.g., *a quanto pare* ‘apparently’), the hearsay interpretation being just the most plausible one in context. Results are reported in Table 3.

Table 3: Specification of S_i.

S _i : Other speaker/document	N=	%
Unspecified hearsay/inferential	14	11%
Implicit S _i	25	20%
Group	15	12%
Individual	72	57%
total	126	100%

3.6.2.2 Modality (spoken vs. written)

Speakers have the possibility to indicate the modality of the cited discourse, spoken vs. written, a contrast that entails, on S_0 's side, different ways of receiving the reported information. Some hearsay strategies are neutral in this regard (e.g., *dicono che p* 'they say that p' is compatible both with oral and written sources), but the speakers in our collection generally prefer communicating the discourse modality explicitly, as shown by results in Table 4. In almost 80% of the cases, hearsay strategies clarify through lexical means whether the speaker has heard the information (e.g., *l'ho sentita da qualche parte* 'I've heard that somewhere') or has read it (e.g., *questo l'avevo letto* 'I read that').

The parameters S_i and modality vary independently of one another: a greater degree of specification as to the modality can be paired with indeterminacy as to S_i , as shown by the expressions just cited.

Table 4: Specification of the modality of access to the reported information.

Modality	N=	%
Unspecified hearsay/inferential	14	11%
Hearsay, modality unspecified	13	10%
Hear – Oral discourse	84	67%
Read – Written discourse	15	12%
total	126	100%

3.6.2.3 Experiencer

Table 5 shows that in 38% of the examined cases, the speaker is explicitly encoded as the recipient of the reported information and thus foregrounded as a direct participant in the reported speech event (e.g., *mi hai detto che* 'you told me that'). In a few cases, an exclusive *we* referring to S_0 's in-group is profiled as a recipient (e.g., *ci ha parlato un professore* 'a professor told us'). The information can also be accessed intersubjectively, either by the participants in the current interaction (e.g., *hai visto che p* 'have you seen [= read] that p'),¹² or by a wider community (e.g., *questo è risaputo* 'this is well-known'). In little over a half of the cases, the hearsay strategy does not explicitly refer to any experiencer (e.g., *lo diceva anche lui* 'he also said/used to say that') and S_0 's access to the information is merely implied.

¹² See Miecznikowski, Battaglia and Geddo (2023) for an analysis of second person forms of *vedere* as conveying reference to an intersubjective experiencer.

Table 5: Specification of the experienter of the report.

Experienter	N=	%
Unspecified	68	54%
Generic community	5	4%
Interaction participants	3	2%
In-group	2	2%
Speaker	48	38%
total	126	100%

3.6.2.4 Spatio-temporal circumstances

As to the spatio-temporal circumstances of the report, most hearsay experiences are presented as having taken place in the past, usually once (e.g., *mi hai detto che* ‘you told me that’, where the aspectual properties of the Italian Perfect forbid an iterative reading). In some cases, the coordinates of the event are even specified with a fair amount of detail (e.g., *qualche settimana dopo che eravamo andati era uscito un articolo sul giornale, che...* ‘a few weeks after we went there a newspaper article came out, which...’). These two categories account for half of all cases in the collection, as shown in Table 6.

In the other half of the cases, the temporal deixis and aspectual properties are less clear. We find strategies with verb forms that are compatible both with a single or a repeated hearsay experience in the past (e.g., *lo diceva anche lui* ‘he also said/used to say that’, where the Imperfect tense does not impose either unique or iterative reference). The most indeterminate strategies, with regard to temporal and aspectual properties, are expressions without verb forms, which we find in about 10% of all cases (e.g., *in teoria* ‘supposedly’). Note that grammaticalized atemporal *dice (che)* (cf. 3.3.2.) is not attested in our data.

There are a few examples, finally, where the hearsay experience takes place during the interaction (S_i is a co-participant, e.g., *sta dicendo che* ‘he’s saying that’).

Table 6: Specification of the spatio-temporal circumstances of the report.

Spatio-temporal circumstances	N=	%
Temporal deixis unspecified (past, in situ?)	13	10%
Undefined past (single event, repeated event?)	45	36%
Past (single event)	52	41%
Past (single event) + spatio-temporal details	13	10%
In situ	3	2%
total	126	100%

3.7 Hearsay in repair sequences

3.7.1 Sequential properties and semantic operations: overview

Our collection of 32 repair sequences includes both self- and other-repair, with a preponderance of self-repair. More precisely, we found 26 instances of self-initiated self-repair, 3 instances of other-initiated self-repair and 3 instances of other-initiated other-repair.

The first, most frequent, category is illustrated by example (3) taken from a dinner conversation among fellow students:

(3) TIGR_EV6B

- 1 (0.53)
- 2 REBECCA [è gia partita?]
[has she moved?]
- 3 ROBERTO [e son partiti?]
[and have they moved?]
- 4 FIONA allora (.) ↑PERSONPERSONNAME11 sì,
so (.) ↑PERSONPERSONNAME11 has,
- 5 (.) cè s~ allora; sono andati, tutti e due;
(.) I mean th~ so; they left, both;
((side sequence on a different topic, ca. 30s))
- 6 FIONA ((laughs)) (--) °hh ehm:; (.) °h no allora sono e~ [a]desso
((laughs)) (—) °hh ehm:; (.) °h well they're b~ [n]ow
- 7 REBECCA [eh]
[eh]
- 8 FIONA **dovrebbero** essere su entra~ cè allora; non mi ricordo
they should both be there I mean well; I don't remember
- 9 precisamente.
exactly.
((Fiona adds details and finally produces a precise answer))

Just before this exchange, Fiona narrated a recent amusing encounter with a couple her co-participants are acquainted with as well. Rebecca and Roberto take the opportunity to inquire about these friends' whereabouts (l. 2–3), knowing that they were to move to Berlin. Fiona starts responding, showing some hesitation (l. 5), but the sequence is suspended because of a series of turns related to the interactants' current activity. The self-repair that is of interest here occurs at l. 6 and 8, when Fiona returns to the previous topic to complete her answer. She changes the epistemic qualification of her statement by replacing an unmarked indicative

present tense *sono* ('they are') with the modal evidential *dovrebbero* ('they should be'). The conditional form of *dovere* 'must' is a marker of indirect evidentiality that is compatible with hearsay and with inferential readings. This token allows for the interpretation that a well-informed person (a member of the couple or someone else) recently gave Fiona the exact information she is formulating, i.e. that both partners are in Berlin (hearsay); furthermore, it is compatible with a situation in which Fiona infers the current situation from an earlier announcement made by someone concerning the couple's plans or from other statements or observations more indirectly linked to the current situation.

After this operation of self-repair, Fiona produces a further repair, introduced by the discourse markers *cè allora* ('I mean'), disclaiming responsibility in remembering exact details; this disclaimer preludes to a lengthy reasoning, not reported here, by which she will eventually complete her answer and have it accepted by the participants who requested the information.

Other-initiated self-repair is exemplified by (4):

(4) TIGR_EV6B

- 1 FIONA no pa~ è più comodo, (.) e:: ci s~ rischi meno malattie.
 no gi~(ving birth) is more comfortable, (.) a:nd there a~ you risk less
 diseases.
- 2 REBECCA in casa?
 at home?
- 3 FIONA in teoria sì.
 supposedly yes.

This short extract is part of a longer debate about the advantages and risks of giving birth at home. At l. 1, Fiona reacts to immediately preceding turns by Roberto and Rebecca: she confirms an advantage mentioned by Roberto (giving birth at home is more comfortable) and addresses a concern voiced by Rebecca, who observed that there are a lot of germs circulating, suggesting that there is a high risk of contracting diseases. Fiona claims that, on the contrary, home birth is safer (than birth in a hospital) in this regard. The repair sequence that is relevant here is initiated at l. 3 by Rebecca, who does not ratify Fiona's statement, but rather formulates a confirmation request (*in casa?* 'at home?'). Considering Rebecca's stance taken up to that moment, her initiation of repair, even if formally similar to a request for clarification, is likely to be interpreted as challenging Fiona's opinion. Fiona confirms Rebecca's candidate understanding (*sì* 'yes'), thus restating the same content as in l. 1, and adds the evidential strategy *in teoria* ('supposedly', lit. 'in theory'). In our view, *in teoria* is best described as quite a generic indirectness marker; it often

in question adding such a strategy, with the effect of clarifying the basic type of source for that proposition. This configuration is present in 13 of the 32 instances of repair in the collection and will be discussed in more detail in Section 3.7.2. Another frequent case (14 out of 32 repairs) is a configuration in which a hearsay strategy is present in the repairable segment and the repairing segment contains one or more further hearsay strategies that add more detail, targeting the accuracy and specificity of hearsay marking. The semantic contrasts that emerge from this kind of practice regard various frame components (S_i , the experiencer, spatio-temporal circumstances) and will be discussed in Section 3.7.3. Finally, in 5 instances, the speaker first employs a hearsay marker and then, inversely to the previous case, produces a self-repair that takes the form of a disclaimer, suggesting that no further details can be provided (e.g., ‘but I don’t know precisely’, ‘I can’t remember exactly’, cf. example (3), l. 8–9). We will comment on this case in Section 3.7.4.

3.7.2 Adding a hearsay source to clarify the basic type of information source

Repair can be an opportunity, for speakers, to add a hearsay source to a repairable that is not qualified evidentially or contains only very generic reference to knowledge (e.g., in our data, *so* ‘I know’ or *ricordo* ‘I remember’). When hearsay markers, or indirectness markers compatible with hearsay, are added as part of a repair, our data suggest that they allow speakers to acknowledge and manage referential problems while maintaining a K^+ stance.

In (3), the repair is placed in Fiona’s answer to a question, i.e. in a situation in which she is attributed epistemic primacy, and *dovrebbero* suggests access to relevant information given by people in a position to know, thus allowing her to maintain that primacy even if she is uncertain about some elements of her answer. In (4), *in teoria* might have mitigating functions after Rebecca’s potentially challenging other-initiation of repair, but is followed anyway by Fiona reasserting her standpoint rather than relinquishing her claim to have reliable knowledge about home birth. The hearsay source, which suggests a reference to expert discourse in this case, allows her to maintain epistemic primacy in a situation in which Rebecca, the challenger, merely based her concerns on personal inferences. The other-initiated other-repair by Luciano in (5) occurs in a situation of epistemic symmetry and shared perceptual access to the relevant source (the pasta packet Marianna holds in her hands). The reference to what is written on the packet allows Luciano to claim epistemic authority and Marianna accepts that, while underlining (via the discourse marker *eh*) that she has access independently.

We will now comment on two examples of this semantic configuration in repair that contain more complex and specific expressions of hearsay. This will allow us to reflect on the way further hearsay details contribute to maintaining epistemic authority.

Excerpt (6) reproduces part of a sequence in which Roberto, who was asked about his upcoming exam of Hebrew literature, tells his friends about the contents of the course. The topic here is King Salomon:

(6) TIGR_EV6B

- 1 ROBERTO *cè perché; (.) di fatto salomone, viene (-) poi rivi:sto;*
well because; (.) in fact salomon, is (-) later reconsidered;
 2 *nel medioevo e nel rinascimento; (--)^{°h} <<p> come se mh cè>*
in the middle ages and the renaissance; (--)^{°h} <<p> as if mh I mean>
 3 *avendo ascoltato una volta; (-) le cose,*
having heard; (-) these things once,
 4 *mh mh perché non è un coso così difficile,*
mh mh because it's not so complicated,
 5 *(-)^{°h} viene visto come una forma di:;*
(-)^{°h} he is seen as a kind of;
 6 *mh: intellettuale, (--)^{°h} universale.*
mh: (-)^{°h} polymath.
 7 FIONA *hm_hm ah sì.*
mh mh oh right.

Roberto formulates a statement, at l. 1–2, about king Salomon being reconsidered during the Middle Ages and the Renaissance. After a first transition relevance place, in l. 2 Roberto starts to expand his turn by producing the beginning of a subordinate clause (*come se* ‘as if’), but then aborts this syntactic project and, after the reformulative discourse marker *cè* (‘I mean’), produces a self-repair that targets the entire rhematic part of the utterance. The repair slightly changes the verb (*viene rivisto* > *viene visto*) and, more importantly, adds a complement (*intellettuale universale* ‘polymath’) that specifies the idea about Salomon that prevailed in the Middle Ages and the Renaissance and is new, focused information. The repair comes to a conclusion at l. 6 right after this complement and is taken up by Fiona at l. 7.

While the first version of the statement (l. 1–2) is not qualified evidentially, Roberto inserts a reference to a hearsay source in the self-repair right after the reformulative marker *cè* ‘I mean’. First of all, he states that he has ‘heard these things once’. The verb *ascoltare* (‘to listen, hear’) foregrounds *S*₀ as an experiencer rather than *S*_i and, besides temporal and aspectual properties (past, perfect aspect, *una volta* ‘once’), does not specify any circumstances; in context, the construction

refers to the course teacher as S_i and indicates that Roberto has acquired the information by listening to him in class. Moreover, Roberto adds an expansion about the simplicity of the content in question, which arguably targets the reliability of the experience as an information source; indeed, the reliability of ephemeral spoken discourse as a source depends on the receiver's capacity to understand and memorize it immediately, which in turn depends (among other factors) on the complexity of the discourse.

Pragmatically, the addition of this hearsay source to Roberto's self-repair has various effects. The most obvious effect is that it delays important focal information. This, in turn, is interpretable both as a rhetorical device to increase the interlocutors' attention towards that information and as a sign of dispreference, indicating something problematic about the categorization of Salomon as a polymath (e.g. that it could be somewhat imprecise, or inappropriate, or contrary to the interlocutors' expectations). That the categorization is problematic is suggested also by various hesitations and "bushes" (according to Caffi 2007) that increase vagueness (the 'as if' construction and *una forma di* 'a kind of'). As to epistemic stance taking, in this context, and considering the frame components foregrounded by Roberto, we think it is safe to say that the main function of this hearsay strategy is to enhance Roberto's epistemic authority regarding the propositional content. It is true that the strategy resonates with hesitations and vagueness markers to signal dispreference and evokes a possible issue regarding the reliability of the source. But common hedging effects of hearsay are actually avoided: not only Roberto minimizes distancing by choosing a construction focused on S_0 , but S_i is also clearly an expert with regard to the content at issue and therefore a priori reliable. Also Roberto, eventually, explicitly downplays the risk of misunderstanding the teacher's discourse. Finally, Fiona's immediate ratification by means of the change of state token *ah* and confirming *sì* treats Roberto's statement – and especially the final categorization in focus – as a (new) fact and confirms Roberto's $K+$ status.

Consider now example (7), in which Marica opens a sequence to inform her co-participants Carola and Marcella about an association in Ticino (Switzerland) that represents the interests of highly sensitive people:

(7) TIGR_EV4

- 1 MARICA °h ma, eh: in tiCIno, <<laughing> so che c'è>,
°h but eh: in tiCIno, <<laughing> I know there is>,
- 2 (.) eh:: (.) ascoltavo la radio non l'ascolto mai,
(.) eh::: (.) I was listening to the radio station I never listen to it,
- 3 eh: però (.) quando ho cambiato l'auto;
eh: but (.) when I changed my car;

- 4 (-) n:=mh h° (.) non c'è praticamente,
 (-) n:=mh h° (.) *basically there's not;*
- 5 no=non c'è neanche una chiavetta usb,
 no=*there's not even a usb drive,*
- 6 per poter ascoltare un po' di musica,
 to listen to some music,
- 7 allora ascolto la radio. (--) °h e parlavano,
 so I listen to the radio. (--) °h and they were talking
- 8 delle <<len> perso:ne:> a:d ↑alta sensibilità.
 about, highly sensitive peo:ple:.
- 9 e c'è proprio u:n'associazione, che,
 and actually there is a:n association, which,
- 10 (.) mh::: chiaramente rappresenta,
 (.) *clearly, represents ((their interests)),*

The topic is occasioned by a previous sequence in which Carola had told a not-too-serious anecdote to position herself as a highly sensitive person and the co-participants had joked about this personality trait of hers. The sequence takes place during a long interaction over dinner where the three friends manifest their intimacy by often doubting each other's credibility in a humorous tone (see also example (9) in Section 3.7.3). Marica at l. 1 projects the proposition that will become the object of repair: she utters the initial part of a topicalizing structure composed of a spatial complement (*in ticino*) followed by a generic epistemic verb + complementizer (*so che* 'I know that') and the existential construction *c'è* ('there is'). The projection is interrupted as Marina engages in a repair sequence to specify what her information source is. She narrates having listened to a radio show while driving her car, thereby setting up a hearsay frame relevant to the statement just suspended. The quite rich details she provides have similar effects of delay to those observed in the previous example, and, more importantly, underline the uniqueness of the experience and Marica's good memory of it, such as to boost the reliability of the experience as a source. The repair is completed at l. 7–10 in two steps, first by narrativized others' discourse to reintroduce the topic of highly sensitive people and then by resuming the suspended existential construction *c'è* ('there is') to complete the rhematic part of the proposition. Marica's self-repair reduces the vagueness of *so che*, anticipates any possible doubts by the co-participants, and strengthens Marica's epistemic stance.

In the subset of repair sequences discussed in this section, speakers add a hearsay source to a proposition *p* that at first was not qualified evidentially. When an author or document *S_i* is specified, we argued that *S_i* can be considered to possess expertise or firsthand information about *p* examples (5)–(7). In some cases,

speakers moreover underline their personal involvement as a recipient and cognizer in examples (6) and (7) or display that involvement multimodally by displaying attention to a currently present written source example (5),¹⁴ a finding that confirms the relevance of the experiencer parameter, as suggested by the quantitative results presented in Section 3.6.2.3. A recurrent pragmatic function of indicating a hearsay source during repair is that it contributes to signal K+ stance. Concurrent indicators of K+ stance we encountered in our data were S' turn being an answer to a question addressed to S example (3), S reasserting p even after a challenge examples (3) and (4), and the interlocutor acknowledging the formulated information by signaling shared access *eh sì*, example (5) or change-of-state *ah sì*, example (6).

3.7.3 Correcting and specifying components of hearsay frames

As anticipated in 3.7.1, in almost half of the repairs collected (14 out of 32), a hearsay construction is present both in the repairable segment and the repairing segment. In the majority of cases, speakers add more detail in the repairing segment; only few cases of correction are attested, which did not change the basic type of source (hearsay), but single frame components. Like in the subcollection discussed in 3.7.2, at the semantic level, repair is thus mainly used for evidential specification. At the pragmatic level of epistemic stance taking, the second subcollection confirms the tendency observed in 3.7.2, which shows that evidential specification occurs in contexts where speakers claim, or maintain, a K+ stance with regard to p. Communicating a hearsay source more precisely seems to be a means for speakers to appear well-informed and entitled to assert the proposition, or rather, in relative terms, to appear better informed and more entitled than their interlocutors.

A first example that illustrates these tendencies is excerpt (8), which follows a sequence in which four friends discussed the relocation abroad of some friends. Rebecca here claims that there are moving companies specializing in the international transport of furniture. The formulation of this idea p, which includes several repairs, starts from an incomplete syntactic projection at l. 1 (*per il* 'for the'), proceeds with a generic cataphoric announcement at l. 4 (*esiste sta cosa* 'that thing exists') and is eventually completed at l. 7–8. It is presented as hearsay information from the very start and several phases of repair, including a last other-initiated repair at l. 10, target various components of the hearsay frame.

¹⁴ See Geddo (in preparation) for an in-depth analysis of multimodal practices by which participants refer to knowledge sources that are present *in situ*.

(8) TIGR_EV6B

- 1 REBECCA <<len>°h io non mi ricordo, chi mi ha detto che per il;>
I can't remember; who told me that for
- 2 (.)↑ah no, forse la giulia.
 (.) *oh no, giulia perhaps.*
- 3 FIONA ((laughs))mh s[i?]
 ((laughs)) *mh re[ally?]*
- 4 REBECCA [no,](-) no=no però esiste sta cosa.
 [no,](-) *no=no but this thing exists.*
- 5 e forse, (.) n:on lo so, anche perché non è il suo caso che
and maybe, (.) I do:n't know, also because in her case she doesn't need
- 6 debba spostare dei mobili,
to move furniture,
- 7 che praticamente, ci sono delle (---) ((tsk)) agenzie, servizi,
that basically, there are some (---) ((tsk)) agencies, services,
- 8 che fanno: apposta. (.) cè che (.) ti (.) ti (.) inViano
 la roba,
that do: exactly that. (.) that is (.) they (.) send you the stuff.
- 9 FIONA sì va be':,
sure whateve:er;
- 10 REBECCA o forse è uno di noi, che va in erasmus; forse che me l'ha
 detto.
or perhaps it's one of us, leaving for erasmus; maybe who told me that.

Our comment will focus on the way Rebecca progressively builds the hearsay frame. Initially (l. 1), Rebecca signals hearsay from an unspecified source. Her formulation with an embedded interrogative question, *non mi ricordo, chi mi ha detto* ('I can't remember who told me'), presupposes 'someone told me' and presents this hearsay experience and her personal involvement as factual; at the same time, in the focused part of the utterance she laments lack of memory about the identity of S_i, suggesting a particular relevance of this part of the frame. A first reformulation of the source occurs in a self-initiated self-repair after a short pause and a high pitch change of state token *ah* + negation particle, displaying sudden remembering; at l. 2, she gives a tentative answer (*forse* 'perhaps') to her own indirect question, referring to her friend Giulia as possibly being S_i. After a surprised reaction by Fiona at l. 3, Rebecca addresses two problems at once, i.e. maintaining her assertive commitment (l. 4) and trying to identify S_i. To the latter aim, Rebecca makes an interesting argumentative move. She produces a counter-argument against her own hypothesis that Giulia is S_i, specifying that Giulia has not moved furniture recently. This counter-argument

implies that recent direct experience with the subject matter of *p* would be a decisive criterion to cite someone as a *S_i*, probably both in the sense of second-hand evidence for *p* – a source whose reliability is warranted by *S_i*'s status as a direct witness – and because of some expertise that *S_i* could have acquired from others' discourses while preparing his or her own relocation. At l. 10, Rebecca makes a last attempt to identify *S_i* after having completed *p* (l. 7–8) and having obtained a less than convinced reaction by Fiona (l. 9): she now attributes the report to an unidentified classmate who is preparing for a student exchange, maintaining her cautious epistemic stance on the matter. This last hypothesis confirms the relevance of direct experience with moving abroad as a relevant criterion and warrant of reliability.

This example shows the pragmatic relevance of both the properties of *S_i* and *S₀*'s personal involvement when indicating a hearsay source. In a situation of persistent uncertainty about who exactly said *p* (*forse*, l. 2, 5, 10, *non ricordo*, l. 1, *non lo so*, l. 5), Rebecca uses various means to underline that, anyway, some *S_i* factually said *p* and *S_i* has a specific kind of relevant experience. Her personal involvement regards both the hearsay experience per se (*mi/me*, l. 1, 10) and her general familiarity with *S_i* (a friend or classmate), which might be considered relevant to assess the entitlement of *S_i* to give correct information about moving abroad. Let's note, finally, that, despite uncertainty and Fiona's skeptical reactions, the maintenance of a *K+* stance is ultimately successful, since Fiona does not claim to have better access to the domain of knowledge in question than Rebecca.

Example (9) shows similar dynamics of specification affecting hearsay frame components, which is however part of a more confrontational sequential development of epistemic stance taking. The proposition *p* under scrutiny in this example is that one dose of Covid vaccine is sufficient for people who have had the disease previously. It is uttered by Marica at l. 1–2, who has been infected previously, has had a first dose of the vaccine and has displayed her reluctance to take a second shot of the vaccine earlier in the conversation. *P* is an argument in favor of Marica's plan to not take a second dose and is qualified by a quite generic hearsay strategy: *dicono che* ('they say that'). Subsequently, *p* is disputed by Marcella and the two friends engage in a lengthy sequence of repair that regards both *p* and its source.

(9) TIGR_EV4

- 1 MARICA mh tanto, ho fa=ho avuto il covid; ehm: dicono che chi ha avuto
avuto
mh anyway, I di=had covid; ehm: they say that if you had
- 2 il covid ne basta uno so*lo, (.)tutte bal*+le? eh: (xxx xxx)+
covid just one shot's enough, (.) is that bullshit? eh: (xxx xxx)
- marcella *shakes her head*
+nods-----+

- 3 MARICA era ↑una leggenda metropo#litana; (.) eh; (.)#
that was ↑an urban legend; (.) right; (.)
marcella #nods-----#
- 4 MARICA peccato.
too bad.
- 5 (0.16)
- 6 MARCELLA questa se l'è inventata proprio così;
she made it up entirely;
- 7 (0.33)
- 8 MARICA ((coughs)) ↑io. (-) ↑no:; ↑giu:ro; (.) l'ho sentita da
qualche
((coughs)) ↑me. (-) ↑no:; I ↑swe:ar; (.) I heard that somewhere;
- 9 parte; qualcuno l'ha detto. me l'ha detto anche la:
bianchi.
somebody said that.= also professor bianchi told me.
- 10 CAROLA ah sì?
oh really?
- 11 MARICA sì,
yes,
- 12 (0.98)
- 13 quando io mi son scu↑sata; le ho detto guardi io oggi
when I apo↑logized (to the professor for being sick in class); I told her
look today
- 14 sono, come se non ci <<laughing> fossi,
I am as if <<laughing>> I were not here,>

As evidenced by the multimodal transcription in l. 2,¹⁵ Marcella initiates repair by shaking her head as a sign of disapproval. Marica then backs off to take a K-stance. She produces two candidate self-repairs, confirmed by Marcella's nodding her head, which simultaneously deny the truth of p and the reliability of her hearsay experience, while maintaining the idea of having heard a discourse containing p: the labels *balle* ('bullshit', 'lies') and *leggenda metropolitana* ('urban legend') both refer to (untrue) discourses. This phase of the repair is concluded by an assessment by Marica at l. 4 that seems to signal reluctant acceptance. The sequence however had unfolded in a playful way (Marica producing vocal discourse and Marcella head gestures only) and Marica's giving in completely appears to be somewhat exaggerated, suggesting a share of irony. This interpretation is consistent with Marcella's

15 The multimodal transcription uses Mondada's (2018) conventions.

next move at l. 6, which hyperbolically (and using a strong device of distancing, which is the use of the third person singular to refer to the interlocutor) accuses Marica of having no information sources at all – a rhetorical climax after the two preceding denials by Marica.

This climax triggers a change of tone from l. 8 onwards, as Marica starts to contradict Marcella and defend her standpoint, confirming that she did not really mean to disclaim p. In this second phase of the repair, Marica specifies relevant components of the hearsay frame. She encodes three progressively more specific hearsay strategies: *l'ho sentita da qualche parte* ('I heard that somewhere': S₀ has experienced a specific speech event in the past); *qualcuno l'ha detto* ('somebody said that': a specific S_i was involved); *me l'ha detto anche la bianchi* ('also Bianchi told me': S_i is professor Bianchi). These foreground Marica's own experience of the hearsay and eventually reduce the indeterminacy of S_i, who turns out to be a professor of Marica's and Carola's classes and apparently is granted some basic trust as an academic authority. Failing to have p accepted (l. 10–11), Marica expands her telling of the circumstances in which the report was produced: she refers to a conversation she had with that professor the day after her first dose of the vaccine, when she was not feeling well enough to pay attention in class. Her narrative, which includes her own direct reported speech, underlines the social and affective relation of familiarity and trust between Marica and the professor; the factuality of the event and Marica's detailed memory of it, defeating the accusation of having made things up (cf. Clift 2006, who analyzes direct reported speech in interaction as implying the speaker's participation in an event). All aspects potentially contribute to presenting the interaction with Professor Bianchi as a reliable source. They add up to the repeated expressions of personal involvement and assertiveness in l. 8 and 9 to stress Marica's personal commitment to p against Marcella's doubts, in strong contrast to the generic and impersonal initial formulation *dicono che*.

The excerpts discussed in this section further corroborate the observations made in 3.7.2, showing how details about different semantic parameters of hearsay boost the justificatory function of this type of information source and help strengthen the speaker's K+ stance. The hearsay frame components that speakers add during repair regard, on the one hand, the identity of S_i and properties of S_i that enhance their authority to tell the truth about the matter p, e.g. as a direct witness or – more often, in our data – as an expert of some sort. On the other hand, speakers narrate in detail the event during which they learnt about p, in ways that suggest the factuality of the event, the experiencer's correct and precise uptake of others' discourse and the experiencer's good memory of it. All mentioned frame components contribute to presenting the experience as a reliable source.

role. The prosodically marked repetition *dicono* ('they SAY') and the addition of the comment clause *non lo so io poi* ('I don't know really') repair and cancel these implications. Stressing the evidential strategy *dicono* highlights the indeterminacy of the source, and Marianna's reluctance to specify it further. Any implicature that she might know something more about S_i , or that she might have been directly involved in the speech event, is canceled. In so doing, Marianna refrains from presenting herself as responsible for the information and disclaims epistemic primacy regarding this specific aspect of the fruit, before re-establishing a K+ stance in the following question-answer sequence (lines 6–7).

Against the background of the data discussed in the previous sections, disclaimers like the one just illustrated appear to serve an opposite goal compared to specifying repairs (3.7.3). While details about hearsay sources sustain a speaker's knowledge claims, signaling a hearsay source without providing details reduces the certainty of p (compared to a formulation without any evidential qualification) and lowers the speaker's position on the knowledge scale.

3.8 Conclusions

In this paper, we presented a frame-based and interactional approach to the functional category of information source and applied it to the study of hearsay in a corpus of dinner and lunch table conversations in Italian.

We described information source as a cluster of multiple parameters (components and their attributes) related to each other within a frame structure. When describing a language such as Italian, which lacks a paradigm of evidential markers, this theoretical choice allows for a fine-grained description of various patterns of evidential encoding, which partition the semantic space of information source without obeying any constraints imposed by grammar. Our analysis of a set of 126 hearsay constructions showed how components of hearsay frames can be verbalized with precision, referred to rather vaguely, and also be left completely unspecified. Among the more specific evidential means, we mainly find constructions with verbs, especially *dire* ('say'). These are particularly frequent, have temporal and aspectual properties, and their argument structure allows one to specify event participants (S_0 , S_i). Therefore, they are suited to encode a hearsay frame with a fair amount of detail and to actualize various combinations of parameters. More grammaticalized or lexicalized strategies are less specific and less flexible. Similarly to fully grammaticalized evidential morphemes, especially in languages with simple two-fold systems, they may even neutralize quite basic semantic distinctions such as the difference between hearsay and inference ('indirect' evidence).

The semantic variation attested in the corpus raises the question of its pragmatic significance, which we investigated through the lens of repair practices. Participants use repair to repeat, correct and specify hearsay components as part of their epistemic stance-taking, exhibiting semantic and functional contrasts that are relevant to them and therefore constitute important data in a context-sensitive and participant-centered perspective on meaning. When repair targets previous formulations of *p* lacking evidential indications (3.7.2), the addition of a hearsay source usually has the effect of maintaining the epistemic primacy claimed by the speaker. Especially when details of the experience are specified, hearsay tends not to achieve an effect of distancing or downgrading. In sequences where hearsay is present both in the repairable and in the repairing segment (3.7.3), we compared the semantic structure of frames evoked by successive formulations. It emerged that speakers progressively fine-tune their references to frame components, an important function being to present the source as a reliable one and, again, maintain a K+ stance. Finally, we discussed the rarer case in which participants perform repair by disclaiming knowledge and remembering, with the effect of lowering their epistemic authority (3.7.4). The disclaimers seem to target and cancel the implicatures of speaker involvement, accuracy of reporting, precision of memory, and expertise of *S_i* activated by previous references to a hearsay frame.

Across the strands of our analysis, two features of hearsay frames have emerged as particularly relevant: the identity and properties of *S_i* and the involvement of *S₀* as an experiencer in the reported speech event. Participants clearly orient to these aspects, since they are frequently encoded explicitly and often become the object of repair. At a theoretical level, the prominence of the experiencer parameter is well accounted for by the frame-based conception of information source we adhered to in this paper, which models the category as an experience of knowledge acquisition. It also entails that in hearsay not only the ‘other’ (*S_i*), but also the ‘self’ (*S₀*) are important, a semantic affinity with inferential sources that might not have received sufficient attention in existing accounts of indirect knowledge.

Given the maintenance of a K+ stance that we observe generally in our collection of repairs, a probable pragmatic reason for speakers to foreground both the properties of *S_i* and the involvement of *S₀* is that precise reference to *S_i* and claiming *S₀*’s direct access to *S_i*’s discourse contribute to presenting the hearsay source as reliable. The details in question indeed allow participants to assess several critical aspects such as the position to know of *S_i* as an expert or witness, but also *S₀*’s good memory and understanding, which can be expected to influence the accuracy of the report. Inversely, markedly generic, or lacking, reference to *S_i* and to *S₀*’s involvement appears to diminish the speaker’s epistemic primacy.

Our findings are compatible with an argumentative view on evidentiality, which foregrounds the justificatory function of evidential constructions (cf. Section

3.2.2). At first sight, they contradict existing research about grammaticalized evidentiality that underlines the hedging function of hearsay markers. We can think of two possible explanations for this apparent divergence. First, grammaticalized hearsay evidentials merely provide generic information about the hearsay event, in line with the propensity of grammar to encode abstract and/or generic meaning. If there is a relation between the justificatory potential of an evidential construction and the construction's degree of specificity, possibly grammaticalization processes drive hearsay markers in the direction of hedging; in contrast, lexical constructions like the ones we examined in our study, which have more specific content, could be more suitable to signal reliable sources for precisely that reason. A second possible explanation lies in the methodological differences between our study, which included sequential analysis, and classical corpus-linguistic investigations, which consider quite short windows of context, or even research based on decontextualized invented examples. Evidential constructions regarding a given proposition may spread over several utterances (also see Battaglia in preparation) and indicators of K+ stance emerge from the sequential unfolding of talk-in-interaction. A narrow focus risks missing information and may be blind to certain phenomena we showed in our analysis.

In conclusion, we would like to emphasize that linguistic research on information source and interactional research on the sequential and epistemic organization of talk benefit from engaging in mutual dialogue. It is by exploring conversational data that the interplay between variation in formal encoding, semantic values, and pragmatic functions comes to light. Our findings also call for further empirical investigation. For example, our observations on hearsay sources could be developed to hypothesize more generally a critical role of evidential specificity to claim reliable sources and epistemic primacy, an idea that could have implications also regarding processes of grammaticalization. We believe this avenue of research is worth pursuing further, examining larger and more variegated datasets across languages.

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4 Considerations for the analysis of indirect evidentiality in Udmurt

Abstract: The paper discusses how the use and interpretation of the morphological indirect evidential in Udmurt (Uralic, Permic) is affected by epistemic categories other than evidentiality. The goal of the paper is to explore the reasons why a piece of information can be marked by the indirect evidential besides the specification of information source. The analysis shows that the following factors have a decisive role in the use and interpretation of indirect evidential forms in addition to the type of source of information: 1) assimilated and non-assimilated status of information; 2) reliability of information; and 3) the speaker's epistemic authority. By taking these factors into consideration in the analysis of evidential markers, the motivation behind "non-canonical" uses can be explained more consistently.

Keywords: indirect evidentiality, mirativity, reliability, epistemic authority, Udmurt language, second past tense

4.1 Introduction

The paper discusses how the use and interpretation of the Udmurt morphological indirect evidential (also known as second past tense) is shaped by epistemic categories other than evidentiality. The term indirect evidential is used in the paper to denote a marker that refers to events or state of affairs that the speaker did not witness or experience.¹

¹ Synonymous terms in the literature are *non-eyewitness evidential*, *non-firsthand evidential*, *mediative* and *indirective* (cf. Aikhenvald 2004:394).

Acknowledgements: The research of Udmurt evidentiality was funded by the National Research, Development and Innovation Office, Hungary – NKFIH, "Evidentiality in Uralic languages" (K139298, 2021–2024).

Research for some aspects of the study were supported by the ÚNKP 23-4-SZTE-126 New National Excellence Program of the Hungarian Ministry for Culture and Innovation from the source of the National Research, Development and Innovation Fund.

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Udmurt is a Uralic language, part of the Permic subgroup in the Finno-Ugric branch. It is spoken in the Russian Federation, primarily in the territory of the Udmurt Republic and neighboring areas. The ethnic population is cc. 380 000, and the number of speakers is cc. 267 000, which is approximately 70% of the ethnicity (Rosstat 2020). Udmurt is an endangered language, and a continuous decrease can be observed in the number of speakers, who are Udmurt-Russian bilinguals. Udmurt is a member of the Volga-Kama linguistic area, which comprises Uralic (Komi, Mari, Mordvin) and Turkic (Tatar, Chuvash, Bashkir) languages (Bereczki 1998; Helinski 2003).

The Udmurt marker under discussion forms a past tense paradigm (called the second past tense in the descriptive literature of Udmurt) and it is associated with the expression of indirect evidence types, which usually means inferred or reported information,² or, more generally, information acquired without having firsthand experience about the events in question (Leinonen and Vilkuna 2000; Siegl 2004; Kubitsch 2022). The paradigm is also frequently characterized as a non-eyewitness past tense. In example (1),³ the utterer did not witness the event (Ilya throwing a pebble), they either saw the result of the action (damage on the car), or learnt the information from someone else.⁴

- (1) *iĭa tolon kəĭ-jen=a mar=a lez-em maĭina-je*
 Ilya yesterday pebble-INS=Q what=Q **throw-pst2[3sg]** car-poss.1sg
 ‘Yesterday, they say/apparently, Ilya threw a pebble or something at my car.’
 (udmurto4ka.blogspot.ru, 06/05/2014; last accessed: 25/11/2024)

However, besides the information source, other factors affect the use and interpretation of these so-called second past tense forms in discourse. The notions to be explored in the paper are the following:

1. the assimilated and non-assimilated status of information,
2. the reliability of information in a given speech situation and
3. the speaker’s epistemic authority.

² There are evidential systems in which non-visual sensory information is also marked as indirect (Aikhenvald 2004:64–65). In Udmurt, visual and non-visual sensory evidence types are not regarded as indirect evidence.

³ Since different functions and interpretations are presented in the paper, I choose to gloss the forms under discussion as pst2 (second past tense) and not according to their current function (such as evidential, mirative, etc.).

⁴ Where it is possible, in the English translation of the examples, I use expressions which convey similar meanings to that of the indirect evidential forms for the sake of easier understanding.

A piece of information can be marked with the indirect evidential if it is non-assimilated or less reliable, while if it is considered reliable, or common, i.e., assimilated information, it will not be marked for indirect evidence even though the actual information source was not direct experience. Furthermore, indirect evidential forms can disclaim the speaker's epistemic authority (cf. Bergqvist and Grzech 2023), as well as indicate non-shared knowledge between the discourse participants (cf. intersubjective distribution, Bergqvist and Knuchel 2019). It is also shown in the chapter that the forms that are the paradigmatic counterpart of indirect evidentials, which are neutral from an evidential point of view, tend to have interpretations systemically opposing that of the indirect evidential forms (see examples (6), (10) and (13)). Some of the above-mentioned notions have already been described to a varying extent in the relevant literature on Udmurt (Serebrennikov 1960; Leinonen and Vilku 2000; Siegl 2004) but only as functions of the second past tense, while they should rather be regarded as organizing principles in the application and interpretation of the evidentially marked forms and, possibly, that of their evidentially neutral counterparts.

The goal of the paper is to characterize how the aforementioned factors (1. assimilated and non-assimilated status of information; 2. the reliability of information; 3. the speaker's epistemic authority) shape the use and interpretation of the indirect evidential in discourse. This way, we get a better understanding not only about *what* an indirect evidential marker can do but also *why* a piece of information is marked in a given speech situation and not in another. The observations confirm that the choice for the indirect evidential roots in the speaker's way of situating their knowledge against that of the other speech act participants' and their respective position to the event in question (Bergqvist and Grzech 2023:24). Thus, the choices and interpretations that differ from the ones expected according to an analysis in terms of the source of information can be explained (Sun 2018:58, Mushin 2001:53–55).

The chapter is organized as follows: Section 4.2 gives a general overview of morphological evidentiality in Udmurt and discusses the context sensitivity of the indirect evidential marker. Section 4.3 presents the data used for the study and the background of the research. Section 4.4 considers the factors affecting the interpretation and use of indirect evidential forms other than the type of information source. Section 4.5 summarizes the results.

4.2 The morphological marking of evidentiality and the past tenses in Udmurt

In Udmurt, similarly to other languages in the Volga-Kama linguistic area (cf. Bereczki 1998), the morphological marking of evidentiality is possible only in the past tenses, and it is fused with the morphological marking of the past tenses.⁵ The variation in the evidential system is between past tenses semantically and functionally marked for indirect evidentiality, and past tenses which are unmarked from an evidential point of view. In this sense, evidentially-marked discourse is opposed to neutral discourse (cf. Lazard 2001:366).⁶ Marking evidentiality in Udmurt is not obligatory⁷ – we may instead speak about preferences in certain speech situations. It is the speaker's choice whether they mark their statement or not. However, this choice is affected by factors beyond the information source, and results in highly context sensitive patterns of interpretation (cf. Mithun 2020).

Since the morphological marking of evidentiality and morphological past tenses are intertwined, it is necessary to give a brief overview of the past tense system of Udmurt to understand its evidential system. The language has a complex past tense system consisting of two synthetic and a number of analytic past tenses.

Let us first consider the two synthetic past tenses. The first one, called the *first past tense* in most of the descriptive literature on Udmurt, is described as the default choice for narrating past events, and as neutral from an evidential point of view, meaning it does not reflect on the source of information (Leinonen and Vilkuna 2000; Kubitsch 2023). Morphologically, it is encoded by the marker *-i*, which has Proto-Finno-Ugric origins (Bartens 2000:190–191). The second synthetic past tense is considered evidentially marked from a semantic-functional point of view, and it is used to signal indirect information sources. This tense is called the *second past tense* and it is morphologically marked by *-m*, which originates from the marker of the perfect participle (Bartens 2000:202–203). The Udmurt synthetic past tenses have also been described in terms of eyewitness and non-eyewitness opposition, primarily in Soviet and Russian descriptive grammars (e.g., GSUJa 1962; Teplashina and Lytkin 1976; Tarakanov 2011), but recent studies focusing specifically on the past tenses and evidentiality confirmed that postulating such

⁵ With the exception of Mordvin, which does not have grammatical evidentiality.

⁶ Lazard (1999:98) calls these markers *mediatives* and the corresponding category *mediativity*. Other terms, *indirectives* and *indirectivity*, are also used by Johanson (2003:61–62) in connection with Turkic languages to describe such markers and the category, respectively.

⁷ In fact, obligatory marking is hardly conceivable in languages where the evidentially marked form is in contrast to an evidentially unmarked one. Nevertheless, typology often lists obligatoriness as a criterion of grammatical evidentiality (cf. Aikhenvald 2004:10).

an opposition simplifies the relationship between the past tenses (Leinonen and Vilkkuna 2000; Szabó 2020; Kubitsch 2023). It is not the aim of the current study to elaborate on this relationship. Nevertheless, it is analytically meaningful to contrast the situated use of indirect evidential forms (both in the synthetic and analytic past tenses) with their evidentially unmarked counterparts.

Considering the analytic past tenses, these are generally built up from a verb form of one of the synthetic tenses (present, first past tense, second past tense and future) and one of the past tense forms of the verb ‘be’. The form of the verb ‘be’ is either *val* (the first, i.e., evidentially unmarked past tense), or *vilem* (third person singular form of the second, i.e., evidentially marked past tense). Table 1 gives an overview of the past tense system of Udmurt.

Table 1: The past tense system of Udmurt (based on Kelmakov and Hännikäinen 1999:244–246; Kozmács 2002:86; Tarakanov 2011:195–201 and Saraheimo 2022:199–200).⁸

Past tense	Form	Function
First past	PST1	default past tense evidentially unmarked
Second past	PST2	non-witnessed past tense evidentially marked
First remote past	PST1 + <i>val</i>	pluperfect, general remote past future counter-factuality evidentially unmarked
Second remote past		pluperfect, general remote past
	PST2 + <i>val</i>	evidentially unmarked
	PST2 + <i>vilem</i>	evidentially marked
Durative past		antecedent, frame of an already ongoing event
	PRS + <i>val</i>	evidentially unmarked
	PRS + <i>vilem</i>	evidentially marked
Frequentative past		regular activity in the past
	FUT + <i>val</i>	evidentially unmarked
	FUT + <i>vilem</i>	evidentially marked

⁸ For the second remote past tenses, the construction PST2 + *val* appears in textbooks and descriptive works (Kelmakov – Hännikäinen 1999; Kozmács 2002; Bartens 2000), it is debatable whether it should be treated as a tense. These forms are extremely rare and they could be a regional variant (Saraheimo 2022:170). In my experience, native speakers regarded this construction strange or incorrect.

Similarly to the synthetic past tenses (Bartens 2000:208–209; Leinonen and Vilkkuna 2000:510; Saraheimo 2022:189), the difference between the analytic past tenses formed with *val* or *vilem* is traditionally described as being evidential in nature (see example (2) for the durative past tense).

- (2) a. *perec kifnomurt otin ul-e val*
 old woman there **live-PRS.3SG be-PST1**
 ‘an old woman lived there’ (Bartens 2000:209)
- b. *perec kifnomurt otin ul-e vil-em*
 old woman there **live-PRS.3SG be-PST2[3SG]**
 ‘they say/apparently, an old woman lived there’ (modified by the author)

Considering that the relationship between the synthetic past tenses is more complex than descriptive works suggest, a similar level of complexity can be assumed for the analytic past tenses from an epistemic point of view.⁹ However, the various functions of the analytic past tenses are still under investigation in Udmurt linguistics, and we still have little knowledge about their actual use in discourse (although there is recent research on the topic e.g., Georgieva 2018; Saraheimo 2022).

As mentioned before, the conventional readings of the second past tense and the analytic past tenses formed with *vilem*¹⁰ have an evidential component (cf. examples (1) and (2b)). However, other interpretations are also possible, depending on the context. This context-sensitivity can be clearly seen if we ask native speakers to interpret decontextualized instances of second past tense forms. The sentence under discussion is in example (3).¹¹

- (3) *tun:e gurt-in til-ez kisi-Ķ:am*
 today village-INE electricity-ACC **switch_off-PST2[3PL]**
 ‘Today they switched off the electricity in the village.’
 (udmurto4ka.blogspot.com, 16/01/2015, last accessed: 20/08/2024)

⁹ In addition, both tense forms of the verb ‘be’ have several non-temporal uses and they seem to have developed discourse-interactional functions in the analytic past tenses (Saraheimo and Kubitsch 2023).

¹⁰ In the study, the terms *second past tense forms* and *indirect evidential forms* include both synthetic second past tense forms as well as analytic past tense forms formed with the second past tense form of the verb ‘be’ (*vilem*). Similarly, the terms *first past tense forms* and *evidentially unmarked forms* are used to refer to both synthetic first past tense forms and to the analytic past tenses formed with the first past tense form of the verb ‘be’ (*val*).

¹¹ The original blog entry did not contain the word *gurtin* ‘in the village’. It was added by the author of the study during the elicitation sessions.

An obvious interpretation for the second past tense form is that it expresses indirect evidence. This interpretation is plausible in speech situations when the speaker has hearsay information about the electricity having been switched off, or it can be their own inference, for example, trying to switch the light on, or seeing that there is no electricity in the neighboring houses either. Another possible interpretation is connected to mirativity, meaning that the second past tense form indicates realization as well as that this piece of information does not correlate with their previous expectations, or that it was surprising, in the case that the outage was not prescheduled. A third type of interpretation is that the second past tense shows that the speaker does not know the circumstances of the event very well – they do not know who switched the electricity off or why it was switched off. Such semantics are connected to epistemic modality. Naturally, these interpretations are not independent from each other – one can try to switch the light on at home and realize that there is no electricity, or one can have restricted knowledge about the circumstances for the outage, for example, because they only have knowledge based on hearsay.

However, the interpretations presented above in connection with example (3) are not equally plausible as even in decontextualized instances, there were some tendencies among the consultants in the interpretation of second past tense forms. The question is why one interpretation is more favorable than another in a given context. Answering it can tell us about the factors that play a role in choosing second past tense forms. As suggested by example (3) above, these forms can have various uses and interpretations besides marking the information source. These uses are not strictly evidential but are frequently associated with evidential markers in the languages of the world, and they are also linked to other epistemic categories such as mirativity or epistemic modality. Moreover, first past tense forms, even though their conventionalized meaning is neutral from an evidential point of view and can be considered a default past tense, also have interpretations opposing to that of the second past tense forms.

4.3 Research material and background

The claims made in this paper are rooted in larger research carried out by the author (cf. Kubitsch 2023). This research focuses on the interpretation and structural properties of second past tense forms as well as on their relationship with the first past tense. The material and results of this larger study serve as a starting point for the observations presented in the following sections.

Research material includes three types of data: written texts, elicitation sessions with native speakers and linguistic data collected through a questionnaire.

The three different types of data collection build on each other in terms of content. In addition, data collected using the online Udmurt corpora¹² (Arkhangelskiy 2019) were also used. The amount and variety of data enable us to have a more accurate understanding of the use and functions of the second past tense and Udmurt evidentiality.

Text analyses were the first phase of the research, and it enabled us to identify the functions of the second past tense in context using contemporary linguistic material:¹³ the text material includes three hundred blog posts in Udmurt, containing a total of 86,571 words.

Another segment of the research material is 27 elicitation sessions, which were conducted and recorded by the author in the spring of 2019 and 2020 in the Udmurt Republic. During the sessions, consultants were given 35 sentences in Udmurt written on a piece of paper containing past tense forms without any broader context. Both the first and second past tense occurred in the sentences, but the latter was strongly predominant. The sentences, with two exceptions, were authentic, taken from blogs and the press, and, in some cases, have been slightly modified for the sake of transparency. The metalanguage of the sessions was Udmurt.

First, the consultants read the sentences aloud and they were asked to provide a possible speech situation in which they thought each sentence would be appropriate. No other instructions were given in connection with the sentences, but consultants were allowed to contemplate them and elaborate the speech situation in their own way. The aim was to determine how the speakers interpreted the sentences containing past tense forms, the meanings and range of uses they associate with the second past tense. Occasionally, additional clarifying questions were asked by the interviewer, such as *Do you think the person uttering the sentence was surprised? Do you think the person asking this question is expecting an answer? How do you think the person knows this piece of information?*

After discussing a possible speech situation, in several cases, the consultants continued to work with a version of the sentence that the interviewer had modified, most often the second past tense verb form having been replaced with its first past tense counterpart. The modified sentences were read aloud by the interviewer and consultants were asked to state whether and in what way the meaning of the

¹² The Udmurt corpora (Arkhangelskiy 2019) consist of a main corpus and two sub-corpora. The main corpus, which comprises mostly press and blog texts and the Udmurt translation of the New Testament, contains 9.57 million tokens. One sub-corpus consists of social media entries with 2.66 million Udmurt-language tokens, the other sub-corpus mostly represents dialectal varieties with 11.000 text words and additional audio materials. For the study, entries of the main corpus and the social media subcorpus were used.

¹³ For the individual results of these analyses, see Kubitsch (2022).

sentence or the speech situation had changed. This way of working proved to be fruitful to discover new ranges of use and differences between the past tenses, and also to include aspects of the context by enabling native speakers to articulate *their* interpretation (which turned out to be more varying than the ones discussed in descriptive works) and not only having them validate the ones we expect based on our knowledge about Udmurt and evidentiality in general.

Finally, the questionnaire was conducted online between December 2019 and February 2020. Similarly to the elicitation sessions, the questionnaire included sentence evaluation tasks. It was designed on the basis of previously completed sessions, and the response options tested the different aspects that these sessions had revealed.

The questionnaire consisted of four parts. Here, I only discuss the parts relevant from the point of view of the paper.¹⁴ In these parts, speakers had to choose statements related to a given sentence and rate the truth value of the statement on a scale from 1 to 6. More than one answer could be selected at a time. Each sentence appeared twice – their corresponding statements were identical, the only differences were in the order of presentation and tense (first or second past tense).¹⁵ These statements were primarily connected to the domains of information source, informativity and reliability. A total of 76 respondents completed the anonymous questionnaire. Example (4) below shows an entry from the questionnaire translated to English.

(4) Today they switched off [pst2] electricity in the village.

1. What do you think, how does the person saying this sentence know that electricity was switched off?
 - 1) (S)he knows well why electricity was switched off.
 - 2) (S)he heard from someone else and now is telling it himself/herself.
 - 3) (S)he tried to turn on the light at home, but there was no electricity.
 - 4) (S)he does not know well why electricity was switched off.
 - 5) Other: (free answer)

¹⁴ The questionnaire also surveyed some structural properties of the second past tense as well as its combination with other modal operators. These properties are not discussed in this paper.

¹⁵ The sentences appeared in a “mixed” order, that is, in the first half of the questionnaire speakers at first saw the first past variant of some sentences, and the second past version of others. This way, it was possible that they evaluate the first past tense not only in connection to the second past tense.

2. Did the person saying this sentence know in advance that electricity would be switched off?
- 1) Yes, (s)he knew it in advance.
 - 2) No, (s)he has just realized there is no electricity.
 - 3) (S)he did not know, and (s)he is now slightly surprised.
 - 4) We do not know from this sentence if (s)he knew in advance that electricity would be switched off.
 - 5) It is irrelevant whether (s)he knew in advance that electricity would be switched off, (s)he is merely telling a fact known to everyone.
 - 6) Other:
3. In your opinion, does the person saying this sentence think that electricity has really been switched off?

does not think so						thinks so
1	2	3	4	5	6	

Finally, the Udmurt corpora were used to look up second person second past tense forms. These forms were not under scrutiny during the elicitation sessions or in the questionnaire, and the examined texts of blogs only contained two instances of them. Nevertheless, second person forms give us important insights if we wish to discover the use of second past tense forms in interaction (cf. Kubitsch 2024).

4.4 Factors affecting the use and interpretation of the indirect evidential

This section discusses the factors that have an effect on the use and interpretation of indirect evidential forms besides the type of information source. These factors do not only affect the meaning but also the felicity of indirect evidential forms. These are connected to the knowledge status of the discourse participants and their evaluation of the information in question.

4.4.1 Assimilated and non-assimilated information

Non-assimilated information is connected to mirativity, which is frequently defined as the semantic category of new, unexpected or surprising information (DeLancey 1997:33), and it can be encoded in languages as a grammatical category (DeLancey 2012:533). Surprise has been considered to be the core semantic component of mira-

tivity for a long time, but nowadays the category is rather viewed as signaling new or non-assimilated information (Bergqvist and Kittilä 2020:2). In many languages, mirativity is semantically and pragmatically related to evidentiality (Peterson 2010:132) and markers of indirect evidence often express mirativity as well (DeLancey 2001:378).

Udmurt indirect evidential forms are used to mark non-assimilated, new or even surprising and unexpected information, and this can overrule the specification warranted by the information source. New, non-assimilated information in the discourse can be morphologically marked as having been acquired through indirect means regardless of the actual source of information. In this regard, it is primarily the speaker's point of view that is relevant, but there are instances that suggest that the point of view of other discourse participants can also be taken into account when choosing between the evidentially marked and unmarked form. Furthermore, the choice may depend on whether the information is (or is assumed to be) assimilated or non-assimilated in the broader context; in other words, whether it is shared or unshared between the discourse participants. The latter notion is connected to intersubjectivity (see examples (8) and (9)).

This mirative use of the second past tense is described in the literature of Udmurt, and it was mentioned in the very early grammatical description of the past tenses (Serebrennikov 1960). Whether the state of affairs has just been realized by the speaker and whether the information is a novelty have a prominent role in the interpretation and use of indirect evidential forms.¹⁶ Furthermore, the expression of mirative notions is not necessarily an extension beside expressing indirect evidence – there are speech situations when only the mirative interpretation is felicitous. This can clearly be observed when the information source is obviously direct (i.e., the speaker has visual evidence, or direct, personal experience). This also means that having a direct information source (in these cases, derived from the presence of the speaker) does not exclude the use of the indirect evidential, although its interpretation changes. In example (5), the speaker is clearly a participant of the situation, which is also confirmed by the first-person plural form of the verb *vuim* 'we arrived'. The second past tense form of the verb 'be', *vilem*, appears specifically to mark the newly acquired information,¹⁷ which is the distance of the dormitory from the university. The speaker only realized that the dormitory

16 In "small" evidential systems (i.e., systems with two choices), it is typologically common that the marker of indirect evidence also has a mirative connotation (Aikhenvald 2012:465).

17 It is also noteworthy that the indirect evidential form of the 'be' verb, especially the third person singular, positive form (*vilem*), has a significant role in expressing non-assimilated information. The grammatical descriptions that mention the mirative function often consider only *vilem* to be capable of conveying realization (see Serebrennikov 1960; Winkler 2001). This observation is not true, though, as other second past tense forms can have this interpretation, too. Nevertheless, dur-

was quite far from the university when they arrived there. They expected it to be closer, which can cause surprise, too. Other linguistic elements also support the interpretation that the information has not been assimilated so far, such as the *ik* emphatic particle and the *-ges* derivational suffix, which can also have an intensifying meaning in addition to forming the comparative.

- (5) *nu, jaram, kizi ke ozi vu-i-m obc:ezit'ije dor-i*
 PTC PTC how if so arrive-PST1-1PL dormitory side-ILL
(kyjokin-ges ik vil-em un'iv'ersit'et-leε).
 far-INTS PTC **be-pst2[3SG]** university-ABL
 'So, all right, somehow, we arrived at the dormitory (it turned out, it was quite far from the university).
 (tubat.blogspot.ru, 28/08/2014, last accessed: 06/01/2020)

Contrasting this type of use of the first and second past tense forms (see example (6)), we can see that the latter can be associated with assimilated information.

- (6) *nu, jaram, kizi ke ozi vu-i-m obc:ezit'ije dor-i*
 PTC PTC how if so arrive-PST1-1PL dormitory side-ILL
(kyjokin-ges ik val un'iv'ersit'et-leε).
 far-INTS PTC **be.pst1** university-ABL
 'So, all right, somehow, we arrived at the dormitory (it was quite far from the university).'
 (modified example)

When native speaker consultants were asked in the elicitation sessions about the differences between the sentences seen in example (5) and (6) and about the situations these utterances may occur in, 55% of the answers suggested differences in terms of novelty and realization. This pair of sentences also appeared in the questionnaire and the results confirm the findings of the elicitation sessions. First past tense forms were rather associated with information corresponding to expectations and with factuality, and second past tense forms – with the novelty of the information.¹⁸

ing the sessions with the consultants, speech situations connected to non-assimilated information, realization or surprise were provided more frequently if the form *vilem* appeared in the sentence.
 18 The values in the figures will not add up to 100% as a single consultant could mark more than one option for the interpretation of past tense forms.

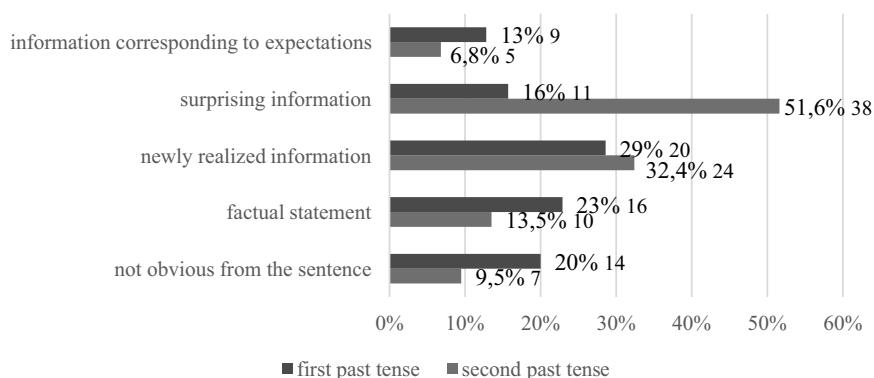


Figure 1: Proportion of answers in the questionnaire to the sentences in examples (5) and (6) in terms of information status.

Even though the mirative interpretation of indirect evidential forms is prevailing if the source of information is direct, it is important to note that it does not only occur in such cases. Example (7) is a claim about old people and their wisdom. According to the original context, poplars were planted around the village because the elders were afraid of fire and poplars do not burn up so quickly. The original speaker, who is a young woman, receives this piece of information from her grandmother and based on this, she claims what can be seen in example (7).

- (7) *vizmo-jec ik so vaʃkala-os vili-ʃam.*
 smart-ADJ.PL PTC that old-PL **be-PST2[3PL]**
 ‘It turned out, these old ones were smart.’

(udmurto4ka.blogspot.com, 19/01/2015; last accessed: 20/08/2024)

Considering the original context, this instance could rather be considered inference based on reported information. Nevertheless, the mirative overtone can also be postulated as the speaker has just realized the wisdom of the elders. However, when native speakers were presented with the decontextualized sentence, the mirative interpretation prevailed. In the elicitation sessions, when the consultants had to characterize the differences between the sentence in example (7) and its counterpart containing the first past tense verb form, 33% of the answers revealed differences in terms of information status, meaning that the second past tense form conveys non-assimilated information, meanwhile the first past tense form shows assimilated information. According to this, the second past tense form is applicable if the speaker is amazed by the intelligence of the elders or it is a novelty to them, while the first past tense form indicates that this is a factual statement, a piece of information that was already known to the speaker. However, it is important to

note that in the example above the information source is again fairly obvious even without a broader context – the word *va/kala* ‘old, ancient’ presupposes that the discussion is not about simply older people, and the distal pronoun *so* ‘that’ also distances the utterer from the subject.

Examples so far have considered whether the information is assimilated or non-assimilated from the point of view of the speaker. It can be observed, though, that the shared or unshared status of the information between the discourse participants can also affect the use and interpretation of second past tense forms. These forms can be used if the speaker shares a piece of information that is assumed to be a novelty or non-assimilated from the point of view of the other discourse participants. This is connected to the intersubjective distribution of knowledge (Bergqvist and Knuchel 2019). Example (8) is connected to the language use of Udmurt in different regions. The author and her colleague, who are both Udmurt bloggers, are at the radio station for an interview. The author compares her way of speaking Udmurt to one of her colleagues’. This colleague speaks Udmurt eloquently, which the author finds good, while the author speaks Udmurt slowly and in a faltering way. Then the author quotes the interviewer, who makes a comment about language use in a village near the place where the interviewer is from.

- (8) *kibaryina fu-e: “uso pal-jos no taf-taf udmurt eamen*
 Kibardina say-PRS.3SG Uso side-PL too tight Udmurt PP
veraċko vil-em. mi pal-jos kaj”
speak-PRS.PL3 be-PST2[3SG] we side-PL as
 ‘Kibardina says: Around Uso they actually speak only in Udmurt, too. Just like us.’”
 (udmurto4ka.blogspot.com, 25/09/2013, last accessed: 20/08/2024)

This piece of information is a direct quotation of the interviewer. It is introduced by a verb of speech, *fu* ‘says’. It is also marked typographically with a colon sign. The pronoun *mi* ‘we’ refers to Kibardina and people coming from the same region as her. This means that the utterance is constructed from the point of view of the quoted speaker: they are the deictic center. Here, the construction *veraċko vilem* comprises the present tense third plural form of the verb ‘speak’ (*veraċko*) and the second past tense form of the ‘be’ verb (*vilem*). Without any context, such constructions can have two interpretations: they can be interpreted as a durative past (cf. Table 1 in Section 4.2), i.e., they spoke/used to speak this way, or, they can be interpreted as a present tense form verb referring to the current state of affairs with *vilem* marking the novelty or realization of the information, i.e., they speak in this manner in the present and this is an information update. In the context of example (8), the latter interpretation is more plausible since we can postulate that this piece of information is not a novelty from the point of view of the quoted

speaker (Kibardina, the interviewer) as likely she knows how people speak around the village Uso, which is near her home village, but can be considered generally new in the discourse. The information can even be surprising to the audience, as the use of the Russian language and Russian code-switching in the Udmurt language use are quite typical. This means that second past tense forms can be used to reflect the information status of the other discourse participants, at least when discussing non-assimilated information.

The above-mentioned function of *vilem* has already been discussed to some extent by Saraheimo and Kubitsch (2023) but it is important to emphasize that not only the indirect evidential form of the ‘be’ verb can be used in this way. Consultations with native speakers revealed that other verbs in the second past tense can have this interpretation too. Example (9) discusses the death of the famous weapon engineer, Kalashnikov, who lived and worked in the Udmurt Republic. Considering that this is the death of a famous person, it is likely that the information source of an average speaker is indirect.

(9) *kalasɲnʲikov* *kul-em*.

Kalashnikov **die-PST2[3SG]**

‘Kalashnikov has died.’

(marjamoll.blogspot.ru blog, 28/11/2023, last accessed: 31/03/2024)

When native speakers were asked to explain the differences between the example above and its counterpart using the first past tense, naturally they differentiated them alongside various factors (as no context was provided). Approximately 22% of the explanations claimed that there is a difference in terms of novelty, the assimilated nature of the information, and some explanations suggested that the second past tense form is preferred if we present this piece of information as news, something people presumably do not yet know about, meaning the information is unshared between the discourse participants. On the same note, the first past tense form is preferable when we speak about a piece of information that is already shared between the participants, or, in other words, common, factual knowledge. This shows that assimilated, already-known information does not need to be marked for indirect evidentiality even though the information source is indirect. Such differentiations also suggest that the way the speaker wants to present their knowledge in comparison to the knowledge of the other discourse participants affects the use of indirect evidential forms (or more broadly speaking, the use of the past tenses). Thus, such forms are also tools to express the intersubjective distribution of knowledge.

4.4.2 Reliability of information

Another notion that affects the interpretation and use of second past tense forms is the speaker's estimation about the reliability of the information. This is connected to the degree of certainty about the truth of the information, therefore, to the category of epistemic modality. According to Wiemer (2018:101–102), reliability is the mediating concept between evidentiality and epistemic modality, and the degree of reliability is at stake when certain epistemic overtones are associated with certain sources of information. Earlier works on the Udmurt past tenses and evidentiality do not contemplate their relationship with epistemic modality.¹⁹ The only exception is the work of Leinonen and Vilkuna (2000:497) who suggest that “both past tenses are possible, depending whether or not the speaker wishes to express confidence in the reliability of his information”. The research material confirms this and clearly shows that the past tense forms taking part in the morphological marking of the information source are implicitly related to the degree of certainty, the speaker's responsibility, and the reliability of the information (Kubitsch 2023). These correlations derive from the pragmatic relation between the source of evidence and its strength and reliability (cf. Givón 2001, 1:326; Boye 2012:130). If the speaker has indirect evidence, which is less strong based on the hierarchy of accessibility proposed by Givón (2001, 1:327–328), it may imply that they cannot take full responsibility for the truth-value of the information and thus the degree of certainty may be lower.

It is important to point out that the expression of less reliable information or doubt is not part of the semantics of second past tense forms. Nevertheless, statistics show that these forms imply a lower degree of certainty, especially if they are compared with first past tense forms. Figure 2 summarizes the results from the questionnaire in connection with epistemic certainty (cf. example (4) in Section 4.3). On the scale, value 6 means that according to the estimation of the respondent, the utterer of the sentence considers the propositional content true, while value 1 means that they do not. These results suggest that the degree of certainty is lower with a second past tense verb than with a first past tense verb.

¹⁹ Some works characterize the paradigm and its functions as modal (Serebrennikov 1960; Winkler 2001), but this is because of the concept the authors employ about the relationship between evidentiality and modality rather than because of the functions of the second past tense.

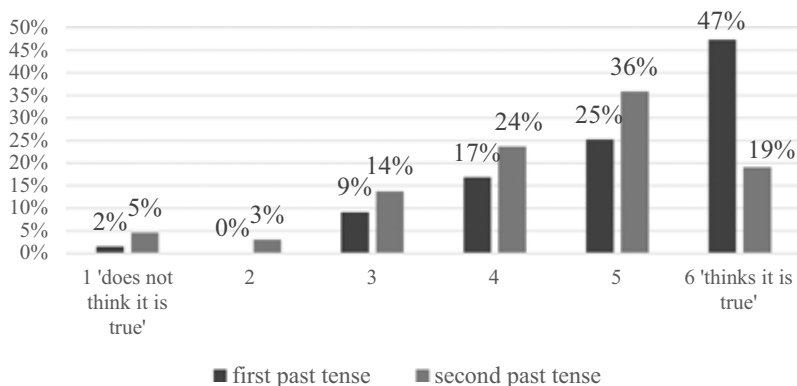


Figure 2: Evaluation of sentences from the point of view of epistemic certainty in the questionnaire (aggregated results).

The use of the second past tense forms suggests that a high degree of certainty can override the choice that would be warranted only by the type of evidence. If the speaker is confident about the truth of the proposition, if they want to present it as a factual statement, they do not need to use the second past tense forms, even though they do have an indirect information source. Example (10) is from the Udmurt Wikipedia site of a famous Udmurt poet from the last century, Flor Ivanovich Vasilyev. His biography is narrated in the first past tense. The first past tense is often the default choice for narrating events that happened in the past, but we also need to take into consideration that in this case, indirect evidential forms are not used because the information is presented as true, credible and factual, and this makes the actual information source obsolete.

- (10) *6-ti ijuł-e 1978-ti ar-in, ěures vil-in ki/kit*
 6-ORD July-ILL 1978-ORD year-INE road upper_part-INE terrible
uċĕir-e ţej-em bere, bol'n'iġsa-in infarkt-leċ
 event-ILL get_into-NMLZ after hospital-INE heart_attack-ABL
kul-i-z.

die-PST1-3SG

‘On 6th July 1978, after getting into a terrible road accident, he died of heart attack in the hospital.’

(https://udm.wikipedia.org/wiki/Васильев,_Флор_Иванович; last accessed: 11/08/2024)

Furthermore, considering example (9) above about the death of Kalashnikov, consultants did not only associate second past tense forms with the novelty of

information, but also with its reliability. According to these explanations, the piece of information (death of Kalashnikov) expressed using the second past tense is less reliable, and there is a “possible margin of error” when it comes to the truth. During discussions of this example in the elicitation sessions, 30% of the answers differentiated between the first and second past tense along these lines. For example, someone hearing about the death of Kalashnikov only from a friend or from their mother could use the second past tense in order to signal a lower degree of certainty as well as a lower degree of responsibility for such a claim at the same time. But if one knows it from the television or reading an official statement about this, they could present the information using the first past tense. This also shows that the information source is not always negligible when discussing the connection between indirect evidential forms and reliability, but the ranking of different sources for the information depends on the content itself, on the speaker’s subjective evaluation of the information source, as well as on how the speaker wants to present their knowledge. Nonetheless, the Udmurt results support Wiemer’s (2018:99–102) view that reliability plays a mediating role between evidentiality and epistemic modality – first and second past tense forms acquire interpretations connected to epistemic certainty when reliability is at stake. In the previous section, it was mentioned that second past tense forms are clearly interpreted as signaling non-assimilated information, or an information update if the information source is obviously direct. Interpretations of the second past tense connected to reliability, however, only appear when the information source is indirect. There were no such instances where the information source was clearly direct, yet, second past tense forms occurred to indicate a lower degree of certainty. This suggests that the interpretation of these forms is strongly connected to the indirectness of the information source (cf. Givón 2001, 1:326–328).

Similar considerations can be observed in example (11), which describes events that happened in the 1960s.

- (11) *60-ti ar-jos-i kolxoz-jos vorsa-eki-ni kutski-Ķ:am,*
 60-ORD year-PL-ILL kolkhoz-PL close-RFL-INF **begin-PST2[3PL]**
noġ gurt kalik muket az-e koġk-em.
 and village folk other area-ILL **leave-PST2[3SG]**
 ‘It is said, in the 60s, they started closing the kolkhoz and villagers left for other regions.’

(marjamoll.blogspot.ru, 03/08/2014; last accessed: 20/08/2024)

Most of the consultants claimed that indirect evidential forms here express that the utterer did not experience the events that happened in the 1960s. When it came to the differentiation between the indirect evidential and the evidentially neutral

past tense, 42% of the answers drew distinctions in terms of information source. However, another large proportion of answers, approximately 23%, stated that indirect evidential forms indicate that the speaker is not sure whether the events had happened exactly the way they were portrayed in the sentence, i.e., the information is not completely accurate or reliable. In comparison, evidentially unmarked forms can be used if the speaker either actually experienced these events, lived in the 1960s, believes that the information is true or, for example, they conducted research on the topic and make their claims based on this research. So far, we could see that the source of information, its novelty, and the speaker's evaluation about its reliability have a role in the use and interpretation of indirect evidential forms. Observations in connection with example (11) shed light on the fact that not only these notions, but also, in a broader sense, the speaker's relative right to claim knowledge are important. If someone conducted research on the topic or lived in the era, they have more right to speak about the events without the overt marking of their indirect information source. This is connected to the notion of epistemic authority, and will be discussed in the following section.

4.4.3 Epistemic authority and epistemic primacy of the speaker

Epistemic authority concerns the speaker's rights to knowledge, and their ownership of knowledge (Bergqvist and Grzech 2023:20). A strongly connected notion is epistemic primacy, which is the relative right to claim ownership of knowledge. Epistemic primacy is inherently relative and it depends on the knowledge status of the other discourse participants (Stivers, Mondada, and Steensig 2011:13–14). Also, epistemic authority is gradable as one may know more or less, but epistemic primacy is not – one either has it in a given speech situation or not (Grzech 2020:29). The two terms, although they are not entirely equivalent, are often used synonymously.

In connection with the Udmurt second past tense, it can be observed that highlighting the speaker's indirect evidence or presenting the information as inaccessible are tools for disclaiming the speaker's epistemic primacy or lowering the degree of their authority to claim ownership of knowledge.²⁰ Example (12) is an excerpt from an interview with an Udmurt writer. The sentence containing the second past tense form is glossed separately in (12b).²¹

²⁰ This aspect was not specifically examined in the research the study is based on, but the research material and the results were evaluated later on from this point of view, too.

²¹ The example is from 'Udmurt Dunne', which is the most popular and highly esteemed journal published in Udmurt.

- (12) a. Interviewer: *kileme vap: ton, rafit, jkolain difetskikud, l'leon'id il'itē br'ezn'evli no goztet istemed. val-a siſſe utēir? val ke, kizi dietid bad:zīm kivalentli vazickini?*
 Interviewee: «*moskva. kr'eml'. br'ezn'evu, podgornomu, kosig'inu*» – *ozi goztisa lezi val. vuiz-a so ofē:i, ug todicki.*
 Interviewer: 'I heard: you, Rashit, when you were studying at school, you even sent a letter to Leonid Ilyich Brezhnev. Did it really happen? If so, how did you have the courage to turn to the great leader.'
 Interviewee: "Moscow, Kremlin. To Brezhnev, Podgorny, Kosygin" – that is how I had sent it. Whether it arrived, I don't know.'
- b. *l'leon'id il'itē br'ezn'ev-li no goztet ist-em-ed.*
 Leonid Ilyich Brezhnev-DAT PTC letter **send-PST2-2SG**
 '[. . .]you even sent a letter to Leonid Ilyich Brezhnev.'
 (Main corpus, Udmurt Dunne, 07/09/2007, last accessed: 14/06/2024)

Here, the interviewer highlights that they have hearsay information with the *kileme vap* 'I heard' construction as well as with the use of the indirect evidential form *istemed* 'you sent'. It could be argued that the use of the indirect evidential form is motivated by the indirect evidence of the utterer, however, if we have a look at another part of the interview in example (13), we can see that the interviewer chose the evidentially neutral form, even though, factually speaking, their information source is still indirect. The sentence containing the first past tense form is glossed in (13b).

- (13) a. Interviewer: *dzutē kilin no kniga pefēatlad.*
 Interviewee: *ma, kitie ton vajze todickod?*
 Interviewer: 'You published a book in Russian, too.'
 Interviewee: 'What, how do you know everything?'
- b. *dzutē kil-in no kniga pefēatla-d.*
 Russian language-INS PTC book **publish[PST1]-2SG**
 'You published a book in Russian, too.'
 (Main corpus, Udmurt Dunne, 07/09/2007, last accessed: 14/06/2024)

This suggests that the use of the second past tense form in example (12) is also motivated by the fact that they make claims about the actions of the other discourse participant done in their childhood. The strength of their information source is weaker, and it is less credible compared to the person who actually carried out those actions. Therefore, in this situation, the interviewer does not have the relative authority to claim ownership of knowledge about the other person's action, especially since the action is about sending a letter to the leaders of the Soviet Union. The interviewer

chooses to use the first past tense when they speak about the publishing of a book in Russian in example (13), though. Of course, the existence of a published book is more traceable and tangible than the existence of a more or less personal letter. In this case, there is no need to disclaim authority of the information, hence, the first past tense is used. The reaction of the interviewee (What, how do you know everything?) also suggest that presenting the information in the first past tense puts the speaker in a more knowledgeable position compared to statements made in the second past tense.²²

Similar considerations should be taken into account in connection to the reliability of information – information marked with the second past tense can be regarded as less reliable or accurate because the speaker does not have the authority to claim knowledge. This differentiation appeared in example (11), too, which discussed events that happened in the 1960s. First past tense forms were considered applicable in the case of direct experience as well as if someone lived in that era. The latter is crucial from the point of view of epistemic authority – even though someone lived in the 1960s, they do not necessarily have more direct experience about closing down the collective farms than someone who was born after the 1960s. Nevertheless, those who lived in the 1960s can be considered more knowledgeable as they have a more direct, personal connection to these years and the events happened then compared to people who had not yet been alive. This more direct personal connection enables them to claim epistemic authority. The same stands for the fact that second past tense forms were not preferred if consultants provided a context about someone having conducted research on a topic under discussion.

4.5 Summary

This paper discusses how the use and interpretation of second past tense forms, which are associated with the expression of indirect evidentiality, are affected by various factors other than the marking of information source and type. The analysis shows not only that the Udmurt second past tense is suitable to convey other epistemic notions besides evidentiality, but also that these notions have a decisive role in its usage.

²² One of the reviewers pointed out that it is also possible that the second past tense is used as an element of audience design since sending a letter as a child to the leaders of the Soviet Union is considered something that would be surprising to the audience.

If the specification of the information source is irrelevant, other factors guide the interpretation and use of the morphological marker, which otherwise encodes indirect evidentiality. The specification of the information source is not relevant if it is obvious or can be identified with great probability based on the speech situation and content. It is not relevant either if the information is considered reliable, or shared and/or common knowledge. Even though the study focused on the forms related to indirect evidentiality, examples show that these factors are also relevant for the evidentially unmarked first past tense forms. However, further research is necessary to investigate whether its opposing uses and interpretations to second past tense forms appear only in contrastive situations or whether they belong to the individual interpretation of these tense forms.

Three factors have been reviewed: the assimilated or non-assimilated status of information, the reliability of the information, and the epistemic authority and epistemic primacy of the speaker. The first two factors are connected to the category of mirativity (and intersubjectivity if we take into account the point of view of discourse participants other than the speaker) and epistemic modality, respectively. Regarding the first concept, based on the results, second past tense forms are preferred if the information is non-assimilated, newsworthy and unshared between the discourse participants. On the same note, first past tense forms are preferred if the information is assimilated, shared, and can be considered common knowledge. Considering reliability, second past tense forms are opted for if the information is debatable, less accurate or less reliable, while reliable, factual, accurate information is rather presented using first past tense forms.

The third factor differs from the others as it does not concern assumptions about knowledge or information (i.e., whether it is non-assimilated, unshared or less reliable) but targets the speaker in terms of their right to claim ownership of knowledge. Meaning, the speaker's epistemic authority and/or epistemic primacy guide whether the speaker has the right to present a given piece of information as assimilated, shared or reliable. In this regard, second past tense forms can be applied to lower the speaker's authority and disclaim primacy. Such a consideration highlights that the way the speaker wishes to showcase their knowledge in a given speech situation is more relevant than the factual truth about their actual knowledge and the information.

The example of Udmurt shows that evidential specifications cannot be discussed in isolation from context and interaction. The observations made in connection with Udmurt evidentiality may also tell us more about the dynamics of similar evidential systems, in which the counterpart of an evidentially marked form is neutral in this respect. We can find such systems in several languages of

the so-called evidentiality belt (Aikhenvald 2004:288–290). In such systems, the choice between evidentially marked and unmarked discourse is up to the speaker's decision. Based on Udmurt, using or not using these forms may depend on the subjective relationship and evaluation of the speaker towards the information (i.e., its source, or whether it is a novelty, or whether it is considered reliable) and evaluations about the knowledge status of the discourse participants (i.e., whether the information is a novelty to the other discourse participants, too) as well as their respective position (i.e., their right to claim knowledge). By taking these factors and their effect into consideration, the motivation behind “non-canonical” uses of evidential markers can be explained more consistently.

List of abbreviations

1, 2, 3	first, second, third person
ABL	ablative case
ACC	accusative case
ADJ	adjective
DAT	dative case
FUT	future tense
INF	infinitive
INE	inessive case
INS	instrumental case
INTS	intensifier
ILL	illative case
NMLZ	nominalizer
ORD	ordinal
PRS	present tense
PST	past tense
PST1	first past tense
PST2	second past tense
PL	plural
POSS	possessive
PP	postposition
PTC	particle
RFL	reflexive
SG	singular
Q	question particle

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Jiahong Wang and Yam Leung Lawrence Cheung

5 Egophoric and non-egophoric marking in Golog Tibetan

Abstract: This study examines the distribution and interpretation of egophoric (EGO) and non-egophoric (NON-EGO) forms in Golog Tibetan, a Tibetic language spoken in Qinghai, China. These forms constitute a binary grammatical opposition realized through the copular system, with EGO forms prototypically occurring in first-person declaratives and second-person interrogatives, and NON-EGO forms appearing elsewhere. While this basic pattern exhibits systematic regularity, Golog Tibetan demonstrates remarkable flexibility in the manipulation of these forms for various pragmatic purposes. The paper proposes that the distribution and interpretation of EGO and NON-EGO forms is governed by two interacting factors: the origo's epistemic authority over propositional content, and the consistency between the proposition and the origo's conceptual schema. Crucially, these factors operate differently across syntactic environments, yielding distinct pragmatic effects in simple clauses versus complex copular structures (CCS). In simple clauses, non-prototypical usage of EGO and NON-EGO forms directly reflects the manipulation of epistemic authority and schema consistency, generating interpretations ranging from heightened certainty to expressions of surprise. In CCS, these factors interact with construction-specific semantics to generate distinctive pragmatic interpretations, with the construction's inherent judgment-encoding semantics systematically constraining and shaping the realization of epistemic stance. Through investigation of both prototypical and non-prototypical marking patterns, the analysis reveals how the EGO/NON-EGO opposition encodes complex relationships between knowledge states, cognitive processing, and constructional meaning. This dual-factor model provides a unified account of how these forms serve multiple functions while capturing their sensitivity to clausal complexity and constructional semantics.

Keywords: egophoricity, epistemic marking, Golog Tibetan

Acknowledgements: We gratefully acknowledge the valuable feedback received from participants at the 56th Annual Meeting of the Societas Linguistica Europaea (SLE 56) in Athens. Special thanks are due to the workshop organizers, Karolina Grzech and Henrik Bergqvist, for facilitating such an engaging and productive session. We are particularly indebted to the two anonymous reviewers whose thorough and constructive comments substantially improved both the content and clarity of this manuscript.

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5.1 Introduction

The grammatical encoding of epistemic stance and information access represents a fundamental domain of linguistic organization. Languages employ diverse strategies to mark speakers' relationships to propositional content, ranging from evidential systems that specify information source to epistemic modals that express degrees of certainty. Within this broader landscape of epistemic categories, EGO/NON-EGO marking constitutes a particularly sophisticated system for encoding privileged access to and involvement with information (e.g., Creissels 2008; San Roque, Floyd, and Norcliffe 2018).

This linguistic phenomenon has garnered significant attention in Tibeto-Burman linguistics since the pioneering work by Hale (1980) under the name *conjunct/disjunct* marking. Subsequent research has revealed EGO/NON-EGO marking to be a linguistic phenomenon that exhibits a binary morphological contrast on verbs or other predicating elements, with EGO forms prototypically occurring in first-person declaratives and second-person interrogatives, and NON-EGO forms appearing elsewhere (e.g., Post 2013; San Roque, Floyd, and Norcliffe 2018).

While sharing this core distributional pattern, EGO/NON-EGO marking across Tibetic languages displays considerable variation in their formal exponence, semantic nuances, pragmatic extensions, and interaction with other categories like evidentiality and mirativity (e.g., Sun 1993; Tournadre 2008; DeLancey 2012; Zeisler 2016; Widmer 2017, 2020; Tribur 2019). This diversity has sparked ongoing debates about the fundamental nature, interpretation, and functions of the phenomenon (e.g., DeLancey 1997; Garrett 2001; Hargreaves 2005; Tournadre and LaPolla 2014; San Roque, Floyd, and Norcliffe 2018).

The present study contributes to this ongoing discussion by examining the distribution and interpretation of EGO and NON-EGO forms in Golog Tibetan, a Tibetic variety spoken in Golog Tibetan Autonomous Prefecture, Qinghai Province, China. Located within the Amdo Sprachbund, a region of extensive linguistic convergence spanning the Qinghai-Gansu border area (Slater 2003), Golog Tibetan represents an understudied variety that offers valuable insights into epistemic marking systems. According to the 2020 census conducted by the Qinghai Statistical Bureau (2021), Golog Prefecture has a total population exceeding 210,000, with ethnic Tibetans constituting over 90% of residents. While precise data on speaker numbers remains unavailable, the language maintains robust usage throughout the prefecture.

This study focuses specifically on the semantic and pragmatic factors conditioning the distribution and interpretation of EGO and NON-EGO forms across different grammatical construction types in Golog Tibetan. Our data reveal that while the distribution of EGO and NON-EGO forms in Golog largely follows the prototypical

pattern, non-prototypical uses abound, generating a range of pragmatic implicatures. Consider the following minimal pair in (1):

- (1) a. Prototypical use of EGO with first-person declarative subjects

ང་སྒོར་མོ་ཡོད།

nga sgor.mo yod

1SG money have.EGO

‘I have money.’ (Neutral statement)

- b. Non-prototypical use of NON-EGO with first-person declarative subjects

ང་སྒོར་མོ་ཡོད་ལྟ།

nga sgor.mo yod.khu

1SG money have.NON-EGO

‘I have money!’ (Expression of surprise/recent discovery)

[Context: The speaker discovers money in the pocket of an old piece of clothing not worn for a long time.]

Examples (1a) and (1b) differ only in their selection between EGO and NON-EGO forms, but convey distinct meanings. In (1a), the EGO form *yod* appears in its prototypical use, conveying a neutral declarative statement. In contrast, (1b) demonstrates non-prototypical use of the NON-EGO form *yod.khu*, which expresses the speaker’s surprise or recent discovery. This minimal pair exemplifies how non-prototypical use of EGO and NON-EGO forms in Golog Tibetan encodes extended pragmatic interpretations beyond their core grammatical functions.

A particularly significant finding is that these extended pragmatic effects are construction-specific, varying between simple clauses and complex copular structures. Most notably, the same non-prototypical marking can yield contrastive pragmatic interpretations across these syntactic environments. For instance, in simple clauses like (2b), non-prototypical use of the EGO form *yin* conveys the speaker’s heightened certainty toward the propositional content, while in complex copular structures like (3b), the same non-prototypical use of *yin* marks the speaker’s reduced certainty or inferential stance towards the described scenario. This reversal in pragmatic effect – from strengthened to diminished epistemic commitment – demonstrates how the interpretation of non-prototypical marking shows construction variation.

- (2) a. Prototypical use of NON-EGO with non-first-person subjects

མིར་སྒྲོ་སྒྲོ་བ་མ་ཟིག་རེད།

mir.sge slob.ma zig red

3SG.F student CLF COP.NON-EGO

‘She is a student.’ (Neutral statement)

b. Non-prototypical use of EGO with non-first-person subjects

མིར་སྒེ་སློབ་མ་གྱི་ཡིན།

mir:sge slob.ma zig yin

3SG.F student CLF COP.EGO

‘She is a student.’ (Asserted certainty)

[Context: The sentence subject is the speaker’s sister.]

(3) a. Prototypical use of NON-EGO with non-first-person subjects

ལྷག་ག་ན་ཆར་འབབ་གོ་ནི་རེད།

ltag.ga.na char ‘bab-gol-ni-red

outside rain fall-IPFV-NI-COP.NON-EGO

‘(I render a definitive assertive judgment that) It is raining outside.’

(Neutral statement)

b. Non-prototypical use of EGO with non-first-person subjects

ལྷག་ག་ན་ཆར་འབབ་གོ་ནི་ཡིན།

ltag.ga.na char ‘bab-gol-ni-yin

outside rain fall-IPFV-NI-COP.EGO

‘(I render a judgment that) It is raining outside.’ (Reduced certainty/
Inferential reading).’

Based on detailed examination of both simple clauses and complex copular structures, we propose that the distribution and interpretation of EGO and NON-EGO forms in Golog Tibetan is fundamentally governed by two interacting factors:

- (i) the origo’s epistemic authority over the propositional content
- (ii) the (in)consistency between the expressed proposition and the origo’s conceptual schema

These two factors drive both the systematic distribution and pragmatic versatility of EGO and NON-EGO forms across different grammatical contexts. In simple clauses, they directly determine marking choices, generating implicatures such as heightened certainty and surprise. In complex copular structures, they interact with the construction-specific semantics to produce pragmatic effects distinct from those observed in simple clauses, demonstrating how the potential of EGO and NON-EGO marking is both augmented and constrained through its interaction with specific grammatical structures.

The paper proceeds as follows: Section 5.2 presents the paradigm of EGO and NON-EGO forms in Golog Tibetan. Section 5.3 examines their prototypical distribution across simple clauses and complex copular structures. Section 5.4 and Section 5.5 analyze the extended pragmatic meanings that emerge through non-prototypical distribution in simple clauses and complex copular structures, respectively. Section 5.6 synthesizes the observations into a unified account of Golog EGO and

NON-EGO marking grounded in the manipulation of epistemic authority and schema-proposition consistency. Section 5.7 concludes.

5.2 Paradigm of EGO and NON-EGO forms in Golog Tibetan

In Golog Tibetan, EGO and NON-EGO forms constitute a binary grammatical opposition realized through the copular system, with EGO forms prototypically occurring in first-person declaratives and second-person interrogatives, and NON-EGO forms appearing elsewhere. We analyze EGO and NON-EGO forms as instantiating a distinct grammatical category, separate from, though systematically interacting with, other epistemic markers in the language, including the sensory evidential *thal* and the inferential evidential *zig*. Although Golog exhibits a rich inventory of epistemic markers whose distributional and functional properties merit thorough investigation, such an analysis lies beyond our current scope. In this study, we focus specifically on the distribution and semantic-pragmatic interpretation of the EGO/NON-EGO opposition.

The term ‘NON-EGO’ requires precise theoretical delimitation. Following an approach similar to Tribur’s (2019) analysis of ‘allophoric’ markers in Amdo Tibetan, we use ‘NON-EGO’ strictly to designate the opposing value to EGO forms within this binary paradigm, rather than as an umbrella term encompassing other grammatical markers (e.g., evidentials) within the language’s broader epistemic system. This terminological specificity reflects our analysis of EGO and NON-EGO forms as constituting a systematic grammatical opposition in Golog Tibetan.

Table 1 presents the paradigm of EGO and NON-EGO forms across different constructions in Golog Tibetan. Constructions that lack a copular element, such as the simple past (i.e., *V*) and perfective aspects (i.e., *V-dang*), do not display the EGO/NON-EGO contrast. Consequently, these constructions have been omitted from the paradigm presented in Table 1, which focuses on constructions that exhibit this morphological distinction.

Table 1: EGO and NON-EGO forms in Golog Tibetan.

Construction	EGO	NON-EGO
EQUATIVE COPULA	<i>yin</i>	<i>red</i>
FUTURE	<i>V-rgyu(-yin)</i>	<i>V-rgyu(-red)</i>
EXISTENTIAL COPULA	<i>yod</i>	<i>yod-khu</i>
IMPERFECTIVE	<i>V-gi-yod(-gol)</i>	<i>V-go(l)-khu</i>
PERFECT	<i>V-yod</i>	<i>V-yod-khu</i>

5.3 Prototypical distribution pattern

This section examines the prototypical distribution of EGO and NON-EGO forms in Golog Tibetan across two primary syntactic environments: simple clauses and complex copular structures (CCS). Understanding these baseline distributional patterns establishes the foundation for our subsequent investigation of their extended pragmatic implications.

5.3.1 Prototypical distribution pattern in simple clauses

Simple clauses in Golog Tibetan are monoclausal constructions containing a single predicate, as exemplified in (4):

- (4) a. Copular clause

ང་སྤང་བློ་ཡིན།
nga bod zig yin
 1SG Tibetan CLF COP.EGO
 ‘I am a Tibetan.’

- b. Lexical verb clause

ལོ་མ་ལྷུང་ཡོད་ཁ།
lo.ma lhung yod.khu
 leaf fall have.NON-EGO
 ‘The leaves have fallen.’

In declarative simple sentences, EGO forms occur prototypically with first person subjects (5a), while NON-EGO forms appear with second and third person subjects (5b).

- (5) a. ང་སྤྱི་མ་བློ་ཡིན།

nga slob.ma zig yin
 1SG student CLF COP.EGO
 ‘I am a student.’

- b. ཁྱེད་/ཁོང་གི་/ཁོང་གི་དགེ་ལེན་བློ་ཡིན་རེད།

khyod/khir:sge/mir:sge dge.rgan zig red
 2SG/3SG.M/3SG.F teacher CLF COP.NON-EGO
 ‘You are/he is/she is a teacher.’

Interrogative simple sentences exhibit a different pattern: EGO forms appear with second person subjects (6a), while NON-EGO forms occur with first and third person subjects (6b).

- (6) a. ཁྱེད་སློབ་མ་ཟིག་ཡིན།
khyod slob.ma zig i yin
 2SG student CLF Q COP.EGO
 ‘Are you a student?’
- b. ང་/ཁིར་སླེ་མིར་སློབ་མ་ཟིག་ཡིན་ཟེད།
nga/khir.sge/mir.sge slob.ma zig i red
 1SG/3SG.M/3SG.F student CLF Q COP.NON-EGO
 ‘Am I/Is he/Is she a student?’

This distribution reflects the prototypical association between EGO forms and the perspective of the ‘epistemic source’ (Hargreaves 2005) or ‘origo’ (Garrett 2001) – the speaker in declaratives and the addressee in interrogatives.

5.3.2 Prototypical distribution pattern in complex copular structures

Complex copular structures (CCS) in Golog Tibetan represent a distinct constructional environment for EGO/NON-EGO marking. A CCS comprises a matrix equational copula *yin/red* (functionally analogous to English *be*) with a subordinate clause, connected by connectives such as *ni* and *rgyu*. Examples (7a) and (7b) illustrate these structures:

- (7) a. ང་སློབ་མ་ཟིག་ཡིན་ནི་ཡིན།
[nga slob.ma zig yin]-ni-yin
 [1SG student CLF COP]-NI-COP.EGO
 ‘(I render a definitive assertive judgment that) I am a student.’
- b. ང་སློབ་གྲར་འགྱུར་གྱི་ཡིན།
[nga slob.grwar ‘gro]-rgyu-yin
 [1SG school go]-RGYU-COP.EGO
 ‘(I render a definitive assertive judgment that) I will go to school.’

In (7a), the subordinate clause *nga slob.ma zig yin* combines with the matrix copula *yin* through the connective *ni*, while in (7b), the subordinate clause *nga slob.grwar ‘gro* integrates with the matrix copula *yin* via the connective *rgyu*. Both structures

exhibit a hierarchical organization where the matrix copula adds a layer of definitive judgment to the propositional content expressed in the subordinate clause.

A methodological consideration merits attention regarding our unified treatment of these constructions. In the literature on Tibetan languages, *-rgyu-yin/red* and *-ni-yin/red* have traditionally been analyzed as distinct grammatical phenomena: the former as a grammaticalized future construction and the latter as factual or present perfect/past marking (cf. e.g., Garrett 2001; Tribur 2019). This theoretical divergence might appear to preclude their unified treatment.

However, our analysis of Golog data reveals substantial structural and functional parallels that justify their unified treatment. Crucially, these constructions resist analysis as simple verb syntagmas marking temporal reference (i.e., ‘V-*ni/rgyu-yin/red*’). Rather, they exhibit a more complex, layered architecture where the matrix copula *yin/red* contributes definitive judgment meaning to the underlying proposition (i.e., [proposition]-*ni/rgyu-yin/red*).

This analysis finds support in several empirical observations. First, both constructions demonstrate temporal flexibility, occurring across diverse tense-aspect environments. Notably, the deletion of either *-rgyu-yin/red* or *-ni-yin/red* does not affect temporal-aspectual interpretation but rather eliminates the expression of the origo’s definitive judgment.¹ This suggests their primary function lies in epistemic marking rather than temporal reference. Second, these constructions exhibit parallel syntactic behaviors, including the capacity for stacking of connectives (*ni/rgyu*) and equational copulas (*yin/red*) (e.g., *ni-yin-ni-yin/red*, *rgyu-yin-ni-yin/red*) to

1 In (i) and (ii), deleting *ni/rgyu-yin/red* only eliminates the expression of the origo’s definitive judgment.

- (i) a. ཁིར་སྒེ་སྤོ་ལ་བཞེས་ནི་རེད།
khir.sge spo.lo brtses-ni-red
 3SG.M basketball play.PST-NI-COP.NON-EGO
 ‘(I render an affirmative judgment that) He played basketball.’
 b. ཁིར་སྒེ་སྤོ་ལ་བཞེས།
khir.sge spo.lo brtses
 3SG.M basketball play.PST
 ‘He played basketball.’
- (ii) a. ངས་ནངས་ཀྱི་ལས་བྱ་འབྲི་རྒྱུ་ཡིན།
ngas nang.ska las.bya ‘bri-rgyu-yin
 1SG.ERG tomorrow homework write-RGYU-COP.NON-EGO
 ‘(I render an affirmative judgment that) I will do my homework tomorrow.’
 b. ངས་ནངས་ཀྱི་ལས་བྱ་འབྲི་ཡ།
ngas nang.ska las.bya ‘bri ya
 1SG.ERG tomorrow homework write SFP
 ‘I will do my homework tomorrow.’

modulate epistemic force. Furthermore, they demonstrate systematic interchangeability in specific epistemic contexts, particularly those involving reduced certainty or inferential judgments, where either connective can be employed without significant semantic distinction.²

While a comprehensive justification of this unified treatment extends beyond the scope of our present investigation – which focuses specifically on examining the distribution and interpretation of EGO/NON-EGO forms across different constructional environments – the structural and functional parallels observed in the data strongly warrant treating these constructions as manifestations of a unified grammatical phenomenon in Golog Tibetan.

Semantically, all CCS share a fundamental property: they encode the origo’s definitive judgment regarding propositional content, though their distribution varies across temporal-aspectual environments. Table 2 presents the major CCS types and their conventional semantic meanings.

Table 2: Major complex copular structures in Golog Tibetan.

CONSTRUCTION	CONVENTIONAL SEMANTIC MEANING
subordinate clause + <i>ni</i> + <i>yin/red</i>	express the origo’s definitive judgment concerning the proposition (typically occurring in non-future contexts)
subordinate clause + <i>rgyu</i> + <i>yin/red</i>	express the origo’s definitive judgment concerning the proposition (more commonly occurring in contexts with future temporal reference)

In CCS, the EGO/NON-EGO contrast is realized in the matrix equational copula, appearing either as the EGO form *yin* or the NON-EGO form *red* respectively. The prototypical distribution of these forms in CCS follows the same person-sensitive pattern found in simple clauses: the EGO form *yin* occurs in first-person declaratives and second-person interrogatives, while the NON-EGO form *red* appears elsewhere.

2 Example (i) demonstrates the pattern of stacking connectives (*ni/rgyu*) and equational copulas (*yin/red*), an arrangement that typically encodes the origo’s epistemic judgment with reduced certainty. In such scenarios, the matrix *ni/rgyu* are interchangeable, as shown in (ia) and (ib):

- (i) a.

ཁིར་སྒེ་སྤོ་ལོ་བརྟུན་ནི་ཡིན་ཏུ་རེད།
[*khir:sge spo.lo brtses*]-*ni-yin-rgyu-red*
[3SG basketball play.PST]-NI-COP-RGYU-COP.NON-EGO
'He must have played basketball.' (speaker's affirmative judgment with reduced certainty)
- b.

ཁིར་སྒེ་སྤོ་ལོ་བརྟུན་ནི་ཡིན་ནི་རེད།
[*khir:sge spo.lo brtses*]-*ni-yin-ni-red*
[3SG basketball play.PST]-NI-COP-NI-COP.NON-EGO
'He must have played basketball.' (speaker's affirmative judgment with reduced certainty)

Notably, the full expression of construction-specific meanings demonstrated in Table 2 depends on this prototypical use of EGO and NON-EGO forms, as illustrated in examples (8)–(10).

In the ‘subordinate clause + *ni* + *yin/red*’ construction, when EGO and NON-EGO forms are used prototypically, they express the origo’s definitive assertive judgment towards the proposition, presenting the proposition as an established fact, as shown in (8):

- (8) a. ང་སློབ་མ་ཟེག་ཡིན་ནི་ཡིན།
nga slob.ma zig yin-ni-yin
 1SG student CLF COP-NI-COP.EGO
 ‘(I render a definitive assertive judgment that) I am a student.’
- b. ཁྱེད་ཁོང་སློབ་མ་ཟེག་གི་ཡིན་ནི་རེད།
khyod/khir.sge/mir.sge dge.rgan zig yin-ni-red
 2SG/3SG.M/3SG.F teacher CLF COP-NI-COP.NON-EGO
 ‘(I render a definitive assertive judgment that) You are/he is/she is a teacher.’

Similar to the ‘subordinate clause + *ni* + *yin/red*’ construction, the ‘subordinate clause + *rgyu* + *yin/red*’ construction with prototypically used EGO and NON-EGO forms also conveys the origo’s definitive assertive judgment towards the proposition, though it more commonly appears in contexts involving future temporal reference, as shown in (9):

- (9) a. ང་ནངས་ཀྱི་ཐོན་རྒྱུ་ཡིན།
nga nangs.ka thon-rgyu-yin
 1SG tomorrow come-RGYU-COP.EGO
 ‘(I render a definitive assertive judgment that) I will come tomorrow.’
- b. བཤེན་པོས་ནངས་ཀྱི་ཐོན་རྒྱུ་རེད།
bkra.shis nangs.ka thon-rgyu-red
 Tashi tomorrow come-RGYU-COP.NON-EGO
 ‘(I render a definitive assertive judgment that) Tashi will come tomorrow.’

Notably, the ‘subordinate clause + *rgyu* + *yin/red*’ construction also appears productively in non-future contexts while maintaining its core epistemic function of making definitive judgement. In such cases, it demonstrates systematic interchangeability with the ‘subordinate clause + *ni* + *yin/red*’ construction with no semantic distinction, as exemplified in (10B₁) and (10B₂).

- (10) A: ཆེ་ཟིག་གི་དྲི་མ་ཡིན་ནེ་རེད།
chi.zig gi dri.ma da 'di.mo btsog.ga.zig yin-ni-red
 what GEN smell CONJ so smelly COP-NI-COP.NON-EGO
 ‘What’s this terrible smell?’
- B₁: གད་སྟེགས་གི་དྲི་མ་ཡིན་ཟུ་རེད། [present tense construction]
gad.snyigs gi dri.ma yin-rgyu-red
 garbage GEN smell COP-RGYU-COP.NON-EGO
 ‘(I render a definitive assertive judgment that) It is garbage’s smell.’
- B₂: གད་སྟེགས་གི་དྲི་མ་ཡིན་ནེ་རེད།
gad.snyigs gi dri.ma yin-ni-red
 garbage GEN smell COP-NI-COP.NON-EGO
 ‘(I render a definitive assertive judgment that) It is garbage’s smell.’

5.3.3 Distributional differences between constructional types

While simple clauses and CCS exhibit similar prototypical patterns of EGO and NON-EGO marking, an important distinction emerges in their distribution with first-person subjects when verbs lexically encode lack of control (e.g., *log* ‘fall’, *kos* ‘feel painful’, etc.).

In CCS, in non-controllable events, these verbs obligatorily require NON-EGO forms, as exemplified in (11–13):

- (11) ང་ད་སྐོམ་མ་ལོག་ཡོད་ནེ་རེད།/*ཡིན།
*nga da.so.ma log yod-ni-{red/*yin}*
 1SG just now fall have-NI-{COP.NON-EGO/*COP.EGO}
 ‘(I render a definitive assertive judgment that) I just fell down.’
 [Context: The speaker does not have control over falling down.]
- (12) ཁ། ཁྱད་ཆེ་ཟིག་ཁོས་ནེ་རེད།/*ཡིན།
 A: *khyod chi.zig khos-ni-{red/*yin}*
 2SG what hurt-NI-{COP.NON-EGO/*COP.EGO}
 ‘What’s hurting you?’
- ཁ། ངའི་མག་ཁོས་ནེ་རེད།/*ཡིན།
 B: *nga'i mgo khos-ni-{red/*yin}*
 1SG.GEN head hurt-NI-{COP.NON-EGO/*COP.EGO}
 ‘(I render a definitive assertive judgment that) My head hurts.’
 [Context: The speaker does not have control over having a headache.]

- (13) ང་ཅུང་དུས་སྔོང་སྐོར་ནས་ལག་ཆགས་ནི་{རང་/*ཡིན།}
*nga chung.dus stong.skor nas lag.chags-ni-{red/*yin}*
 1SG young Stongskor LOC grow-NI-{COP.NON-EGO/*COP.EGO}
 ‘(I render a definitive assertive judgment that) When I was young, I grew up
 in StongSkor.’
 [Context: The speaker does not have control over growing up.]

In simple clauses, however, greater flexibility emerges in such contexts. While EGO forms are typically incompatible with non-controllable predicates, they are not categorially banned, though their use is highly marked and rare, as exemplified in (14):

- (14) a. ང་ལོག་ཐལ།
nga log thal
 1SG fall EVI.SEN
 ‘I fell down.’ (Neutral statement)
- b. ང་ལོག་ཡོད།
nga log yod
 1SG fall have.EGO
 ‘I fell down.’

The non-prototypical use of EGO form in contexts like (14b) occurs only in specific situations, such as when speakers aim to clarify their knowledge of the event (e.g., after being shown a photo or video of the incident) despite lacking direct sensory experience at the time of occurrence (e.g., due to heavy intoxication). In such cases, speakers may opt for the EGO form instead of the prototypical sensory evidential marker *thal* (14a), indicating possession of relevant knowledge despite lacking direct sensory perception.

This contrast highlights a crucial difference between simple clauses and CCS: while simple clauses permit limited variability in EGO/NON-EGO marking with verbs lexically encoding lack of control (such as *log* ‘fall’, *kos* ‘feel painful’), CCS categorically exclude EGO forms in all contexts involving such verbs in non-controllable events.

5.3.4 Summary of prototypical distribution patterns

Table 3 summarizes the prototypical distribution of EGO/NON-EGO forms in Golog Tibetan across both simple clauses and CCS, based on patterns observed in pragmatically neutral contexts.

Table 3: Prototypical distribution patterns of EGO/NON-EGO forms in Golog Tibetan.

CONSTRUCTION		EGO	NON-EGO	MEANING
DECLARATIVE	SIMPLE	1st subject	2nd, 3rd subject	default statement
	CCS	1st subject (controllable)	2nd, 3rd subject	default constructional semantics
INTERROGATIVE	SIMPLE	2nd subject	1st, 3rd subject	default question
	CCS	2nd subject (controllable)	1st, 3rd subject	default constructional semantics

This prototypical pattern serves as the foundation for understanding the extended pragmatic functions that arise when EGO/NON-EGO forms are used non-prototypically, as explored in subsequent sections. The system’s pragmatic versatility lies in its flexibility to deviate from prototypical patterns, enabling speakers to express various epistemic stances and intersubjective positions.

5.4 Non-prototypical distribution pattern in simple clauses

While Golog Tibetan exhibits systematic prototypical patterns in EGO/NON-EGO marking as established in Section 5.3, these forms demonstrate considerable flexibility in their distribution, enabling speakers to convey extended pragmatic meanings through non-prototypical usage. This section examines how EGO and NON-EGO forms generate extended pragmatic effects when used non-prototypically in simple clauses.

5.4.1 Non-prototypical use of EGO forms

5.4.1.1 Expressing asserted certainty

In declarative contexts, EGO forms occurring with non-first person subjects can express the speaker’s heightened certainty about the proposition, provided that the speaker possesses both epistemic authority and relevant knowledge to make such assertions. Consider example (15), where the EGO form indexes the speaker’s claim to epistemic rights over the subject’s characteristics, conveying stronger assertive force than would be achieved with the prototypical NON-EGO form.

(15) བླ་ཤིས་མྱི་བཟང་ང་ཟེག་ཡིན།

bkar.shis myi bzang.nga zig yin

Tashi person nice CLF COP.EGO

‘Tashi is a nice person.’

(I assert this with certainty because he has done many good things for me.)

This usage in (15) typically requires the speaker to have direct, personal evidence supporting their assertion, such as the speaker asserts that the sentence subject (Tashi) is a nice person based on personal experience of Tashi’s good deeds.

In interrogatives, perspective shifts from the speaker to the addressee (cf. Hargreaves 1991, 2005; Tournadre and LaPolla 2014). The choice between EGO and NON-EGO forms reflects the speaker’s expectation about the addressee’s potential response. The non-prototypical use of the EGO form with third person subjects can express the speaker’s anticipation that the addressee will respond with asserted certainty, as illustrated in example (16):

(16) བླ་ཤིས་མྱི་བཟང་ང་ཟེག་མི་ཡིན།

bkar.shis myi bzang.nga zig i yin

Tashi person nice CLF Q COP.EGO

‘Is Tashi a nice person?’

Example (16) would be appropriate in a scenario where the speaker has observed Tashi performing a kind act for a young child (e.g., offering the child some snacks). When the speaker subsequently engages the child in conversation, they might ask ‘Is he a nice person?’ The use of the EGO form in this context indexes the speaker’s expectation that the addressee (the child) possesses epistemic authority and first-hand knowledge regarding Tashi’s benevolence.

5.4.1.2 Implying closeness or intimacy

Non-prototypical use of EGO forms can also signal a close, intimate relationship between the speaker and referent. Consider example (17), where the use of the EGO form with the third person subject Tashi could suggest that the speaker has a sufficiently intimate relationship with Tashi to claim epistemic authority regarding his profession. The unmarked NON-EGO form would be more appropriate if Tashi is a stranger or distant acquaintance.

- (17) བཞུ་ཤིས་ནི་དགེ་རྒན་ཟེག་ཡིན།
bkar.shis ni dgi.rgan zig yin
 Tashi TOP nice CLF COP.EGO
 ‘Tashi is a teacher.’ (e.g., Tashi is the speaker’s son.)

In interrogatives, the non-prototypical use of the EGO form with third person subjects can convey the addressee’s presumed close relationship with the referent, in contrast to the neutral stance conveyed by NON-EGO. For instance, in example (18), the speaker asks about the identity of Tashi, who is the addressee’s son. In such scenarios, speakers commonly employ EGO forms to acknowledge this anticipated closeness and intimacy:

- (18) བཞུ་ཤིས་དགེ་རྒན་ཟེག་མི་ཡིན།
bkar.shis dgi.rgan zig i yin
 Tashi teacher CLF Q COP.EGO
 ‘Is Tashi a teacher?’ (Implying anticipated closeness, e.g., Tashi is the addressee’s son.)

5.4.2 Non-prototypical use of NON-EGO forms

5.4.2.1 Expressing surprise

In declaratives with first person subjects, the non-prototypical use of NON-EGO forms can express the speaker’s surprise at a newly discovered state of affairs:

- (19) ང་སྒོར་མོ་ཡོད་ཁ།
nga sgor.mo yod.khu
 1SG money have.NON-EGO
 ‘I have money!’ (Expression of surprise/recent discovery)

In (19), the speaker employs the NON-EGO form to express surprise upon discovering money in a garment that has not been worn for an extended period. The NON-EGO form encodes the speaker’s prior ignorance and the punctual realization of the surprising information. Golog speaker judgment is that using EGO is inappropriate in this scenario. NON-EGO forms are preferred, highlighting the speaker’s transition from epistemic ignorance to awareness, rather than indicating pre-existing knowledge of the situation.

Nevertheless, it is not acceptable to use the non-prototypical NON-EGO form to express surprise in second-person interrogative context, as shown in (20):

- (20) * རྒྱུ་སྒོར་མེད་ཡོད་ཀྱུ།
khyod sgor.mo i yod.khu
 2SG money Q have.NON-EGO
 Intended: ‘You have money?’ (Anticipating addressee will express surprise regarding whether they have or do not have money)

This restriction is unexpected. However, it possibly stems from a fundamental pragmatic incompatibility. When interrogatives shift perspective to the addressee, they position the addressee as the epistemic source – one who possesses the relevant knowledge to provide an answer. However, surprise meanings inherently require the experiencer to transition from a state of not knowing to knowing. This creates an irreconcilable temporal paradox: the addressee cannot simultaneously assume the role of a knowledgeable respondent (presupposed by interrogatives) and the role of someone who is just discovering the information (required for surprise). This perspective conflict blocks the surprise interpretation in second-person interrogative contexts.

5.4.2.2 Describing irrealis scenarios

Golog Tibetan mandates NON-EGO forms when describing irrealis situations.³ Ego forms are categorically excluded in these contexts. Consider example (21), which illustrates this pattern in dream narration, where the speaker uses the NON-EGO form *yod.khu* to describe becoming an actor within a dream state:

- (21) ངས་མངའ་དགོང་མི་ལམ་ཐེག་མིས་ཐ་དེ། མི་ལམ་ནང་ནས་ང་འབྱུང་མྱོན་པ་ཐེག་གི་ལོག་བཟང་དཔྱད་ཀྱུ།
ngas mdang.dgong rmi.lam zig rmis tha ra rmi.lam
 1SG.ERG last.night dream CLF dream EVI.SEN CONN dream
nang nas nga vkhrub.ston.pa zig gi log.bsdad yod.khu
 inside LOC 1SG actor CLF CONN become have.NON-EGO
 ‘Last night I had a dream. In the dream, I became an actor.’

NON-EGO forms in interrogatives enable the speaker to ask about addressee’s irrealis situations, as in the dream query in (22).

³ We gratefully acknowledge the valuable input from participants at the 56th Annual Meeting of the Societas Linguistica Europaea (SLE56) in Athens. Their perceptive questions and discussions concerning the use of egophoric and non-egophoric markers in irrealis scenarios have significantly informed our analysis of this phenomenon in Golog Tibetan.

(22) ཁྱིམ་ལ་ནང་ན་ཅི་བྱས་ཡོད་གོ་ལཱ།

khyos rmyi.lam nang na chi.zig yed-gol.khu

2SG.ERG dream inside LOC what do-IPFV.NON-EGO

‘What did you do in your dream?’

5.5 Non-prototypical distribution pattern in complex copular structures

This section examines how EGO and NON-EGO forms in CCS demonstrate distinct pragmatic extensions and distributional constraints from those observed in simple clauses. Unlike simple clauses, CCS inherently encode the origo’s definitive judgment regarding propositional content, leading to systematic differences in how non-prototypical marking generates pragmatic effects.

5.5.1 Manipulating the expression of control

5.5.1.1 Expressing unusual degree of control

As established in Section 5.3.3, verbs lexically encoding lack of control (e.g., *log* ‘fall’) require NON-EGO marking in non-controllable CCS. However, in CCS, speakers can deliberately employ EGO forms in sentences with the same verbs to express an unusual degree of control over normally uncontrollable events. Compare the following example with example (11) from Section 5.3.3:

(23) ང་པས་མ་གཞིས་ཡེ་ལོག་ནི་ཡིན། མིར་དགོང་གི་བརྒྱུག་ནི་ཡིན།

nga bsam.gzes.ye log-ni.yin mir dgod.gi bcug-ni-yin

1SG purposely fall-NI-COP.EGO 3SG.F laugh.at let-NI-COP.EGO

‘(I render a definitive assertive judgment that) I purposely fall down to amuse her.’ [lit. ‘I purposely fall down to let her laugh at me.’]

(11) ང་ད་ལ་མ་གོ་ཡོད་ནི་ཟེང་ལོག་པ་ཡིན།

*nga da.so.ma log yod-ni-{red/*yin}*

1SG just now fall have-NI-{COP.NON-EGO/*COP.EGO}

‘(I render a definitive assertive judgment that) I just fell down.’

[Context: The speaker does not have control over falling down.]

5.5.1.2 Expressing exceptional non-control

While certain verbs inherently encode non-controllable states or actions and systematically require NON-EGO marking in non-controllable contexts (as established in Section 5.3.3), this pattern can extend productively to verbs that typically encode subject control. In these cases, non-prototypical use of the NON-EGO form with first-person subjects indicates that a normally controlled action has become subject to external control. Consider the following minimal pair with the volitional verb ‘gro’ ‘go’:

- (26) a. ང་ནངས་ཀ་པལ་ཆེར་སློབ་གྲོགས་ལ་སློབ་ལྟོ་བྱ་བ།
nga nangs.ka phal.cher slob.grwar ‘gro-rgyu-yin
 1SG tomorrow probably school go-RGYU-COP.EGO
 ‘I will probably go to school tomorrow.’ (Neutral statement)
- b. ང་ནངས་ཀ་པལ་ཆེར་སློབ་གྲོགས་ལ་སློབ་ལྟོ་བྱ་བ་མེད།
nga nangs.ka phal.cher slob.grwar ‘gro-rgyu-red
 1SG tomorrow probably school go-RGYU-COP.NON-EGO
 ‘I will probably go to school tomorrow (but it’s not fully under my control; e.g., my parents decide.)’

The contrast between (26a) and (26b) demonstrates how non-prototypical use of NON-EGO forms can override the inherent volitionality of verbs like ‘go’ to express lack of control.

However, this exceptional non-control marking excludes second-person interrogative contexts. Unlike verbs lexically encoding lack of control (e.g., *kos* ‘feel painful’ in example (12), attempts to non-prototypically use NON-EGO forms in second-person interrogatives with volitional verbs yield reduced acceptability:

- (27) ? ཁྱེད་ནངས་ཀ་པལ་ཆེར་སློབ་གྲོགས་ལ་སློབ་ལྟོ་བྱ་བ་མེད།
khyod nangs.ka slob.grwar ‘gro-rgyu-i-red
 2SG tomorrow school go-RGYU-Q-COP.NON-EGO
 Intended: ‘Will you go to school tomorrow (and I know you do not have control though)?’

This restriction stems from the pragmatic incongruity of presupposing another individual’s lack of control over conventionally controlled events. While speakers can readily mark their own actions as exceptionally non-controlled through non-prototypical NON-EGO forms, projecting such lack of control onto an addressee in questions creates marked pragmatic tension.

5.5.2 Expressing reduced certainty/inferential reading

Contrary to simple clauses, when EGO forms are used non-prototypically with non-first-person subjects in CCS, they can encode reduced certainty. While speakers in these contexts possess adequate indirect evidence to formulate evaluative judgments, the indirect nature of their evidential access leads them to mark their inability to make categorical assertions. Such non-prototypical deployment of the EGO form thus functions to simultaneously signal both the speaker's diminished capacity for definitive judgment and their maintained ability to draw inferential conclusions based on available evidence. This can be illustrated through the contrast between examples (28a) and (28b):

- (28) a. Prototypical use of NON-EGO with non-first-person subjects

ལྷག་གན་ཆར་འབབ་གོ་ནི་རེད།

ltag.ga.na char 'bab-gol-ni-red

outside rain fall-IPFV-NI-COP.NON-EGO

'(I render a definitive assertive judgment that) It is raining outside.'

(Neutral statement)

- b. Non-prototypical use of EGO with non-first-person subjects

ལྷག་གན་ཆར་འབབ་གོ་ལིན།

ltag.ga.na char 'bab-gol-ni-yin

outside rain fall-IPFV-NI-COP.EGO

'(I render a judgment with reduced certainty) It is raining outside.'

(Reduced certainty/Inferential reading)

Example (28a) demonstrates the prototypical distribution of the NON-EGO form. The environmental configuration provides optimal conditions for direct evidential access: the speaker, situated in an indoor environment with visual access through a transparent barrier, obtains immediate perceptual verification of precipitation. This direct sensory input licenses the prototypical use of the NON-EGO form to encode the speaker's definitive assertive judgment. Example (28b) illustrates how indirect evidence triggers the non-prototypical use of the EGO form. Consider a scenario where a speaker has just returned home from outside. Prior to entering a windowless house, the speaker observed weather conditions strongly suggesting imminent rain. After moving indoors, the speaker hears muffled sounds consistent with rainfall. The speaker's evidence comprises two sequential types of sensory input: first, direct visual observation of pre-rain conditions, followed by indirect acoustic signals indicating precipitation. While these ordered sensory inputs enable the speaker to form a probabilistic judgment about current weather conditions, the

speaker's indoor positioning precludes direct verification. This reduced access to direct evidence necessitates non-prototypical use of the EGO form to encode the speaker's reduced capacity for definitive judgment.

This pattern is further corroborated by the unacceptability of the EGO form in non-first-person contexts where the speaker has definite knowledge. Consider the following minimal pair involving a task assignment scenario. A teacher (the speaker) has assigned a student, Tashi, to complete a task as homework. When another teacher asks who is assigned the task, the speaker answers, 'Tashi will finish this task (homework). I have already assigned it to him.' In this context, only the prototypical NON-EGO form is pragmatically felicitous:

- (29) a. བཏཱ་ཤིས་གིས་ལས་བྱ་འདི་བྲིས་ཚར་ཆུ་ཡོད། ངས་ཁིར་ཁྱེར་ཐོན་ཐོག་ནས་འདི་འགན་ཁུར་ཡ་བགོས་ཡི་བཞག་ཡོད།
bkra.shis gis las.bya 'di bris-tshar-rgyu-red
 Tashi ERG homework this write-PFV-RGYU-COP.NON-EGO
ngas khir.sger sngon.zig.nas 'di 'gan.khur ya
 1SG.ERG 3SG.M earlier this task CONN
bgos.ye.bzhag yod
 distribute have.EGO
 '(I render a definitive assertive judgment that) Tashi will finish this homework. I have already assigned this task to him.'
- b. # བཏཱ་ཤིས་གིས་ལས་བྱ་འདི་བྲིས་ཚར་ཆུ་ཡོད། ངས་ཁིར་ཁྱེར་ཐོན་ཐོག་ནས་འདི་འགན་ཁུར་ཡ་བགོས་ཡི་བཞག་ཡོད།
bkra.shis gis las.bya 'di bris-tshar-rgyu-yin
 Tashi ERG homework this write-PFV-RGYU-COP.EGO
ngas khir.sger sngon.zig.nas 'di 'gan.khur ya
 1SG.ERG 3SG.M earlier this task CONN
bgos.ye.bzhag yod
 distribute have.EGO
 Intended: (I render a judgment with reduced certainty that) 'Tashi will finish this homework. I have already assigned this task to him.'

The pragmatic infelicity of (29b) demonstrates that non-prototypical distribution patterns are incompatible with contexts of definitive speaker knowledge. Since the speaker has personally assigned the task to Tashi, they possess unambiguous first-hand knowledge of the assignment. This direct epistemic access mandates the prototypical use of the NON-EGO form seen in (29a). The non-prototypical use of the EGO form in (29b), which signals reduced certainty or inference, creates a pragmatic contradiction with the speaker's established direct knowledge of the situation. This restriction provides further evidence that non-prototypical distribution patterns in CCS can indicate reduced epistemic authority or inferential knowledge states.

However, this pragmatic extension is systematically blocked in interrogative contexts:

(30) a. Prototypical use of NON-EGO with non-second-person subjects

ལྷག་ག་ན་ཆར་འབབ་གོ་མི་ཡིན།

ltag.ga.na char 'bab-gol-ni-i-red

outside rain fall-IPFV-NI-Q-COP.NON-EGO

'Is it raining outside?'

b. Non-prototypical use of EGO with non-second-person subjects

? ལྷག་ག་ན་ཆར་འབབ་གོ་མི་ཡིན།

ltag.ga.na char 'bab-gol-ni-i-yin

outside rain fall-IPFV-NI-Q-COP.EGO

Intended: '(Can you make the judgement with reduced certainty that)

Is it raining outside?'

This restriction stems from a fundamental pragmatic incompatibility. While these constructions in declarative contexts can express both epistemic judgment and reduced certainty through non-prototypical patterns, this dual function creates a logical conflict in questions. Interrogative CCS primarily seek the addressee's assertive judgment about a proposition; attempting to simultaneously anticipate reduced certainty toward that yet-to-be-expressed judgment creates an inherent contradiction. One cannot meaningfully inquire about the addressee's judgment while presupposing its reduced certainty.

5.5.3 Expressing negative affect

In contexts where the speaker shares a close relationship with the sentence subject, non-prototypical use of the EGO form can express the speaker's negative affect, particularly disapproval or criticism. This pragmatic extension emerges specifically in situations involving emotional distancing from intimates. Consider example (31), where the speaker invites a friend into their house and discovers their brother's room's door wide open, with cigarette butts and the lingering scent of smoke in the bedroom:

(31) a. བཀྲ་ཤིས་གིས་ད་ཆེག་དང་དོ་ལ་འཐེན་ནི་རེད།

bkra.shis gis da tshe.gang.nga do.la.'then-ni-red

Tashi ERG (it=smoke) everyday smoke-NI-COP.NON-EGO

'(I render a definitive assertive judgment that) Tashi (my brother) smokes everyday.' (Neutral statement)

- b. བཏཱ་ཤིས་གིས་དེ་ཚེ་གང་དུ་ལ་འཐེན་ནི་ཡིན།
bkra.shis gis da tshe.gang.nga do.la. 'then -ni -yin
 Tashi ERG (it=smoke) everyday smoke-NI-COP.EGO
 ‘(I render a judgment that) Tashi (my brother) smokes everyday.’
 (Disapproval)

Prototypical use of the NON-EGO form in (31a) delivers a neutral statement of fact. In contrast, the non-prototypical EGO form in (31b), while still encoding a judgment, additionally conveys the speaker’s emotional distancing and disapproval.⁴

However, this pragmatic extension is systematically blocked in interrogative contexts:

- (32) a. བཏཱ་ཤིས་གིས་དེ་ཚེ་གང་དུ་ལ་འཐེན་ནི་ཡིན་ཟེ།
bkra.shis gis da tshe.gang.nga do.la. 'then -ni -i -red
 Tashi ERG (it=smoke) everyday smoke-NI-Q-COP.NON-EGO
 ‘Does Tashi (your brother) smoke everyday?’
 b. ? བཏཱ་ཤིས་གིས་དེ་ཚེ་གང་དུ་ལ་འཐེན་ནི་ཡིན་ཡིན།
bkra.shis gis da tshe.gang.nga do.la. 'then -ni -i -yin
 Tashi ERG (it=smoke) everyday smoke-NI-Q-COP.EGO
 Intended: ‘Does Tashi (your brother) smoke everyday (and you don’t like it)?’

The unacceptability of (32b) stems from a fundamental pragmatic incompatibility in interrogative CCS. While these constructions in declarative contexts can express both epistemic judgment and emotional stance through non-prototypical use of the EGO form, this dual function creates a logical conflict in questions. Interrogative CCS primarily seek the addressee’s judgment about a proposition; attempting to simultaneously anticipate their emotional stance toward that yet-to-be-expressed judgment creates an inherent contradiction. One cannot meaningfully inquire about something while presupposing both the content and the emotional orientation of

⁴ The pragmatic extension of non-prototypical forms expressing negative affect may alternatively be analyzed through “affectedness”. Bergqvist and Knuchel’s (2017) continuum in egophoric marking systems – moving from agent to attitude holder – parallels observations in Golog Tibetan. When Golog speakers use non-prototypical egophoric forms with third-person subjects in close relationships, they may encode both epistemic stance and their position as affected participants. For instance, using non-prototypical EGO in ‘Tashi smokes everyday’ might communicate how the brother’s actions negatively impact the speaker. However, not all negative affect cases involve direct personal impact. Some express generalized disapproval without direct affectedness. This suggests that while affectedness is one dimension of these phenomena, the interaction between epistemic marking and emotional stance in Golog remains complex and requires further investigation.

the response. This explains why only the prototypical NON-EGO form, focusing solely on epistemic judgment, is acceptable in interrogative contexts like (32a).

5.5.4 Expressing irrealis situations

Similar to simple clauses, Golog Tibetan requires NON-EGO forms in irrealis contexts. This pattern emerges systematically across various irrealis environments, including dream narratives, counterfactuals, and hypothetical scenarios. Consider hypothetical scenarios where speakers explicitly mark content as contrary to reality:

- (33) གཤམ་ཏེ་ང་གོང་མ་ཟེག་ཡིན་མཁུ་ན། ང་གློང་མ་མང་ངེད་མཁུ་{ཟིང་/*ཡིན།}
gal.te nga gong.ma zig yin-rgyu na nga sgor.mo mang.nga
 if 1SG emperor CLF COP-RGYU COMP 1SG money many
*yod-rgyu-{red/*yin}*
 have-RGYU-{COP.NON-EGO/*COP.EGO}
 ‘If I were an emperor, I would have great wealth.’

This pattern extends to interrogatives, where NON-EGO forms enable speakers to inquire about addressees’ irrealis situations:

- (34) གཤམ་ཏེ་ཁྱེད་གོང་མ་ཟེག་ཡིན་མཁུ་ན། ཁྱེད་ཅི་ཟེག་ཡིད་མཁུ་{ཟིང་/*ཡིན།}
gal.te khyod gong.ma zig yin-rgyu na khyod chi.zig
 if 2SG emperor CLF COP-RGYU COMP 2SG what
*yed-rgyu-{red/*yin}*
 do-RGYU-{COP.NON-EGO/*COP.EGO}
 ‘What would you do if you were an emperor?’

To sum up, the distribution of EGO and NON-EGO forms and their interpretation in CCS demonstrate the interaction between construction-specific semantics and pragmatic effects in Golog Tibetan. The strategic deployment of EGO and NON-EGO marking in CCS enables speakers to express various epistemic stances and intersubjective positions while adhering to construction-specific constraints. Although these non-prototypical usages may not be readily elicited without context, native speakers comprehend their functions even with minimal contextual support, indicating their status as conventionalized extensions rather than ad hoc usage patterns.

This systematic yet flexible distribution raises a key theoretical question: How can a unified framework account for both the regular distribution and pragmatic versatility of EGO and NON-EGO marking? The following section proposes a

theoretical model that captures both the principled nature and seemingly disparate functions of these patterns.

5.6 A unified account of EGO and NON-EGO forms in Golog Tibetan

Our analysis has revealed that EGO/NON-EGO forms in Golog Tibetan can express a wide range of pragmatic meanings. Table 4 summarizes these diverse functions across different grammatical contexts:

Table 4: Pragmatic effects of EGO/NON-EGO marking in Golog Tibetan.

Construction	EGO	NON-EGO
Simple Clause		
<i>Declarative</i>		
1st subject	Prototypical (§5.3.1)	Surprise (§5.4.2.1) Irrealis (§5.4.2.2)
Non-1st subject	Asserted Certainty (§5.4.1.1) Intimacy/Closeness (§5.4.1.2)	Prototypical (§5.3.1)
<i>Interrogative</i>		
1st subject	<i>unattested</i>	Prototypical (§5.3.1)
2nd subject	Prototypical (§5.3.1)	Irrealis (§5.4.2.2)
3rd subject	Anticipated Certainty (§5.4.1.1) Anticipated Intimacy (§5.4.1.2)	Prototypical (§5.3.1)
CCS		
<i>Declarative</i>		
1st subject	Prototypical (§5.3.2) Unusual degree of control (§5.5.1.1)	Exceptional non-control (§5.5.1.2) Irrealis (§5.5.4)
Non-1st subject	Reduced certainty/Inferential reading (§5.5.2) Negative Affect (§5.5.3)	Prototypical (§5.3.2)
<i>Interrogative</i>		
1st subject	<i>unattested</i>	Prototypical (§5.3.2)
2nd subject	Prototypical (§5.3.2) Unusual degree of control (§5.5.1.1)	Irrealis (§5.5.4)
3rd subject	<i>unattested</i>	Prototypical (§5.3.2)

As evident from Table 4, non-prototypical uses of EGO/NON-EGO forms in Golog Tibetan can generate diverse pragmatic effects that initially appear heterogeneous. The NON-EGO forms, when used non-prototypically, can express meanings ranging

from surprise (Section 5.4.2.1), irrealis (Section 5.4.2.2), to exceptional non-control (Section 5.5.1.2). Even more intriguingly, the same form may produce seemingly contradictory effects across constructions: non-prototypical use of EGO forms conveys high degrees of certainty in simple clauses (Section 5.4.1.1), but inference and reduced certainty in CCS (Section 5.5.2).

This apparent heterogeneity raises a fundamental theoretical challenge: How can we provide a unified account for these diverse and sometimes seemingly contradictory functions? The following sections present a unified theoretical explanation of these seemingly disparate functions.

5.6.1 Dual-factor licensing of Golog EGO/NON-EGO forms

To account for its apparently heterogeneous functions, we propose that the distribution and interpretation of EGO/NON-EGO forms in Golog is governed by two interacting factors:

- (i) the origo's *epistemic authority* over the propositional content
- (ii) the (in)consistency between the expressed proposition and the origo's conceptual *schema*

5.6.1.1 Epistemic authority

We use *epistemic authority* to refer to the origo's entitlement to claim knowledge about an event or situation based on their involvement or access to that knowledge. This concept builds on previous notions of 'assertor involvement' (Creissels 2008) and 'epistemic source' (Hargreaves 2005), but explicitly incorporates the dynamic negotiation of epistemic rights in interaction (Heritage and Raymond 2005; Bergqvist 2012; Grzech 2020a, 2020b, 2021).

In Golog Tibetan, an origo with epistemic authority can make knowledge claims about a given proposition by virtue of their status as a knowing, validating subject. Conversely, when an origo disclaims or defers epistemic authority, this signals their lack of direct validation access or epistemic primacy regarding the proposition in question.

5.6.1.2 Schema

The concept of *schema* was introduced by Piaget (1923) and subsequently elaborated by Bartlett (1932) as a theoretical framework for understanding how

individuals organize and interpret information. A schema comprises organized patterns of thought that enable individuals to process and interpret information based on prior experience (Rumelhart 1980).

In the present study, we employ the term *schema* to refer to cognitive structures that represent an individual's understanding of the world, facilitating the organization and interpretation of new information through the lens of past experiences (Bartlett 1932; Neisser 1976). These mental frameworks function as anticipatory structures that predispose perceivers to accommodate certain types of information more readily than others.

According to this theoretical framework, schemas derive from direct experiential encounters with the actual world and are structured through empirical perception. As a result, irrealis expressions, which encode non-actualized or hypothetical situations, present an inherent incompatibility with schema-based processing precisely because they lack the empirical foundation that schemas require. While people subjectively experience mental phenomena like dreams, expectations, and wishes, and cultures develop interpretive frameworks for these experiences (Strauss and Quinn 1998), such mental states remain inconsistent with schemas in their epistemic status. The distinction lies in the absence of perceptual validation through direct experience in the actual world that characterizes schematic knowledge organization. Consequently, schema-based processing struggles to effectively integrate irrealis propositions into stable knowledge structures, as they resist assimilation with the origo's empirically validated knowledge systems.

In the context of Golog Tibetan, schema (in)consistency refers to the degree to which a proposition aligns with or deviates from the origo's established knowledge frameworks. Schema consistency indicates that the proposition represents information integrated within the origo's conceptual schema, situated within a shared epistemic space of mutually validated knowledge. Conversely, schema inconsistency signals that the propositional content has an uncertain or discrepant status – characterized by being external to, contradictory to, or not yet reconciled with the origo's schematic representation.

5.6.2 Explaining pragmatic extensions in simple clauses

In simple clauses, the interplay of epistemic authority and schema consistency directly determines the choice between EGO and NON-EGO forms according to the following principles:

- (35) Distribution of EGO and NON-EGO forms in simple clauses:
- a. The origo affirms their epistemic authority and asserts the proposition as integrated into and consistent with their conceptual schema. → **EGO**
 - b. The origo disclaims/lacks epistemic authority and/or encounters propositions that contradict, are inconsistent with, absent from, or not yet integrated into their knowledge schema. → **NON-EGO**

The interaction between these conditioning factors can be visualized in Table 5 (note that [+] indicates presence/assertion of the feature; [-] indicates absence/downgrading of the feature):

Table 5: Distribution of EGO and NON-EGO forms in Golog simple clauses.

Feature configuration	Marking choice
[+epistemic authority] and [+schema consistency]	EGO
[-epistemic authority] or [-schema consistency]	NON-EGO

This dual-factor model provides a unified framework for analyzing the distribution and interpretation of EGO and NON-EGO forms in simple clauses. Through examination of Golog data across different discourse contexts, we find that the interaction between epistemic authority and schema consistency generates predictable marking patterns while allowing principled pragmatic extensions.

5.6.2.1 Declaratives

In declaratives, with first person subjects, EGO forms emerge as the default because speakers typically possess epistemic authority over their own states of affairs, and the proposition *p* about the self is generally consistent with and integrated into their schema, as in (5a). Non-prototypical use of NON-EGO forms in this context either disclaims authority or signals a discrepancy between the proposition *p* and the speaker's schema (*p*-schema discrepancy). This explains the expression of surprise in contexts like (19), where the new information *p* has not yet been integrated into the speaker's established knowledge schema. It also explains the obligatory use of non-prototypical NON-EGO forms in irrealis contexts such as (21), where the propositional content fundamentally contradicts or remains inconsistent with the speaker's schema.

With non-first-person subjects, NON-EGO forms are the default, as in (5b). This stems from the speaker's typical lack of epistemic authority over others' states of

affairs, and the proposition *p* is not required to be in the speaker's schema. The non-prototypical use of EGO forms in these contexts highlights the deliberate assertion of epistemic authority and the consistency between proposition *p* and the speaker's schema (*p-schema* consistency), which typically occurs when speakers have intimate relationships with the subjects (17) or possess heightened certainty about *p* (15).

5.6.2.2 Interrogatives

In interrogatives, perspective shifts from the speaker to the addressee. With second-person subjects, EGO forms are the default, as in (6a), encoding the addressee's presumed epistemic authority regarding their anticipated response and the expected congruence between that response and their established schema. Non-prototypical use of NON-EGO forms in this context index anticipated inconsistency between the proposition of the addressee's answer and the addressee's schema, particularly salient in irrealis contexts like (22), where the proposition inherently conflicts with reality-anchored schemas.

In first-person subject interrogatives, NON-EGO forms are the default, as in (6b), reflecting the inherent schema discrepancy involved in questioning one's own state of knowledge. Non-prototypical usages remain unattested in this context, likely due to the inherent pragmatic incompatibility between information-seeking acts and simultaneous claims of schema integration.

In third-person subject interrogatives, NON-EGO forms are the default, as in (6b), because addressees typically lack epistemic authority over others' states of affairs, and *p-schema* consistency of the addressee is not presupposed. Non-prototypically used EGO forms, highlighting anticipated presumed epistemic authority and *p-schema* consistency of the addressee, normally arises when answerers are expected to have heightened certainty about the proposition *p* of their own answer (16) or are presumed to have intimate relationships with the sentence subject (18).

5.6.2.3 Interaction of epistemic authority and schema consistency

A crucial theoretical insight in our analysis is that epistemic authority and schema consistency function not as independent variables, but as interacting conditions that jointly govern the choice between EGO and NON-EGO forms in Golog Tibetan. The necessity of satisfying both conditions simultaneously can be demonstrated through empirically revelatory scenarios that isolate these factors.

Consider first the institutional medical context of COVID-19 mass screening, where asymptomatic individuals were diagnosed through mandatory surveillance testing rather than self-initiated medical consultation:

- (36) ཁྱེད་ལྷན་གསར་རྒྱུ་ཚད་ཉོག་ཡོད་ལྟ།
khyod prog.gsar.glo.tshad hog yod.khu
 2SG COVID-19 get/afflict have.NON-EGO
 ‘You have COVID-19.’

This context is particularly revelatory because it unambiguously establishes the doctor’s epistemic authority: the medical professional operates within a formal testing protocol as the sole source of diagnostic information, and crucially, the diagnosis is not precipitated by any patient self-assessment. Despite this clear epistemic authority, the NON-EGO form *yod.khu* is used. This occurs precisely because the proposition represents a newly reached conclusion based on the current diagnosis, not yet integrated into the doctor’s established schema. The use of the NON-EGO form thus signals this discrepancy between the proposition and the doctor’s established schema, demonstrating that epistemic authority alone cannot license the EGO forms.

Conversely, the long-term classmate scenario in (37) demonstrates that schema consistency alone is insufficient to trigger the EGO form without corresponding epistemic authority:

- (37) བཤཱ་ཉིས་ནི་སློབ་མ་ཟིག་རེད།
bkar.shis ni slob.ma zig red
 Tashi TOP student CLF COP.NON-EGO
 ‘Tashi is a student.’ (The speaker lacks authority despite knowing this for years)

Here, after years of shared academic experience, the proposition ‘Tashi is a student’ is thoroughly integrated into the speaker’s knowledge schema. Despite this well-established schema consistency, the speaker normally would use the NON-EGO form *red* because they lack the epistemic authority to make definitive assertions about another’s academic status. This example demonstrates that schema consistency, even when well-established through long-term direct experience, cannot alone license the EGO form without corresponding epistemic authority.

These complementary scenarios (one with clear epistemic authority but lacking schema consistency, another with established schema consistency but lacking epistemic authority) demonstrate that the distribution of EGO versus NON-EGO forms in Golog simple clauses requires the simultaneous satisfaction of both conditions. If

either factor is absent, the NON-EGO form is used, regardless of the strength of the other factor. This systematic interaction between epistemic authority and schema consistency provides a unified explanation for the distribution of EGO/NON-EGO marking across diverse discourse contexts in simple clauses.

5.6.3 Explaining pragmatic extensions in CCS

The distribution and interpretation of EGO/NON-EGO forms in CCS reveal a fundamental difference from simple clauses in how epistemic authority and schema consistency determine form choice. This difference arises from the distinct nature of the two construction types.

Simple clauses serve purely as vehicles for propositional content without encoding any inherent construction-specific semantics. In these clauses, the presence of epistemic authority and schema consistency directly determines marking patterns: when speakers possess both factors, they select EGO forms to explicitly encode these epistemic-schematic properties.

CCS, in contrast, inherently encode a specific constructional meaning: the origo's definitive judgment regarding propositional content. The very act of rendering a definitive judgment necessarily presupposes both epistemic authority (the right to make such a judgment) and schema consistency (the integration of propositional content into one's knowledge framework). Therefore, the constructional meaning itself, regardless of person marking, already encodes the presence of these epistemic-schematic factors.

This fundamental difference leads to different principles governing form choice. In simple clauses, where there is no inherent epistemic-schematic meaning, EGO/NON-EGO directly encodes the presence or absence of epistemic-schematic factors. However, in CCS, since judgment-encoding semantics is inherent, form choice serves a different function: it must reflect the established patterns that have become conventionally associated with expressing definitive judgment. This results in the selection of prototypical marking patterns rather than a direct mapping from epistemic-schematic factors to specific forms. We can formalize this distinction as follows:

(38) Distribution of EGO and NON-EGO forms in CCS

- a. The origo affirms their epistemic authority and asserts the proposition as integrated into and consistent with their knowledge schema. → **prototypical marking** (full realization of constructional meaning)
- b. The origo disclaims/lacks epistemic authority and/or asserts schema inconsistency. → **non-prototypical marking** (extended pragmatic meaning)

This systematic difference in how epistemic-schematic factors determine form choice is illustrated in Table 6 (note that [+] indicates presence/assertion of the feature; [-] indicates absence/downgrading of the feature):

Table 6: Distribution of EGO and NON-EGO forms in Golog CCS and simple clauses.

Feature Configuration	CCS	simple clause
[+epistemic authority] and [+schema consistency]	prototypically used EGO/NON-EGO	EGO
[-epistemic authority] and/or [-schema consistency]	non-prototypically used EGO/NON-EGO	NON-EGO

When speakers deviate from prototypical marking patterns in CCS, they generate distinct pragmatic effects that arise from the interaction between non-prototypical marking and the construction’s core function of expressing definitive judgment – effects that differ significantly from those found in simple clauses.

5.6.3.1 Declaratives

In declarative CCS, the interaction between epistemic-schematic factors and construction-specific semantics generates certain marking patterns. When speakers possess both epistemic authority and schema consistency, they employ prototypical marking to fully realize the construction’s judgment-encoding function. When either factor is manipulated, non-prototypical marking generates pragmatic effects through its interaction with constructional meaning.

When the factor of epistemic authority is manipulated, three primary patterns emerge. First, speakers can deliberately assert heightened epistemic authority in contexts typically associated with non-controllable events. This manipulation generates pragmatic effects expressing unusual volitional control over normally uncontrollable propositions, as demonstrated in example (23), where deliberate falling is encoded. Conversely, with verbs encoding volitional control, speakers can deliberately suppress epistemic authority to override inherent semantics and express non-controllable interpretations, as illustrated in example (26b). Second, in contexts where speakers lack direct evidence, diminished epistemic authority results in inferential or reduced certainty readings. Example (28b) demonstrates this pattern, where indirect sensory access necessitates marking reduced epistemic authority through non-prototypical form choice. Third, in contexts involving close interpersonal relationships, deliberate suppression of epistemic authority – particularly regarding individuals about whom the speaker could legitimately claim

authority – generates emotional distancing effects. This manipulation conveys negative affect or disapproval, as shown in example (31b).

Violations of schema consistency manifest most clearly in irrealis contexts, where propositions conflict with reality-based knowledge structures. These contexts, including hypothetical scenarios, dream narratives, and counterfactual situations, require non-prototypical marking due to their inherent incompatibility with established schemas, as exemplified in (33).

5.6.3.2 Interrogatives

In interrogative CCS, the perspective shift from speaker to addressee interacts with the construction's judgment-encoding semantics to generate both systematic pragmatic effects and distributional constraints. These patterns manifest differently across person configurations.

For second-person subjects with controllable events, the prototypical use of EGO forms appears when speakers anticipate that addressees can render authoritative judgments. Non-prototypical use of NON-EGO forms emerges primarily in irrealis contexts example (34), where propositions conflict with addressees' knowledge schemas. With non-controllable events, speakers employ non-prototypical EGO forms when seeking confirmation of unexpected volitional control, as demonstrated in example (25).

First-person interrogatives exhibit a categorical restriction against non-prototypical marking. This constraint may stem from the semantic incompatibility between asking for information and simultaneously having the epistemic authority to judge this information.⁵

Similarly, interrogative CCS with third-person subjects using non-canonical forms are not attested. This restriction likely stems from pragmatic constraints on making anticipatory inquiries about the addressee's subtle emotional and epistemic stances toward yet-to-be-expressed judgments.

⁵ The editors and one of the SLE-56 attendants raised a question about egophoric marking patterns in rhetorical interrogatives. They consider rhetorical questions interesting because the speaker is actually the epistemic authority and does not intend the hearer to answer it (unlike information questions). The results from rhetorical questions can potentially reveal to us whether egophoric marking is determined by grammatical form or pragmatic factors. Unfortunately, rhetorical questions in Golog Tibetan have dedicated grammatical markers distinguishing them from genuine interrogatives, placing them outside our current analysis.

In sum, although the distribution and interpretation of EGO and NON-EGO forms vary significantly between simple clauses and CCS, both environments are fundamentally governed by epistemic authority and schema consistency. In simple clauses, these factors directly determine form choice, while in CCS, they interact with the construction's judgment-encoding semantics. The distinct distributions and interpretations thus emerge not from different conditioning mechanisms, but from how these dual factors manifest through construction-specific meanings.

5.6.4 Explaining person-sensitive patterns

While our dual-factor model does not treat grammatical *person* as a primary conditioning factor, it provides a principled explanation for the apparent person-sensitive patterns of EGO/NON-EGO marking in Golog Tibetan. These patterns emerge from the conventionalization of typical correspondences between *person* and the two licensing factors: epistemic authority and schema consistency.

In simple clauses, first person declarative and second person interrogative subjects prototypically correlate with asserted epistemic authority and schema consistency, favoring EGO forms. Other person-perspective alignments typically suggest reduced authority or *p*-schema discrepancy, favoring NON-EGO forms. These conventionalized associations between person and epistemic-schematic values give rise to the overall person-sensitive distribution without *person* itself being the determinative factor.

In CCS, the person-sensitive pattern exhibits less flexibility than in simple clauses due to the constructions' inherent judgment-encoding semantics. The construction's fundamental function of expressing definitive judgment inherently requires positive values of both epistemic authority and schema consistency. Through conventionalization, this requirement has led to prototypical person-marking becoming the established means of expressing the construction's core meaning – only prototypical usage fully instantiates the positive epistemic-schematic values necessary for definitive judgment. The prototypical pattern thus comes to iconically signal the complete realization of judgment-encoding semantics, while non-prototypical pattern generates specific pragmatic effects by deviating from these conventionalized epistemic-schematic associations.

This theoretical framework thus captures both the systematic nature of person-sensitive patterns and their pragmatic flexibility across different constructional environments.

5.7 Conclusion

This study has presented an analysis of EGO/NON-EGO marking in Golog Tibetan, offering novel insights into the interaction between epistemic marking systems, clausal structure and constructional meaning. Through examination of both simple clauses and complex copular structures (CCS), we demonstrate that the distribution and interpretation of EGO and NON-EGO forms in Golog is fundamentally governed by two interacting factors: the origo's epistemic authority over the propositional content and the (in)consistency between the expressed proposition and the origo's conceptual schema.

This dual-factor model provides a unified theoretical framework that captures both the systematic distribution and pragmatic flexibility of EGO and NON-EGO forms across diverse grammatical contexts. In simple clauses, these factors directly condition the choice between EGO and NON-EGO forms, giving rise to implicatures such as asserted certainty, surprise, and irrealis meanings. In CCS, they interact with the conventionalized construction-specific semantics to produce distinct pragmatic effects when non-prototypical forms are employed, revealing complex interactions between grammatical structure and pragmatic function.

This analysis further reveals that the overall person-sensitive patterns associated with EGO/NON-EGO marking actually emerge from the conventionalization of typical associations between *person* and the “*epistemic authority + p-schema consistency*” values, rather than *person* being a direct conditioning factor. This approach maintains the conceptual unity of EGO/NON-EGO marking across clause types while accounting for the constructional diversity in its pragmatic extension.

The findings carry several theoretical implications. First, the dual-factor model extends beyond traditional accounts of epistemic stance (e.g., Aikhenvald 2004; Boye 2012; Grzech 2021) by explicitly incorporating the role of cognitive schemas in the linguistic encoding of perspective. This integration provides a novel framework for understanding how speakers negotiate epistemic rights in interaction, suggesting that speakers are concerned not only with asserting or disclaiming knowledge, but also with signaling how that knowledge fits into their broader conceptual understanding of the world.

Second, the analysis demonstrates the crucial role of constructional semantics in shaping the interpretation of EGO and NON-EGO forms. The distinct behavior of these forms across simple clauses and CCS demonstrates how construction-specific meanings systematically constrain and shape pragmatic interpretation. This finding underscores the importance of considering construction-specific meanings in the analysis of epistemic categories, aligning with recent calls for more fine-grained, construction-based investigations of perspectival phenomena in language (Bergqvist 2016, 2017; Evans, Bergqvist, and San Roque 2017).

From a broader perspective, the dual-factor model suggests important cognitive underpinnings, bridging linguistic structure and cognitive processing. The notion of epistemic authority resonates with research on metacognition and epistemic vigilance (Sperber et al. 2010), while the schema consistency factor aligns with theories of predictive processing and schema theory in cognitive science (e.g., Reisenzein, Meyer, and Niepel 2012; Clark 2013; Ghosh and Gilboa 2014). This connection illuminates potential pathways through which linguistic structures both reflect and potentially shape cognitive processes of knowledge organization and update.

The investigation of EGO and NON-EGO marking in Golog Tibetan not only contributes to our understanding of these forms in Golog and Tibetan languages but also reveals fundamental insights about how languages encode complex epistemic relationships. The interplay between epistemic authority, schema consistency, and constructional meaning demonstrates that epistemic marking patterns arise not from arbitrary rules but from principled cognitive and pragmatic factors. This research underscores the complexity and subtlety of epistemic markings, highlighting the need for integrative approaches that can account for the multifaceted nature of linguistic phenomenon like EGO and NON-EGO marking. It contributes to the ongoing dialogue between linguistics elements and cognitive processes in the study of human communication.

Abbreviations

1	first person
2	second person
3	third person
CLF	classifier
COMP	complementizer
CONJ	conjunction
COP	copula
EGO	egophoric
ERG	ergative
EVI.SEN	sensory evidential
F	feminine
FUT	future
GEN	genitive
INTJ	interjection
IPFV	imperfective
LOC	locative
M	masculine
NEG	negative

NON-EGO	non-egophoric
PFV	perfective
Q	question particle
TOP	topic

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Part 2: **Change and development
of epistemic meanings**

Karin Aijmer

6 *Maybe* or *perhaps*? – A corpus-based study of an on-going change in Present-day English

Abstract: The present article investigates recent changes in the frequency and functions of *maybe* and *perhaps* based on a comparison of their uses in corpora at two different periods of time. It is shown that the adverbs are used differently to express neutral support (possibility) in the Spoken BNC2014S than in the demographic component of the British National Corpus. *Maybe* is more frequent with a modal function (especially in initial position) where it presents something from the speaker's perspective. *Perhaps* is increasingly exploited for the response-inviting function. Independent of function and position *maybe* is used more frequently than *perhaps* in the Spoken BNC2014S. The changes in the frequency of *maybe* over a short time are attested in all age groups of the speakers with a frequency peak for younger speakers. An interesting observation is that *maybe* is used primarily by female speakers in the Spoken BNC2014S.

Keywords: corpus, language change, modality, adverbs, variation

6.1 Introduction

The trigger for the present study was my observation based on corpora that the epistemic modal adverb *maybe* is increasing in frequency in present-day English. The frequency of *maybe* was also higher than that of the synonymous *perhaps* with which it is in competition.

This suggested that it would be interesting to investigate recent changes in the frequency and functions of *maybe* and *perhaps* based on their uses in actual interaction at two different periods of time. The existence of 'synonyms' is not a new phenomenon but has been discussed as a result of layering in language (Hopper 1991). Thus, when a new competing lexical element emerges, the old word does not disappear but remains in circulation. *Maybe* and *perhaps* have the same core meaning from which new discourse functions can be developed in a regular way. However, their discourse functions may be affected by their competition about the

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space in the functional domain they occupy. Specifically, they are expanding their territory over time intruding into contexts dominated by another variant or they are pushed out from the functional niche they occupy.

Based on previous research, the functions of *maybe* and *perhaps* will be compared with regard to the following factors:

- *maybe* and *perhaps* in different positions in the utterance
- co-occurrence with elements strengthening the subjectivity of the modal adverbs
- combinations of *maybe* and *perhaps* with modal auxiliaries in indirect speech acts (requests, suggestions)

The investigation can be expected to bring new light on the development of the uses of *maybe* and *perhaps* involving the speaker's and the hearer's role in the interaction. An additional aim is to consider the influence of the age and gender of the speakers on the frequency and use of the adverbs and the social meaning of the emergent new uses.

The outline of this paper is as follows. Section 6.2 situates the present study in the context of previous research on *maybe* and *perhaps*. In Section 6.3 I will describe the corpora and the methodology used to study similarities and differences between the adverbs. Section 6.4 presents the findings of the quantitative and qualitative analysis of the two datasets.

In the qualitative analysis the rising frequency of *maybe* and the shrinking usage of *perhaps* in the Spoken BNC 2014 are discussed with regard to the factors: position in the clause, co-occurrence with other modal elements, pragmatic usage in speech acts and occurrence in questions with engagement meaning (reflected in their response-indicating or attenuating function). Section 6.5 contains a sociolinguistic analysis of the changes based on the information about the age and gender of the speakers. Section 6.6 summarizes the findings of the investigation.

6.2 Previous research

Maybe and *perhaps* express epistemic modality. Most typically, epistemic modality is realized in language by modal auxiliaries. Studies of modal adverbs have mainly focused on adverbs expressing certainty (see e.g. Simon-Vandenberghe and Aijmer 2007 and the references there). In comparison, the description of epistemic modal adverbs expressing greater uncertainty has been relatively neglected. The starting point in this section is therefore to investigate how *maybe* and *perhaps* would be categorized in general accounts of epistemic modality. Boye (2012) provides a framework which is aimed

at describing epistemic modal systems in many languages. In his opinion, epistemic modal elements can express different degrees of support on an epistemic scale. The adverbs *maybe* and *perhaps* have the weak meaning ‘epistemic possibility’ corresponding to neutral support referring to the endpoint on a scale where the other endpoint is full support (total certainty). The notion of neutral support “is taken to cover meaning glossed with ‘(epistemic) possibility’, but also meanings that can be characterized as representing complete ignorance, complete uncertainty, complete lack of knowledge, or the like” (Boye 2012:25).

The descriptions of *maybe* and *perhaps* in reference grammars are compatible with this analysis. Quirk et al. (1985:620) classify *maybe* and *perhaps* as content disjuncts with the function of commenting on the degree of doubt associated with the truth of the proposition. In Biber et al. (1999) they have been regarded as stance adverbials expressing the speaker’s doubt regarding the message (Biber et al. 1999:867).

Suzuki (2018) is of particular interest for the present study because it describes the variation between *maybe* and *perhaps*. Her aim is to investigate the uses and frequency distribution of what she refers to as two ‘low confidence’ adverbs in the British National Corpus situating her study within the tradition of language variation and change. The quantitative analysis shows that the frequency of *perhaps* is higher than that of *maybe* in both speech and in writing and that *perhaps* is remarkably prevalent in the written component of the British National Corpus.

The qualitative analysis of the data suggests that the meanings of *maybe* and *perhaps* are sensitive to contextual factors such as the kind of register, the kind of NP chosen as the subject in *maybe/perhaps* clauses, the kind of modal verb used in the same clause and the position occupied by the modal verb and that the differences between them could be explained by taking into account intersubjectification and grammaticalization (Suzuki 2018:392). Suzuki concludes that *perhaps* is more grammaticalized than *maybe* because it is used in more contexts to perform a wider set of functions. According to Suzuki (2018:405), “epistemic modality can underlie the adverb in its essence, but is reinterpreted for a broad functional domain that is more general” (Suzuki 2018:10).¹ She also observes “an interesting shift as regards the use of *maybe* and *perhaps* from expressing the speaker’s mental attitude” in their initial position to intersubjective uses in the final position of the utterances paying more attention to the addressee (Suzuki 2018:10).

¹ The functional domain of weak epistemic possibility (neutral support) also includes *possibly* and *conceivably*. Specifically, Suzuki and Fujiwara (2017) compare *conceivably* with *perhaps*. López-Couso and Méndez-Naya (2016) trace the history of *maybe*. In a later study they discuss the sources and development of *perhaps* and other ‘happenstance’ adverbs (López-Couso and Méndez-Naya 2023).

6.3 Methodology

The short-term diachronic changes undergone by *maybe* and *perhaps* can be investigated by contrasting the frequencies and uses of the adverbs in the Spoken BNC2014 with their uses in the traditional BNC compiled in the 1990s (Love et al. 2017). The corpora have been collected using similar (but not identical) methods and they have been designed in similar ways.² For the present study I have used the ‘sample or early access corpus’ of the Spoken British National Corpus (Spoken BNC2014S) because it is comparable to the demographic component of the BNC1994 (BNC1994DS). The corpora have approximately the same size (5 million words) and the data consist of informal conversations between friends or family members. The starting point for the present study is that we now have the possibility to investigate the interaction between *maybe* and *perhaps* using corpora from two different periods of time in present-day English. From a short diachronic perspective, we can, for example, compare the functions of *maybe* and *perhaps* in BNC1994DS with their uses in the Spoken BNC2014S. Using data from one of the corpora only we can describe differences and similarities between *maybe* and *perhaps* at a single period of time. In addition, we can describe the speakers using the adverbs based on the meta-linguistic information provided about their age and gender in the corpora.

The methodological procedure is as follows. Comparable samples of 200 tokens of *maybe* and *perhaps* have been collected from the corpora. The occurrences of the adverbs have been annotated with respect to the items they collocate with, position in the utterance, discourse function and utterance type (assertion or question). The focus is on discussing the variation between *maybe* and *perhaps* in the Spoken BNC 2014S from a quantitative and qualitative perspective and to make a comparison with data from the BNC1994DS when it is relevant.

6.4 Results

6.4.1 The frequencies of *maybe* and *perhaps*

The overall frequencies of *maybe* and *perhaps* change dramatically over the twenty years elapsing between the compilation of the two BNC corpora. See Table 1.

² An innovative feature of the Spoken BNC2014 is, for example, the use of ‘public participation in scientific research’ for data collection. The contributors use smartphones to gather the data. In the BNC1994, on the other hand, the contributors use analogue recording devices.

Table 1: The frequency of *maybe* and *perhaps* in BNC1994DS and the Spoken BNC2014S.

	Maybe		Perhaps	
	Raw frequencies	Per million words	Raw frequencies	Per million words
BNC1994DS	990	197.421	1,040	207.392
Spoken BNC2014S	4,062	848.214	389	81.230

In BNC1994DS *perhaps* is more frequent than *maybe* which is to be expected based on previous studies (Suzuki 2018). However, *maybe* increases in frequency from 990 tokens in BNC1994DS to more than 4000 occurrences in the Spoken BNC2014S, while *perhaps* declines in frequency during the same time. With regard to relative frequencies, *perhaps* is used in 87.4% of the cases in BNC1994DS while 12.6% of the cases are *maybe*. In the Spoken BNC2014S 91.3% of the occurrences are *maybe* to be compared with *perhaps* in 8.7% of the cases. Another observation we can make is that the number of examples containing either *maybe* or *perhaps* is higher in the Spoken BNC2014S than in BNC1994DS. We can conclude from this that the changes in the frequency over time cannot be explained only as a rise in the frequency of *maybe* making up for the declining frequency of *perhaps*.

In the next section I will describe the functions *maybe* and *perhaps* in different positions of the utterance based on samples of 200 words from both corpora.

6.4.2 The position of *maybe* and *perhaps*

Modal adverbs can be placed in different positions in the utterance depending on their function in the discourse (see e.g. Beeching and Detges 2014, Hancil, Haselow and Post 2015, Van Olmen and Šinkuniene 2021). According to Beeching and Detges (2014), there is a tendency for elements at the utmost left position of a discourse unit (the left periphery) to have discourse-organizing functions and for elements in the utterance-final (right periphery) position to be more concerned with modalizing (stance, subjective and intersubjective’ qualities (Beeching and Detges 2014:18).

The different positions in which *maybe* and *perhaps* are placed are as follows:
Initial position

- (1) **maybe** in a way the heightened bit is the bomb

Medial position

- (2) there ‘s **perhaps** an element of jealousy there too

Final position

- (3) then we can get one at the same time **maybe**

Both adverbs may also be used alone in the answer to a question.

- (4) S0024:I do n't know what are they ?
S0144: I do n't know
S0024: that looks like something does it ?
S0144: **maybe**
S0024: it might be something (.) we should set off and have a look ?³

In the 'other' category the adverbs are used with a phrase in their scope. In (5)–(7) the adverb qualifies the phrase only:⁴

- (5) S0058:oh right (.) well --UNCLEARWORD I I --UNCLEARWORD actually I had my iPod on this morning which I do n't I do n't normally do (.) it 's so nice having an iPod with an actual battery like I really think that for **maybe an hour** now the battery 's still full it 's so odd
- (6) S0041: and as of as a rule I 'm sure he 's actually got the phone number **perhaps not this one** but certainly the one before
- (7) S0383: he 's probably like thirty something
S0328 yeah **maybe like thirty-five**

The hypothesis that there is a functional asymmetry between *maybe* and *perhaps* in the left and right periphery can be explored based on their occurrences in the Spoken BNC2014S. Table 2 shows the frequencies of *maybe* and *perhaps* in different positions in the Spoken BNC2014S.

Table 2: Position of *maybe* and *perhaps* in the utterance in a sample of 200 words in the Spoken BNC 2014S.

	Initial		Medial		Final		Alone		Other	
<i>maybe</i>	121	60.5%	28	14%	12	6%	21	10.5%	18	9%
<i>perhaps</i>	89	44.5%	46	23%	35	17.5%	10	5%	20	10%

³ All the examples are taken from the Spoken BNC21014S.

⁴ Rozumko (2022) describes the functions of *perhaps* before a phrase as a linking device having uses such as exemplification, clarification, reformulation.

The quantitative analysis shows that both *maybe* and *perhaps* are most frequent in initial position and that *maybe* is more frequent than *perhaps* here. In the medial and final position, *perhaps* is more common than *maybe*.

If there is a diachronic development, it is in the direction of a move of the adverb (or the pragmatic markers) from the left to the right periphery (see Beeching and Detges 2014:7).

Table 3 shows the frequencies of *maybe* and *perhaps* in different positions in BNC1994DS:

Table 3: Position of *maybe* and *perhaps* in the utterance in a sample of 200 words in BNC1994DS.

	Initial		Medial		Final		Alone		Other	
<i>maybe</i>	125	62.5%	24	12%	14	7%	29	14.5%	8	4%
<i>perhaps</i>	141	70.5%	33	16.5%	14	7%	10	5%	2	1%

In terms of change, the relative frequency of *perhaps* in initial position has decreased over time from 70.5% in BNC1994DS to 44.5% in the Spoken BNC2014S while it is becoming relatively more frequent in medial and final position supporting Beeching and Detges' hypothesis that the direction of the move is from the left to the right periphery. On the other hand, the changes undergone by *maybe* over a short time are only marginal.

To sum up, the quantitative analysis shows that both *maybe* and *perhaps* are most frequent in initial position and that *maybe* is more frequent than *perhaps* here. In the medial and final position, *perhaps* is more common than *maybe*. *Perhaps* has moved its position from initial to medial and final over time. It can be concluded from this that position has an important role for how *maybe* and *perhaps* are interpreted. The following sub-sections will discuss the functions of the adverbs in different positions in more detail.

6.4.3 The functions of *maybe* and *perhaps* in initial position

Maybe and *perhaps* have the epistemic core meaning of neutral support. In the communication situation they have the function of presenting a hypothesis thereby implying that there are more alternatives. The explanation proposed here takes into account that *maybe* and *perhaps* have the property not shared by other modal adverbs that they can signal that there are several dialogic alternatives even if these are not explicit (cf. Rozumko 2022:19; see also Tasmowski and Dendale (1984)

for a related proposal. Because of their ability to refer to alternative possibilities or hypotheses *maybe* and *perhaps* are useful devices in conversation where the speaker wants to open up the conversational space to more than one possible hypothesis for consideration by the other conversational partners. However, in general, only one alternative is presented:

- (8) S0262: he 's related
 S0303: >>oh that makes it a bit less weird
 S0262: yeah
 S0303:I thought I cos I did n't understand what was going on and I just thought that
 S0262: >>I do n't really understand it myself
 S0303: >>**maybe** he somehow tracked down your dad somehow and

The speakers are talking about a common acquaintance who is doing research in genealogy. He has now found out that S0262 has a half-sister which she finds difficult to understand. Speaker S0303's hypothesis is that 'he somehow tracked down your dad'. Other alternatives are not excluded although this alternative is presumably the best one. Weak epistemic modal elements introducing an alternative or hypothesis in the interaction have also been regarded as falling under the label of evidentiality and have been classified as belonging to a sub-type of inferring (or inferred/assumed) (Dendale 2020:46). This means that the conclusions obtained are not necessarily true, but they are plausible or likely and give rise to 'quasi-assertions' (Dendale 2020). In (9), it is, for example, possible that 'he did not track down your dad'. Some evidence for such an interpretation also comes from cases where *maybe* and *perhaps* indicate that there are several alternatives.

In (9)-(11) *maybe* is used by the speaker to introduce several alternatives or hypothetical outcomes which are considered possibilities. The reasons for the hypothetical assertions can be found in the evolving communication situation or they are based on general knowledge. *Maybe* is a useful device in the conversation when the speaker wants to show that she is open to many different alternatives:

- (9) S0115: does n't agree with you
 S0037: does n't agree with us (.) I was gon na buy some at the shop today
 S0115: >>it 's good (.) is it just squid ? It 's strange that it 's just squid though
 S0037: I know I wonder what it is (.) maybe I can maybe I can try and desensitize myself

S0115: >>it it means that we ca n't buy you know packs of uh frozen seafood or other types of seafood mixes b- they s- they tend to have them them wan-bits of squid in

S0037: >>seafood mix (.) I know (.) **maybe** I could just try (.) **maybe** I could just eat them and just hope for the best.

- (10) S0037: yeah I 've got the day off before the August bank holiday (.) I 've got the Friday beforehand

S0115: alright so that 's a possibility then that one (.) but a similar thing would also happen on Easter and probably we might be you might be able to swap or something someone could swap for one for of the other w- but w- like we 're more flexible than

S0037: what d' you mean ?

S0115: we 're more flexible than than that I mean (.) I I doubt that they 're only going one one you know

S0037: >>no but what 's not this (.) yeah but **maybe** that 's the only time that they 're all going together (.) **maybe** like like Phil 's kids might be going to their mum 's or something

- (11) S0086: she 's got a lot of lines yeah

S0041: yeah

S0086: she should be getting the old Olay out (.) that 's what you need

S0041:yeah

S0086: em yeah she did have lines

S0041: she looked She looked old

S0086: yeah I mean **maybe** she 's tired (.) **maybe** the kids are young and **maybe** she 's having to get up with the kids (.) I do n't ever have to do that which is good

In (9) the speaker does not know if the packet of frozen seafood mix contains squid (which disagrees with her). She moves from one alternative (maybe I could try) to another alternative (maybe I could eat them and hope for the best) in the conversation. The topic discussed in (10) is whether it is a good idea for the participants in the conversation to visit their friends during the August bank holiday. Speaker 0037 has got the day off before the holiday which makes this an alternative but Easter would be another possibility. Speaker S00037 proposes that that time they are all going away and that Phil's kids may go to their mum. However, these proposals are only hypotheses making it possible for the speaker to show that she is not committed to a particular action. In (11) the speaker's hypothetical assertion that she is tired competes with other possible explanations why she has lines on

her face, for example that she has small kids and that she has to get up with the kids. However, these proposals are only hypotheses presented from the speaker's point of view.

The alternatives considered can also be contradictory as illustrated by the following corpus example:

- (12) S0320: that 's your house (.) that 's your view just straight onto the water
 S0322: yeah
 S0320: unbelievable
 S0322: mm
 S0320: erm what to read before you go ?
 S0322: yeah yeah gon na read
 S0320: murder mysteries in --ANONplace before you go ?
 S0322: >>they wo n't be my cup of tea but
 S0320: **maybe maybe not** the best thing to read

The speakers have been talking about the author Donna Leon whose murder mysteries take place in Venice. Speaker S0322 is going to read her mysteries before he goes to Venice. According to Speaker S0320 these are maybe not the best thing to read leaving it open that there are alternatives.

To summarize, in their epistemic meaning *maybe* and *perhaps* have been described as covering neutral support (the absence of both negative and positive support). From an interactional perspective the speaker uses *maybe* and *perhaps* to present something as a possibility or alternative based on deduction. Attention has been drawn to examples where *maybe* and *perhaps* introduce alternative hypotheses which can be understood on the basis of the context and the speakers' shared knowledge.

Maybe and *perhaps* also co-occur with *I think* reinforcing that what is said is a hypothesis by the speaker. *I think* is clearly subjective because it contains a reference to the subject and because it refers to the speaker's attitudes. In initial position it is used for emphasis and not for downtoning. According to Kärkkäinen (2006), "the starting-point function of *I think* is to routinely bring in the speaker's personalized perspective in the discourse at a given point." The reason may for instance be to mark a boundary in the discourse or 'to display that the upcoming turn will contain a new or different perspective to what was said in the prior turn' (Kärkkäinen 2003:171; quoted from Butler (2008:57)). Together with *maybe* or *perhaps* it reinforces the hypothesis presented treating it as the best alternative.

In (13)-(16) the neutral support meaning of *maybe* and *perhaps* is strengthened in the combination with *I think* in initial position:

- (13) S0200: what I was going to say but the thing is is there 's five of us looking at a four bedroom house
 S0188: I 've thought of this like what are we gon na say if they you ca n't share a room
 S0200: **I think maybe** one of us should go and the other one should stay
- (14) S0423: but I do n't understand why erm why do the get to France and want to go to England because
 S0421: maybe they 're
 S0423: >> what 's wrong with staying in France ?
 S0421: >> **I think maybe** the help they get is n't as good
- (15) S0013: >> well I thought you 'd forgotten where you were you know on the behind the workbench
 S0012: oh yeah
 S0013: I think that 'll look nice
 S0012: yeah yeah
 S0013: and **I think perhaps** you need to seal in that stuff a bit
- (16) S0251: and my education so that you know the benefit trickles down the generations
 S0252: yes **I think perhaps** books are a bit more of a a tricky aspect I suppose one thing is erm everyone well most people would have the ability to be able to write a book but it 's

The examples have in common that *I think maybe (perhaps)* is clearly subjective and that is used at a boundary in the situation where the speaker wants to underscore that what is said is a hypothesis or a conclusion (based on considering several different alternatives). In (13) the people are discussing how a four-room flat can be shared by five people. What is reinforced by *I think* is the hypothesis that one of the people will have to go leaving other alternatives (for example that two people share a room) open for discussion. In (14) the speakers are discussing the reasons why refugees want to go to England rather than stay in France. *I think maybe* is used at the point in the discourse where the speaker wants to reinforce a particular alternative. In (15) one of the speakers is painting the walls of a shed. *I think perhaps* is used at a boundary in the discourse where the speaker wants to bring in something new in the discourse while presenting it as an alternative only ('I think perhaps you need to seal in that stuff a bit'). In (16) the speakers are discussing how they want their children to have the benefits of their own education. By using 'I think perhaps'

Speaker S0252 introduces her own point of view in a cautious way underscoring that it is her personal view and an alternative only. From an interactive point of view the speaker also invites the hearer into the conversation by emphasizing that something is only a hypothesis and that other alternatives are possible.

In the examples given, *perhaps* or *maybe* is placed initially but after *I think* with a foregrounding function indicating that something is ‘the best alternative’ from the speaker’s perspective. A comparison can be made with (17) where *maybe* is placed at the end of the utterance with a backgrounding function (‘this is only one possible alternative’).

- (17) S0115: well **I probably think** he he has he has like a like a main official one **maybe**

Both *maybe* and *perhaps* are found in combinations with *I think* (*I think maybe* 6 cases and *I think perhaps* 5 cases). Other combinations are *I feel perhaps* (1 case), *I mean perhaps* (3 cases), *I thought perhaps* (1 case), *I mean maybe* (1 case). In total there were more combinations with *perhaps* and a combination of *I* and an epistemic predicate than with *maybe* in the same combinations (*perhaps* 59%; *maybe* 41%).

6.4.4 *Maybe* and *perhaps* and modal concord

In medial position *maybe* and *perhaps* have the epistemic modal meaning to express the speaker’s lack of knowledge (neutral support). See (18) and (19):

- (18) S0303: objectively maybe or with a bit more perspective
 S0262: yeah yeah
 S0303: step back
 S0262: yeah a ste- a step back in erm a realisation or an awareness that there’s **perhaps** an element of jealousy there too
 S0303: oh definitely there too
- (19) S01115 oh okay (.) I think it ‘s got quite a nice taste
 S0037: it ‘s quite sort of spicy (.) it ‘s nice
 S0115: yeah I **maybe** put a little bit too much chilli in there but uh that ‘s fine
 S0037: >>no I do n’t think you did I think it ‘s nice (.) I think um with um

Maybe and *perhaps* also co-occur with modal auxiliaries with a semantically compatible meaning. These cases have been referred to as modal concord (or modal

harmony) and have been noted by several linguists (see in particular Halliday 1970; Lyons 1977). An example, first discussed by Halliday (1970) contains both the adverb *possibly* and the modal auxiliary *may*:

- (20) Possibly the gazebo may have been built by Wren.
Halliday notes that the same content is expressed by both (a) and by (b):
(a) Possibly the gazebo has been built by Wren.
(b) The gazebo has been built by Wren.

An example from my data would be:

The modal adverb has a reinforcing effect on the modal auxiliary.

- (21) S0392: >>she **maybe would** n't have felt happy though being on a late night

In (21) the adverb and the auxiliary are clause mates and co-operate to express a single modality.

The issues involve describing all the ways that modal concord is expressed and explaining why speakers use several modal expressions to express a single modal meaning.

Table 4 shows the frequencies of the combinations of *perhaps* or *maybe* with modal auxiliaries in the Spoken BNC2014S.

Table 4: The frequencies of *maybe* and *perhaps* with modal auxiliaries in the Spoken BNC2014S.

	<i>Maybe</i>	Percent	<i>Perhaps</i>	Percent
<i>can</i>	1	2.7%	5	17.2%
<i>could</i>	7	18.9%	4	13.8%
<i>will</i>	16	43.2%	8	27.6%
<i>would</i>	2	37.8%	5	17.2%
<i>may</i>	1	2.7%	–	–
<i>might</i>	–	–	4	13.8%
<i>must</i>	–	–	–	–
<i>should</i>	10	27.03%	3	10.3%
	37	100 %	29	100%

The semantic compatibility between the adverbs and modal auxiliaries is reflected in the frequencies of the combinations. Thus, for example, *maybe* is significantly more frequent in combinations with modal auxiliaries than *perhaps* ($p > 0.01$). Both *maybe* and *perhaps* are most frequent with *will* or *would*.

From a pragmatic perspective, the occurrence of modal concord can be explained in terms of its function in indirect speech acts. Thus, both *perhaps* and *maybe* are prominent as politeness devices in indirect speech acts such as suggestions, offers, requests in combination with modal auxiliaries and with reference to either the speaker or the addressee (or 'we') usually as the subject in the utterance (cf. Hoyer 1997:122–123). (22)–(25) illustrate *perhaps* and *maybe* as a part of indirect speech acts.

- (22) S0336: (. . .) (.) erm I wondered whether (.) **you perhaps would** like to buy a new car (.) using my car as part exchange. and then sell your car and just pocket the money
- (23) S0104: no I think the whole family are away somewhere I could tell you if I looked it up on my phone but I ca n't be bothered
 S0379: oh right
 S0104: but he 's erm so I said **perhaps I could** try and arrange another one at my house
 S0379: oh:
- (24) S0058: um (.) but I was thinking obviously it 's er it 's up to you but I was thinking tomorrow we 're not really gon na be able to do much sort of city town wise (.) so we could go out
 S0179: beach wise
 S0058: yeah to a beach wise (.) cos that 'll be open (.) it 's up to you (.) **I mean I think you should maybe** go in and get some ice on that first
 S0179: yeah
 S0058: and we can maybe go later tonight if you want to
- (25) S0320: >>oh really ? oh I did n't know that well er yeah **maybe I should** get some lipstick I never wear lipstick
 S0323: it should n't matter I wore my red lipstick yesterday and I have n't worn it for ages

The hypothetical meaning of *perhaps* and *maybe* makes them suitable as politeness strategies. In (22) the speaker does not want to ask directly if the hearer wants to use his old car as an exchange when buying a new car but uses *perhaps* to soften the illocutionary force of the speech act. In (23) *perhaps I could* is a fairly conventionalized phrase with the function of making a polite suggestion. In (24) the two participants in the conversation are discussing what to do the next day. Speaker S0058 suggests that the other person should get some ice on his injured leg before

they can go on a city walk. *I mean I think maybe you should* contains several elements having the function of mitigating the illocutionary force of the request. In (25) the speakers are sharing some information on the internet that you shouldn't both use eye makeup and wear lipstick. *Maybe I should* is a polite way of asking for advice which does not threaten the hearer's face.

6.4.5 *Maybe and perhaps* with engagement meaning

There is a problem with regard to describing expressions which have different meanings depending on their positions in the clause (cf. Section 6.4.2). The issue discussed in this section concerns the formal and functional properties of *maybe* and *perhaps* in final position.

Suzuki (2018) relates the final position of the adverbs to their intersubjectivity and states that “modal adverbs too can appear in sentence-final position, and can acquire intersubjective meanings, particularly in speech. Further research would be required” (Suzuki 2018:407). When describing *maybe/perhaps* as intersubjective she assumes that intersubjectivity involves the speaker's attention to the hearer. Along the lines suggested by Traugott and Dasher (2002), intersubjectivity is closely connected to and presupposes the existence of subjectivity. While subjective expressions are concerned with opinions and evaluations, markers of intersubjectivity, in this view, are additionally oriented towards the “AD[dressee]/ R[earer] as a participant in the speech event, not in the world talked about” (Traugott and Dasher 2002:22). The distribution of modal adverbs in the initial and final position has also been approached as a question of categorization.

My purpose here is to describe what *perhaps* and *maybe* are doing in the final position basing myself on notions such as the involvement of the speaker and the hearer in the interaction and who has access to information. In particular, I want to suggest that the notion of engagement can be used to describe how speakers position themselves with respect to the events talked about in the conversation. According to Bergqvist (2020:471), the function of engagement is to “situate information between the speech act participants by specifying cognitive access and involvement.” In other words, engagement implies that the speakers in the conversation have different access to information which is reflected in whether they use an assertion or a question or something in between. When *perhaps* or *maybe* is placed in final position they relate the current utterance to an aspect of the situation which can be accessed by both the speaker and the hearer. The adverb is used with the procedural function to signal to the hearer that an aspect of the situation is shared information (accessible to both the speaker and the hearer). Shared information (cognitive access to information) may, for instance, be based on the fact that

the speaker and hearer share experiences and beliefs or what has been said in the preceding context.

In (26)–(28) *maybe* and *perhaps* can be regarded as pragmatic markers with an engagement function. Here they acquire a response-inviting function implying that the preceding sentence should not be taken as an assertion but as hypothesis or conjecture. Notably, the presence of the question mark underscores the response-inviting function.⁵

- (26) S0013: cor it needs a lot of seasoning does n't it ?
 S0012: there 's some bones in it (.) --UNCLEARWORD the table (.) not a bad taste though it ?
 S0013: no it is n't (.) needs a bit of butter in it **perhaps** ?
 S0012: yeah (.) –UNCLEARWORD
- (27) S0264: but that 's Twitter is n't it ?
 S0265: that 's Twitter yes I 've only used Twitter
 S0264: yeah but do you think the same applies to blogs **perhaps** ?
 S0265: I do n't know
- (28) S0425: I I went any higher than sort of giving seventy-five
 S0426: er how how many seventy-fives did you give ?
 S0425: not (.) **possibly** sort of er (.) three or four **perhaps** ?

The speaker treats the context as something which is accessible and shared information for both the speaker and the hearer. In (26) it is presupposed that both the speaker and the addressee can taste the food. *Perhaps* is used as a marker of engagement or common ground with the function of signaling that the assertion should be taken as hypothetical inviting the hearer to respond. In (27) the topic concerns whether you need a hashtag when you create a blog on Twitter. *Perhaps* follows a question addressed to the hearer whether that is (only) Twitter. *Perhaps* makes the question more polite by softening its illocutionary force. In (28) the question-like character of the assertion is also indicated by 'possibly'. The speakers are discussing the grades they have given to students' essays. In (29), however, the utterance ending with *maybe* or *perhaps* is best described as a 'quasi-assertion':

⁵ The uses of *maybe* and *perhaps* with a question mark have also led to a great deal of discussion in the social media. The issues discussed on the internet are, for instance, what *maybe* (and *perhaps*) mean and if the question mark is correct (<https://ell.stackexchange.com/questions/113521/sentence-starting-with-maybe-as-question>).

- (29) S0307: no ? well actually it 's funny you say that cos I do n't feel hungry when I do n't eat I have n't felt hungry for years yeah not years but I eat because it 's the time to eat
 S0281: mm
 S0307: or because I 'm a bit low on energy **maybe** or because you know I like food but er I er I do n't feel hungry very often (.) no (.) do n't know I 'm not thinner

The notion of shared knowledge is present although the hearer is not explicitly invited. *Maybe* and *perhaps* are sometimes analysed as hedging, “defined as a linguistic strategy, used to avoid sounding too authoritative and direct” (Murphy 2010:49). However, this analysis would not account for their hypothetical and response-indicating function and how these adverbs are distinct from other epistemic modal adverbs.

To sum up, analysing *maybe* and *perhaps* in terms of engagement notions such as attention and access to knowledge makes it possible to describe many of the functions that they can have in final position including their uses to invite responses, loss of assertiveness of the preceding clause, politeness. *Maybe* and *perhaps* in final position are response inviting rather than modifiers of illocutionary force (hedging).

6.4.5.1 The response-inviting function expressed by a combination of modal elements

The response-inviting function has been discussed less than other functions where the modal adverb has its core meaning possibility of neutral support. *Maybe* does not only have a response-inviting function by itself in my data but both *maybe* and *perhaps* are commonly used in a harmonious combination with a tag question to invite a response. The meaning of *maybe* and *perhaps* involves the notion of engagement (the differential access to knowledge between the speaker and the hearer).

In (30)–(32) *maybe* and *perhaps* imply that the speaker does not know or does not remember while the tag question asks for a reaction from the hearer (*maybe* 5 cases; *perhaps* 4 cases).

- (30) S0271: but we did n't hear about that when we were children did we
 S0266:no
 S0270: well **maybe** we did n't know the cause of that shock **did we** ? If someone had died in that way like having a bee sting that you 're (.) allergic to we did n't know the cause of it I guess we would know that but maybe not with peanuts I mean if you go back would they have even been ?

- (31) S0142: ha (.) you know they grow up with every allergy under the sun now do n't they because because they 're not facing it
 S0024: >>yeah they do (.) all this asthma and eczema about
 S0142: >>yeah
 S0024: yeah **maybe** a little bit too protective of them **are n't we**
- (32) S0018: that does n't necessarily mean that they wo n't just wo n't be as successful in life
 S0074: and thrive in another way
 S0018: yeah
 S0074: Cos they 're **perhaps** practical **are n't they**
 S0018: Exactly

In (30) the speakers are referring to the fact that when they were children they didn't know that people could be allergic to peanuts. *Maybe* signals that the speaker is only making a hypothetical statement while adding a tag question to get a reaction from the hearer. In (31) the topic concerns how children nowadays grow up with allergies and exzema. *Maybe* signals that the assertion is weakened (the speaker does not know) while the tag question invites the hearer to respond. In (32) the topic deals with the future of children who have not done very well in school but who may be practical. Speaker S0074's statement is formulated as a question (a declarative sentence followed by a tag question) in order to involve the hearer in the discussion and establish common ground.

Example (33) illustrates the combination of *maybe* and *you see*. *Maybe* expresses that the speaker does not know and *you see* signals that the speaker expects the hearer to understand:

- (33) S0370: or were they on their way back ?
 S0278: the noise no they were on their way to cheerleading
 S0370: well **maybe** doing another job before **you see** ?
 S0278: well I do n't know

Maybe and *perhaps* may also co-occur in the same utterance as in (33)–(36):

- (34) S0327: so that started also what ? in the
 S0326: yeah
 S0327: fifth century ?
 S0326: about then yeah
 S0327: **maybe** because there was some particularly skilled sculptors **perhaps**?

- (35) S0441: not even May I 'm sure it was like April
 S0439: mm
 S0441: **maybe** early May **perhaps** I ca n't remember now
- (36) S0041: if you 're still hungry please help yourself to more soup
 S0085 oh thanks love no that 's perfect (.) that little wrap **maybe perhaps**

Maybe is generally placed before *perhaps*, providing some evidence for the different orientation of *maybe* and *perhaps* in the interaction. *Maybe* is more frequent in the function of establishing the speaker's subjective personalized perspective on the direction of the discourse while *perhaps* is hearer-oriented and is more likely to have the function of response-inviting establishing common ground between the speakers. In (34), the speakers are discussing why there did not use to be any commemorative statues of real people in ancient Greece. *Maybe* introduces a possible reason while *perhaps* invites the hearer to react. In (35) the speakers are trying to remember when the heating was turned on. *Maybe* foregrounds one of the alternatives as a possibility (maybe early May) while *perhaps* focuses on what the hearer may know. (36) contains an offer and its response. Speaker S0085 does not want more soup but suggests that *maybe* that 'that little wrap' would be an alternative. *Perhaps* is hearer-oriented and closely associated with politeness and downtoning the force of the response.

To sum up, the changes undergone involve the rise in the frequency of *maybe* in all positions. When they have initial position *maybe* and *perhaps* contribute to the ongoing discourse by establishing that what is said is a hypothesis implying that the evidence is not necessarily true. The hypothetical meaning of the adverbs can however be reinforced by *I think* implying that a particular alternative is the best one. When the adverb occurs in final position a shift to the hearer as the authority of knowledge takes place. *Perhaps* and *maybe* appear with a reaction-inviting function in the final position in some of their uses.

6.5 Sociolinguistic factors

The present article combines the study of the functions of *maybe* and *perhaps* with a description of their social meanings, that is "the constellation of qualities and properties that linguistic forms convey about language" (Beltrama 2020:20). The starting point for investigating the social meanings of *maybe* and *perhaps* is based on the metalinguistic data about the speakers' age and gender in the two corpora.

Maybe increases in frequency among speakers in all but one age group in the Spoken BNC2014S. See Tables 5 and 6.

Table 5: The frequencies of *maybe* in relation to different age groups in the BNC1994DS and the Spoken BNC2014S.

	BNC1994DS		BNC2014S	
	<i>Maybe</i>	Rate per million words	<i>Maybe</i>	Rate per million words
0–14	64	147.030	60	865.127
15–24	152	254.985	804	835.458
25–34	173	212.004	456	1.183.466
35–44	180	217.955	687	1.037.424
45–59	186	216.345	359	674.548
60+	106	135.274	378	402.126

Table 6: The frequencies of *perhaps* in relation to different age groups in BNC1994DS and the Spoken BNC2014S.

	BNC1994DS		BNC2014S	
	<i>Perhaps</i>	Rate per million words	<i>Perhaps</i>	Rate per million words
0–14	22	50.541	–	–
15–24	35	58.714	42	42.463
25–34	147	180.142	23	59.692
35–44	185	224.010	31	46.812
45–59	222	258.219	41	77.038
60+	284	362.433	138	146.808

Maybe is used most frequently by speakers in the 25–34 and 35–44 age bands, suggesting that these speakers play a role in promoting the change. On the other hand, *perhaps* decreases in frequency in the speech of the users in all the age groups in the Spoken BNC2014S. Notably, it is used most frequently by older speakers in that corpus.

Particularly, there is an association between the use of *perhaps* or *maybe* and the gender of the speakers. See Table 7.

Table 7: The frequency of *maybe* and *perhaps* in the speech of male and female persons in the BNC1994DS and the Spoken BNC2014S (raw frequencies and frequencies per million words).

	<i>Maybe</i>				<i>Perhaps</i>			
	Female		Male		Female		Male	
BNC1994DS	488	188.265	379	219.457	612	229.833	300	173.712
BNC2014S	2.705	945.560	1357	703.822	184	66.067	200	103.722

In the BNC 1994DS *maybe* is preferred by the male speakers while the female speakers used *perhaps* more often. In the Spoken BNC2014S the situation has changed and female speakers use *maybe* and seem to avoid *perhaps*. In the BNC 1994DS *maybe* is preferred by the male speakers while the female speakers in our corpus used *perhaps* more often. Interestingly female speakers who had earlier preferred *perhaps* use *maybe* in the Spoken BNC2014S.

Social meanings can be associated to linguistic expressions via indexicality. According to Ochs (1996:411), “a linguistic index is usually a structure . . . that is used variably from one situation to another and becomes conventionally associated with particular situational dimensions such that when that structure is used, the form invokes those situational dimensions.” In regard to *maybe* and *perhaps* they have the core meaning of ‘negative support’ (hypothetical meaning). This meaning can be taken to be a rich source for social meanings. As shown above, the data from the Spoken BNC2014S suggests that *maybe* is associated to female gender identity. However, indexical associations of this sort can also invoke other social meanings. Knowledge that someone is a medical doctor may, for instance, entail properties such as being knowledgeable, objective and caring (cf. Ochs 116:418). Only *maybe* rises in frequency which suggests that its meaning is more suitable to carry social meaning. *Maybe* acquires a number of new indexical meanings which may vary across social groups but also depend on the contexts where it is used. Thus, for example *maybe* (and *perhaps*) are associated with politeness (softening illocutionary force) when the adverbs are found in indirect speech acts. In other contexts, and with other social groups *maybe* may be interpreted as non-committal and perhaps characteristic of a certain type of woman.

6.6 Conclusion

Both *maybe* and *perhaps* have the semantic core meaning of neutral epistemic support or possibility. *Maybe* is more frequent than *perhaps* in the initial position of the utterance where its function is to establish that something should be taken as a possibility for which evidence exists, making it into the best alternative. Special attention has been drawn to the co-occurrence of *perhaps* and *maybe* with *I think* (or similar verbs) in initial position indicating (a higher degree of) subjectivity and emphasis. *Perhaps* was more frequent than *maybe* in this environment. Depending on the context, *maybe* and *perhaps* may be exploited for different purposes in the interaction. *Perhaps* has evolved its own niche in the functional domain of possibility. It is used in final position where it has the intersubjective function of

inviting a response from the hearer in addition to its utterance-ending function. With modal auxiliaries both *maybe* and *perhaps* are used in indirect speech acts such as suggestions with a politeness function. Concerning their combinations with modal auxiliaries *maybe* collocate most often with *should* while *perhaps* is more frequent with *might*. It is difficult to describe the differences between *maybe* and *perhaps* based on the data available. However, Suzuki's corpus-based analysis of *maybe* and *perhaps* in the British National Corpus which is based on a large number of occurrences is interesting in this regard. Suzuki (2018) found that there was a closer association of *maybe* with modal auxiliaries, first person pronouns and initial position.

We can conclude that *maybe* and *perhaps* are used with specific functions in system of neutral support (possibility) although there are not enough data to describe their variation and changes. *Maybe* is more frequent with a modal function (especially in initial position) and can be used to present something from the speaker's own perspective. *Perhaps* is increasingly exploited for the response-inviting function. However, independent of function and position *maybe* is used more frequently than *perhaps* in the Spoken BNC2014S.

The changes in the frequency of *maybe* over a short time are attested in all age groups of the speakers with a frequency peak for speakers in the age bands 25–34 and 35–44. An interesting observation is that *maybe* is used primarily by female speakers in the Spoken BNC2014S, who use *maybe* rather than *perhaps* in order not to sound over-assertive. More speculatively, *maybe* may be preferred to *perhaps* because it sounds American or because it is more informal than *perhaps*.

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Christian Döhler

7 Komnzo demonstratives and intersubjectivity

Abstract: This chapter describes three linguistic devices in Komnzo, a language spoken in southern New Guinea, for encoding intersubjective parameters such as the attention or knowledge states of the speech actors. I show that all three devices are formally related to the demonstrative system of the language, but that their function is not spatial in nature. The description is based on a corpus of 12 hours of natural speech. The present study contributes to the ongoing investigation of intersubjective markers in Komnzo and to the typology of epistemic grammar.

Keywords: Demonstratives, intersubjectivity, epistemics, Papuan languages, Yam languages

7.1 Introduction

This chapter describes and analyses the demonstrative system of Komnzo, a language of the Yam family spoken in the south-west of Papua New Guinea.¹ I focus here on various functional and formal extensions of demonstratives, especially those that do not refer to spatial configurations, but rather involve intersubjective factors such as the attention or knowledge states of the speech act participants. Recently, such intersubjective functions have been subsumed under the label of “engagement” by Evans, Bergqvist, and San Roque (2018a,b). For this chapter, I draw on corpus data from natural recordings and from a stimulus picture task.

1 ISO 639-3: tci, Glottocode: komn1238.

Acknowledgements: I thank the speakers of Komnzo for welcoming me to their village and taking on the task of teaching their language to me. The fieldwork was funded by the DOBES program of the Volkswagen Foundation and the Australian National University. I thank both of these institutions for their support of language documentation and description. I owe thanks to Bruno Olsson and also to another anonymous reviewer. Their comments have greatly improved this chapter. Lastly, I thank Karolina Grzech and Henrik Bergqvist for their patience with the manuscript and for their useful feedback.

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As an initial example, consider the four Komnzo statements in (1a-d), which are quite similar in their propositional content. Note that all four sentences were constructed for expository purposes.

- (1) a. *zane kar=fo sa\thor/a*
 PROX village= ALL 3SG.M:PST:PFV/arrive
 b. *zane kar=fo sa\thor/a z=|yé/*
 PROX village=ALL 3SG.M:PST:PFV/arrive PROX=3SG.M:NPST:IPFV/be
 c. *zane kar=fo zf sa\thor/a*
 PROX village=ALL ZF 3SG.M:PST:PFV/arrive
 (a-c): ‘He arrived in this village.’
 d. *zane bāne=fo sa\thor/a (kar=fo)*
 PROX PH=ALL 3SG.M:PST:PFV/arrive (village=ALL)
 ‘He arrived in this whatchamacallit (in the village).’

Examples (1a)–(1d) could be uttered as part of a narrative about a man arriving in a particular village. Note that all examples contain the proximal demonstrative *zane* ‘this’, and thus they make a verbal pointing gesture to a location near the deictic centre. Examples (1a)–(1c) are identical in their English translation, but their appropriate use is conditioned by differences in discourse situation. Example (1a) is unmarked and could be used in a neutral setting. By contrast, (1b) adds a demonstrative identifier (cf. Diessel 1999:10): a copula with a deictic proclitic. I refer to this as the “presentational construction” in Komnzo. It is appropriately used in situations in which both the speaker and hearer have access to the state of affairs, for example because they are looking at the same entity. In (1b), they would both know about the village and its location, and they would both expect that the man arrives there. (1c) contains the particle *zf*, which is used in situations of (supposed) epistemic asymmetry. The speaker claims privileged knowledge of some state of affairs. This could be uttered because the speaker wants to draw the hearer’s attention to something, or because they want to defend the statement against contradictory claims. Thus, the context is such that the events are somewhat unexpected. Example (1d) has a different translation because it contains the placeholder *bāne*, which is used mainly in disfluency situations when the speaker has problems in word-finding, hence the optional self-repair in brackets. However, *bāne* is also used in situations in which the speaker assumes sufficient common ground, that is in situations of “recognitional deixis” (Enfield 2003). Example (1d) could be uttered (without the self-repair) in a context in which the speaker can safely rely on the hearer’s knowledge to fill in the blanks. What is important for this chapter, is the fact that all three marking strategies, the presentational construction, the particle *zf*, and the placeholder *bāne* can be linked more or less directly to the system of demonstratives.

Situations in which intersubjective factors involving knowledge and joint attention are crucial for understanding such linguistic structures. They have been subsumed under the supercategory “engagement” by Evans, Bergqvist, and San Roque (2018a,b), who define the term as “the relative accessibility of an entity or state of affairs to the speaker and addressee” (Evans, Bergqvist, and San Roque 2018a:118). Evans et al. present Andoke, an isolate language of the Colombian Amazon (Landaburu 2007), as a canonical example. In Andoke, all declarative and interrogative sentences are marked with one of the four prefixes in Table 1, which encode epistemic access for speaker and addressee.

Table 1: Andoke markers for epistemic access.

	+ Speaker knowledge	– Speaker knowledge
+ Addressee knowledge	<i>b-</i>	<i>k-/d-</i>
– Addressee knowledge	<i>kẽ-</i>	<i>bã-</i>

The prefixes in Table 1 are attached to an auxiliary base in preverbal position. The system exhausts all four logically possible configurations, and can therefore be regarded as perfectly symmetrical. Moreover, this marking strategy is obligatory in the language. Taking Andoke as a point of departure, Evans, Bergqvist, and San Roque (2018a,b) show that engagement marking is found in many languages around the world. These systems draw from a variety of linguistic subsystems and vary in their degree of grammaticalisation. Deictic systems play a prominent role among the sources of grammaticalisation.

Recent publications have revealed a rich diversity in the grammatical devices that encode engagement. For example, Olsson (2019) describes the system for Marind, an Anim language spoken in the South of New Guinea, in which there is a special inflectional form of the verb to signal that the state of affairs is outside the addressee’s current focus of attention. Mansfield (2019) describes for Murrinhpatha, an Australian language of the Northern Territory, an initial *k*-alternation in verbs that signals the speaker’s epistemic primacy over the addressee. Knuchel (2019) investigates the system of demonstratives in Kogi, a Chibchan language of Northern Colombia, concluding that certain (ad)nominal forms that were initially associated with addressee proximity cannot be accounted for in merely spatial terms.

The present chapter follows this line of research taking Komnzo demonstratives as an example. The remainder of this section is dedicated to some preliminary topics, such as the sociolinguistic background (Section 7.1.1), the text corpus (Section 7.1.2) and a brief typological overview of the language (Section 7.1.3). Section 7.2 introduces the demonstrative system of Komnzo. The main body of the chapter discusses three grammatical devices, namely the presentational construc-

tion in Section 7.3, the particle *zf* in Section 7.4 and the placeholder *bāne* in Section 7.5. I summarise my thoughts in Section 7.6.

7.1.1 Sociolinguistic background

Komnzo is a small language even by the standards of Papua New Guinea, where language communities tend to be small. Komnzo is spoken by approximately 200–250 speakers in the village of Rouku and Morehead Station. Genetically, the language belongs to the Tonda subgroup of the Yam languages (Döhler 2018:36ff.). Figure 1 shows a map of the language family with Komnzo in the centre.

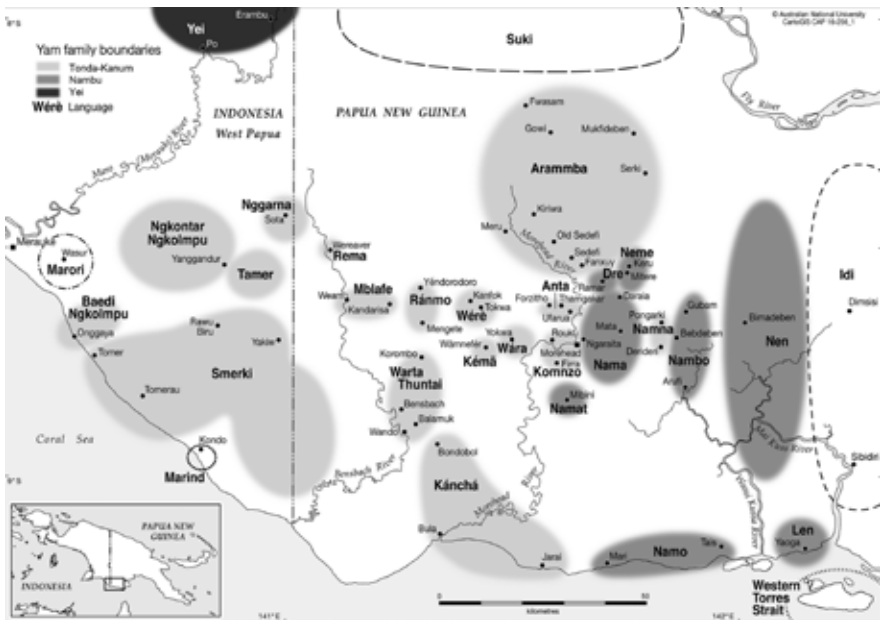


Figure 1: The Yam language family.

Komnzo speakers live in a highly multilingual society (Döhler 2018:34ff.). Due to a marriage pattern of sister-exchange with exogamous groups based on clan, place, and (epiphenomenally) on language variety, virtually all children grow up with at least two languages. In reality, the repertoire of most children includes 4–5 languages by the time they reach adulthood.

Komnzo speakers live in a small-scale traditional society, i.e., what has been called a “society of intimates” (Givón 2018, Givón and Young 2002). In this type of

social setting all generic knowledge is shared and almost all daily interactions take place between individuals who have known each other for a long time. It seems reasonable to assume that this results in a high degree of common ground, thus, leading to higher informational predictability in face-to-face conversation.

7.1.2 Text corpus

The data discussed in this chapter is based on recordings made between 2010 and 2015, archived as Döhler (2021). The corpus used here comprises around 12 hours of various text genres, including both natural and stimuli-based narratives and conversations (Table 2). 34 speakers of both sexes (9 women and 25 men) and various ages (20 to 68) are featured in the corpus. The overall size is around 55,000 word tokens, which makes the Komnzo text corpus a typical “language documentation corpus” (Mosel 2012).

Table 2: Corpus overview.

Text type	hh:mm:ss
Conversations	01:01:55
Conversational tasks	01:49:51
Narratives	06:40:18
Procedural texts	02:11:36
Public speeches	00:42:38
Total	12:26:18

All corpus examples are referenced with a source code of the following format: [tci-YYYYMMDD-NN SSS ##].² Example (9) in this chapter has the source code [tci20121019-04 ABB 96–98]: It is the fourth recording made on October 19th 2012. The speaker is Abia Bai (ABB). The example shows annotation units 96 to 98. All files have been archived at Zenodo, where the file names of the corresponding source files follow the same format, e.g. ELAN transcription file (tci20121019-04.eaf), audio-file (tci20121019-04.wav), and video-file (tci20121019-04.mpeg).³

² The first part identifies the transcription file. Each session and the included files start with the ISO 639-3 code for Komnzo: tci. Next comes the date of the recording (YYYYMMDD) and the session number on that date (NN). The second part identifies the example within the transcription file. Transcription tiers are sorted by speaker (SSS). Annotation units on the respective transcription tiers are numbered (##).

³ While the ELAN transcription files are stored in a single zip-file (<https://doi.org/10.5281/zenodo.1306246>), the audio/video files can be found in the Komnzo “community” as separate archive items: <https://zenodo.org/communities/komnzo>.

7.1.3 Typological overview

Komnzo is a double-marking language, in which the verb indexes core arguments and noun phrases are flagged for case. The basic word order is Actor-Undergoer-Verb. The case marking is organised in an ergative-absolutive system. In addition to four core cases (absolutive, ergative, dative, possessive), there are 13 semantic cases. Nominal morphology is agglutinative, while verb morphology is highly synthetic. Verbs are by far the most complex part of speech in the language. Verbs mark person, number and gender of up to two participants, 18 TAM categories, valency, directionality and deictic status. Complexity lies not only in the amount of grammatical categories that can be expressed morphologically, but also in the way these categories are encoded (Döhler 2018:175ff.). This is best described by the term “distributed exponence” (Carroll 2016), a subtype of multiple exponence (Caballero and Harris 2012) in which the information needed for a specific value (e.g. number, aspect, tense) is distributed over several morphological slots.

This aspect of the language is not the topic of this chapter, but it has a practical effect on the presentation of example sentences, in that I do not show the morpheme segmentation of verbs. Instead, I apply the word-and-paradigm approach (Matthews 1974): In the morpheme tier, I separate the verb stem from affixal material by placing it between slashes/. In the gloss tier, I list the relevant grammatical categories (argument structure, TAM, directionality) followed by the lexeme translation, for example *e|mar/wé* [1SG>2|3PL:NPST:IPFV/see] ‘I see them’.

7.2 Demonstratives

Before we proceed it is worth presenting the paradigm of Komnzo demonstratives. As a definitional point of departure, I follow Diessel (1999:2ff.) in assuming that the most basic function of demonstratives is a spatial (or situational) use, but see Himmelmann (1996) and De Mulder (1996) for a critique of this view. Based on this definition, we can identify the forms given in Table 3 as demonstratives.

Table 3: Demonstratives in situational uses.

PRONOUN / DETERMINER		ADVERB			CLITIC
		NEUTRAL	ALLATIVE	ABLATIVE	
PROX	<i>zane</i>	<i>zä</i>	<i>zbo</i>	<i>zba</i>	<i>z=</i>
MED		<i>bä</i>	<i>bobo</i>	<i>boba</i>	<i>b=</i>
DIST		<i>fä</i>	<i>fobo</i>	<i>foba</i>	<i>f=</i>

The paradigm is subdivided into three categories – proximal, medial and distal – which are formally signalled by the initial consonant: /z/ for proximal, /b/ for medial and /f/ for distal.⁴ The three categories of spatial deixis are also linked to personal deixis, in that the personal pronouns begin with the same phoneme. For the first person, Komnzo obscures the connection a little, since the first person singular pronoun does not begin with /z/, like the proximal series, but with /nz/, as in *nzä* [1SG.ABS]. However, this is clearer in closely related varieties such as Wära and Anta, which all begin with /z/, as in *ze* [1SG.ABS] in Wära. For the second and third person, the initial consonants of Komnzo personal pronouns match the /b/-initial medial and the /f/-initial distal demonstratives, as in *bä* [2.ABS] and *fī* [3.ABS]. In sum, there is a clear formal connection between the proximal and 1st person, the medial and 2nd person, and the distal and the 3rd person.

Syntactically, the demonstratives in Table 3 belong to different parts of speech, which aligns with Diessel's classification as pronouns, determiners, adverbs, and identifiers. The elements shown in the leftmost column can be used both pronominally and adnominally, as in *zane=me* [PROX=INS] 'with this one' and *zane garda=me* [PROX canoe=INS] 'with this canoe'. Adnominal demonstratives are almost always preposed to the noun. The forms in the middle column function as adverbs, as in *zä* 'here', *zbo* 'hither', and *zba* 'hence'. They occur most frequently in preverbal position, but are otherwise fairly flexible in their syntax. The proclitics in the rightmost column can attach to any inflected verb. Their most frequent use is as part of the so-called "presentational construction", which I describe in Section 7.3.

There are two noteworthy gaps in Table 3, namely the medial and distal forms in the first column. Based on the paradigm, one would predict the forms *bane* and *fane*, which do not exist in Komnzo. Instead, there are the forms *bäne* and *ane*, which do fit into the paradigm but require further explanation because none of these forms are used situationally, i.e. they never point to something in space.

For *ane*, there is evidence from recordings made in the 1980s by the anthropologist Mary Ayres that it has developed from an older form *fane* (cf. Döhler 2018:110). *Ane* no longer has the (distal) spatial reference that its position in the paradigm suggests. Instead, it is used anaphorically for referents or sometimes for a whole proposition established in the preceding discourse, i.e., it is used for "tracking" (cf. Himmelmann 1996). Syntactically, *ane* functions as a pronoun, as in *ane=ma* [ANA=SOURCE] 'because of this' or 'therefore', and adnominally as a determiner, as in *ane kar=ma* [ANA village=SOURCE] 'from that village'. As a determiner it

⁴ There is an additional set of forms, all /m/ initial, which constitute spatial interrogatives: *mane* 'which (one)', *mä* 'where', *mobo* 'whither', and *moba* 'whence'. I did not include these in the table because they are not demonstratives.

stands in opposition to the indefinite pronoun *nä*. Hence, *ane ηare* [ANA woman] is ‘that woman (who was mentioned earlier)’, whereas *nä ηare* [INDF woman] is ‘some woman (about whom we don’t know much)’.⁵

Bäne on the other hand is analysed as a placeholder filler with recognitional deixis (Enfield 2003), much like English ‘watchamacallit’ or ‘thingamajig’. Such uses are always cataphoric in that they occur often on first mentions of a particular referent, and there is a need to fill them in with a target word, as in *bäne=me . . . giri=me* [PH=INS (.) knife=INS] ‘with the thingamajig . . . with the knife’. Note that I have analysed the placeholder use as an extension of the situational (medial) function in the past (cf. Döhler 2018:112). Recently, I have argued that the placeholder use is the only function of *bäne* (cf. Döhler 2025). I address *bäne* below in Section 7.5.

There is a third form that has its origin in the demonstratives, but fits neither with the situational uses of demonstratives nor with the forms in the paradigm. This word is the particle *zf*, which I analyse historically as a contraction of the adverb *zä* [PROX] ‘here’ and the emphatic particle *fof*. *Zf* is the topic of Section 7.4.

7.3 The presentational construction

This section is dedicated to the demonstrative clitics in Table 3. I first describe how they attach to fully inflected verbs adding a deictic component to the utterance. Further below, I describe how they are used in the so-called “presentational construction”.

A typical example is given in the passage in (2) where the demonstrative clitics occur three times (printed in **bold front**). The context of the example is that Marua Bai and his son Moses show me an eelish that Marua found in his fishing net. They explain to me that the eel is a totem of their Mayawa clan and that they are not allowed to hunt it, let alone eat it. As Marua points out, he will give away the eel to members of the Bagu clan. In (2), Marua demonstrates how he carried his catch, which consisted of two catfish and the eel, back to the village and what he intends to do with the eel. Note that he frames his intention to call people of the Bagu clan in the recent past, i.e., as if he has talked to them already.

- (2) a. *thwä f=e|mi/thgrn.*
 catfish **DIST=3DU:NPST:STAT/hang**
 ‘The two catfish were hanging there.’

⁵ The indefinite *nä* most likely has its origin in the numeral *näbi* ‘one’, which is a common source of grammaticalization of indefinite markers (Haspelmath 1997:183ff.).

- b. *zane* ... *zaza=me* *nwan|wä/gr* ...
 PROX (.) carrying_stick=INS 1SG:IO:NPST:STAT/be_up_high (.)
fatr=en.
 shoulder=LOC
 ‘I had them on this ... with the carrying pole ... on this shoulder.’
- c. *zä zf thä|mir/é.*
 PROX ZF 1SG>3PL:RPST:PFV/hang
 ‘That’s where I hung them.’
- d. *thä|s/é* *bagu mane e|rä/* “*benme dagon=ma*
 1SG>3PL:RPST:PFV/call *bagu who* 3PL:NPST:IPFV/be 2PL:POSS food=PURP
z=y|mi/thgr.
PROX=3SG.M:NPST:STAT/hang
 ‘I called (the people from) the Bagu clan (and said) “Your food hanging here.’
- e. *thzé sa|na/the!*
 whatever 2PL>3SG.M:IMP:PFV/eat
 ‘You eat it! (or do whatever you want with it)’
- f. *nzone thwä nima b=e|rn.*
 1SG.POSS catfish like_this **MED=3DU:NPST:IPFV/be**
 ‘My two catfish are (hanging) there.’” [tci20121008-03 MAB 13–17]

For the present purposes, it is worth taking a look at clitic demonstratives in conjunction with co-speech gestures, which are shown in Figure 2. First, Marua mentions that the two catfish were hanging on the end of the carrying pole (2a), while he points with his finger to the far end of the pole. Note that this part of the pole and the two catfish are just off screen in the video (Figure 2a). In (2a), the verb ‘hang’ is marked with the distal clitic. Next, he explains how the carrying pole was resting on his shoulder (2b), while tapping on his right shoulder (shown by the white arrow in Figure 2b). In (2c), he makes a summarising statement accompanied by a downward sweeping gesture with his arm (shown by the white arrow in Figure 2c). The gesture is less iconic as it does not point to any particular object in the situation. In (2d-f), he mentions that he summoned people from the Bagu clan, and then re-enacts a conversation with them in which he quotes himself in direct speech. First, he tells them that the eel is theirs to eat (2d). While pointing at the eel (Figure 2d), the verb ‘hang’ is marked with the proximal demonstrative. Next, he tells them to eat the eel (2e), making an upward movement with his hand as if he wants to wipe the eel away (shown by the white arrow in Figure 2e). Finally, he tells them that he is already well supplied with his share of the catch (2f). While pointing to the two catfish (Figure 2f), he uses the copula inflected with the medial demonstrative. We find that all parts of (2) are accompanied by co-speech gestures. However, pointing

gestures only occur in conjunction with the clitic demonstratives (cf. 2a, 2d, and 2f). I therefore analyse the clitic demonstratives as identifiers based on Diessel's terminology (1999).



Figure 2: Co-speech gestures in (2a-f).

While clitic demonstratives always occur in contexts in which the speaker wants to identify something, it is not always clear whether this information is supposed to be something new for the hearer. This subtle ambiguity is resolved in the presentational construction, in which the information provided is never news to the hearer. In other words, the speaker states something that is obvious in a given context. In this construction, the clitic demonstrative attaches to the copula in postposed position. It follows the main verb, but is part of the same intonation phrase.

Consider example (3), which comes from a conversation between Steven Karémbu and Caspar Mokai that took place in Caspar's garden. In (3), Steven is making the point that the men are doing all the hard work like cutting down trees and building fences. In (3c) Steven uses a presentational construction to point out

Caspars work to me. This is supported by a pointing gesture (Figure 3). Steven points to the visible result of the gardening work, which was the subject of the preceding conversation. Steven knows that I had made recordings of Caspar and his garden work immediately beforehand. We might rephrase the translation in (3c) as ‘He worked that (garden plot), as we can all see there.’

- (3) a. *srak=é mane wä|fyok/wrth znsä*
 boy=ERG.NSG who 3PL>3SG.F:NPST:IPFV/make work
 ‘(It is we,) the young men, who do the work.’
- b. *Kwa za|mar/!*
 FUT 2SG>3SG.F:IMP:PFV/see
 ‘Look at it!’
- c. *ane fof zu|bzn/wr b=|rä/*
 ANA EMPH 3SG>3SG.F:RPST:IPFV/work MED=3SG.F:NPST:IPFV/he
 ‘He worked that (garden plot) there.’ [tci20130823-06 STK 113-114]



Figure 3: Steven Karémbu (on the right) pointing to Caspar Mokai's (on the left) garden work.

Another example comes from a session in the garden, when Abia Bai and myself were cleaning freshly dug yam tubers. Abia talked about customs surrounding yam cultivation. In (4), he uses a presentational construction that makes reference to the kind of tubers that are laying right in front of us, and that we have been working on over the last hour. As he utters the sentence, he makes a hovering hand movement over the tubers (Figure 4). The different sizes of yams and the importance of large tubers were the subject of the previous conversation.

- (4) *nima wark kwa|fsi:nzrmth z=e|rä/ ... kafar.*
 like_this size 3PL:PST:DUR/count **PROX=3PL:NPST:IPFV/be** (.) big
 ‘They were counting (yam tubers) of this size . . . the big ones.’
 [tci20120805-01 ABB 417]



Figure 4: Abia Bai talks about yam cultivation.

A final example comes from a procedural recording in which Kaumb Bai shows me how he fastens a new bowstring on his bow. In example (5), which contains a presentational construction, he puts down the bowstring to measure the correct length (Figure 5). He had already mentioned the point on the bow to which the string should reach in the previous explanation. The statement in (5) therefore merely repeats this statement while making the actual measurement.

- (5) *kwot fthé z|mar/wé ηatr nima*
 properly when 2SG>3SG.F:IMP:PFV/look bowstring like_this
z|nak/wé b=|yé/
 2SG>3SG.F:IMP:PFV/put_down **MED=3SG.M:NPST:IPFV/be**
 ‘You have to watch carefully! You put down the bowstring there!’
 [tci20130914-01 KAB 23]

With a total number of 1059 tokens, demonstrative proclitics are quite frequent in the corpus. As expected, they occur particularly in face-to-face conversations and procedural texts, which fits their function to identify something in the situation. The presentational construction adds to this general function a special intersubjective aspect, namely the expectation on the side of the speaker that the informa-

tion is already in the awareness of the hearer. A reviewer of an earlier version of this chapter has pointed out that the link to epistemics – in the sense of “state of knowledge at the time of speaking” or “relative right to know or claim” – is rather weak for the presentational construction. While I agree with this, especially with the absence of any claim to knowledge, I do argue for an intersubjective function of the construction, because the speaker is indeed monitoring the hearer’s attentional state. For example, I have not found corpus examples of the presentational construction, in which the hearer does not have access to the relevant state of affairs.



Figure 5: Kaumb Bai prepares a bowstring.

7.4 The particle *zf*

I analyse the particle *zf* as a marker of epistemic primacy, which expresses the speaker’s subjective perception of their “relative right to know” (Stivers, Mondada, and Steensig 2011:13), and also to claim such knowledge.

Historically, *zf* has probably developed from a contraction of the adverbial proximal *zä* ‘here’ followed by the focus marker *fof*. Evidence comes from syntactic distribution. Firstly, the combination of proximal adverbial followed by the focus marker (*zä fof*), although judged by informants to be grammatically correct, is vanishingly rare in the corpus with only two occurrences.⁶ Secondly, the particle *zf*

⁶ Compare this to 212 occurrences of *zä* followed by something else, and 1999 occurrences of *fof* preceded by something else.

is never followed by the focus marker *fof*. The particle *zf* has inherited some the syntactic properties of *fof* in that it always occurs after a nominal element. *Fof* has scope over the preceding element, but the functional scope of *zf* extends to the clause, or sometimes an entire utterance.

Example (6) is a typical example of the usage of *zf*. The utterance was made by Daure Kaumb during a hike in the area surrounding the village of Rouku. Daure told me an episode from the creation myth of the Bagu clan and how their ancestor, a crocodile, was looking for a place to settle. As the crocodile crawled up from the river, it heard voices that indicated that this place was already inhabited by someone else. In its attempt to turn around, the crocodile created a mud pit that later became the swamp.⁷ Thus, example (6) presents a kind of narrative climax of the story, because it reveals that the origin of the swamp is connected to the movement of the crocodile. Supported by a gesture (Figure 6), he uses the particle *zf* in this part of the story. The intersubjective aspect of this descriptive speech act is one in which Daure claims this piece of knowledge. Below, I provide further examples for this function of *zf*.

- (6) a. *tarku zane zf za|fiyoth/a*
 mud_pit PROX **ZF** SG>3SG.F:PST:PFV/make
 ‘(The crocodile) made this mudhole.’
- b. *zra~zra=r zane zf zä|tnoth/a*
 REDUP~swamp=PURP PROX **ZF** SG:PST:PFV/change
 Later it turned into this little swamp here. [tci20120922-09 DAK 22]

Example (7) comes from a story about a young woman who was killed by a crocodile the previous year. The speaker Sékri Karémbu reports on how the villagers searched the steep riverbanks trying to recover her body. In (7c), he informs the people that he is ready to retrieve the body from the river. Note that this is not just a statement about his ability to do this, but also about knowledge because Sékri was the one who found the body. He uses *zf* in (7c) to emphasise his intention: *nzä zf* ‘I’m the one who’. In this (and the next) example, we also see that *zf* inherits some of the focus function of *fof*. Hence, we could interpret *nzä fof* as ‘it is me, and not you’. I argue, however, that the focus function is not sufficient to describe the function of *zf*, and that a claim to knowledge is always at play.

⁷ Southern New Guinea is part of the dry tropics, and thus, shaped by the annual monsoon cycle. Large parts of the land are inundated by rising water during the wet season. Stagnant pools, which dry up only during the height of the dry season are referred to as *zra*, which I translate with ‘swamp’, but maybe the term ‘billabong’, commonly used in Australian English, is more fitting.



Figure 6: Daure Kaumb explains how this swamp hole was formed.

- (7) a. *nzä thä|kor/a “ra miyo e|rä?*
 1SG.ABS SG>3PL:PST:PFV/speak what desire 3PL:NPST:IPFV/be
 ‘I told them: “What do you want (to do)?’
- b. *keke zrä|fref/e no=f*
 NEG 1PL>3SG.F:IRR:PFV/come_up water=ERG.SG
zrä|thor/
 3SG>3SG.F:IRR:PFV/carry
 ‘If we don’t take her (body) out, the water will carry her away.’
- c. *nzä zf ηa|frez/é”*
 1SG.ABS ZF 1SG:NPST:IPFV/come_up
 ‘I’ll bring her up!’”
- d. *kabe fafä wtri thf|rä/rm nūmgar=ma*
 people after_this fear 3PL:PST:DUR/be crocodile=SOURCE
 ‘The people were afraid of the crocodile after this (incident).’
 [tci20150916-03 SKK42-45]

Example (8) is part of a public speech made at an all-night dance. The speaker Ako Koko is angrily calling out to a man, Abia Bai, in the audience. He addresses him with a teknonym (*alice tāw* ‘Alice’s father’) because the two are in a taboo relationship in which it would not be appropriate to use the personal names. Abia answers from the background and jokingly calls Ako *nane* ‘older brother’. Pragmatically, Abia uses *zf* to claim epistemic primacy over the state of affairs, i.e., over the fact that he is indeed listening to Ako. It would not be sufficient to analyse *zf* as a focus

marker contrasting either the speaker ('I'm listening, not the others') or the state of affairs ('I'm listening and I'm not doing something else').

- (8) a. AKK: *mobo* *n|rä/?* *bä* *z* *ŋa|riz/r* *alice*
 Where 2SG:NPST:IPFV 2SG.ABS already 2SG:NPST:IPFV/hear PN
täw?
 father
 'Where are you? Are you listening, Alice's father?'
 b. ABB: *o* *zf* *ŋa|riz/é* *nane* *ke|nafthm/*
 oh **ZF** 1SG:NPST:IPFV/hear older_brother 2SG:IMP:PFV/speak
 'Yes, I'm listening, brother. Speak up!' [tci20131103-08 AKK 57-59 ABB 8]

Example (9) is from the introduction speech for another all-night dance. Such introductions are often used to announce some of the rules and regulations that apply to such events. The speaker Abia Bai positions himself as one of the elders of his clan, and also as being in charge of the event. He does this by recounting an imagined meeting with two of his ancestors on the previous day. He explains that they have instructed him to take good care of everyone in (9a). His use of the particle *zf* in the following clause (9b) is meant to underscore his authority as he was the one who met the ancestors.

- (9) a. *nzä* *nima* *zu|kor/th* "be *fafä* *zane*
 1SG.ABS like_this 3DU>1SG:RPST:PFV/speak 2SG.ERG after_this PROX
nagayé *fäth* *zä* *tha|moneg/wé!*"
 children DIM PROX 2SG>3PL:IMP:IPFV/look_after
 'They said to me: "You will take care of these children!"'
 b. *watik* *nze* *zena* *zf* *ä|moneg/wé*
 well 1SG.ERG today **ZF** 1SG>2PL:NPST:IPFV/look_after
b=e|rä/
 MED=2PL:NPST:IPFV/be
 'Well, now I am looking after you!' [tci20121019-04 ABB 96-98]

From the preceding examples, we see that the intersubjective function of *zf* is to claim epistemic primacy. This function is always "self-centered", and there are no corpus examples in which *zf* is used to attribute epistemic primacy to someone other than the speaker themselves. This might be explained by the etymological source of *zf*, which is the proximal deictic, which is in turn formally linked to the first person category.

In a final part of this description of *zf*, I want to show its usage in a stretch of conversation in a stimulus task. Below in (10), I present a longer excerpt from the

“family problems picture task” (San Roque et al. 2012). Thematically, the picture task deals with situations of alcohol abuse and domestic violence. Procedurally, two speakers are presented with picture cards in a pseudo-random order, which they should later arrange in a coherent narrative.

In the first part of the task, the two participants are asked to describe what they see on each picture. In the excerpt in (10), the two participants Taylor Abia (TSA) and Riley Abia (RMA) are discussing the scene portrayed in picture card #5. The card and the recording setup are shown in Figure 7. Depicted on the card is a scene with three men sitting at a table. One of them is wearing a kind of uniform, while the other two are taking notes. A woman with a bandage around her head is sitting next to them. A speech bubble over her head indicates that she is reporting something. Inside the bubble, a man can be seen hitting a woman with his fist. In the foreground, a man facing away is sitting with his head bowed and a chain around his ankle.



(a)



(b)

Figure 7: Tayler and Riley discussing the picture card, Card #5 (‘In court’) from the picture task.

At this point in the stimulus task, Taylor and Riley have already seen a few other relevant picture cards from which they draw inferences. For example, the preceding card showed an angry man sitting and drinking with his mates. In his first turn, Taylor [TSA] makes a connection to this card by stating that these are the same people (10b). Riley [RMA] on the other hand starts with an introductory overview, in which he identifies the scene as taking place in a police station (10c-10e). He then notices that the man in the foreground is tied up at the feet (10f). The next few turns, Riley and Taylor are trying to identify the perpetrator and the victim as shown in the speech bubble (10g-10j). This first part contains a number of tokens of

zf – each time supported by a pointing gesture. Gestures are described in the interlinearization in [square brackets] on the translation line. After this, they speculate about the relationship between the perpetrator and the woman (10k-10o). Finally, they wonder about the role of the man in uniform (10p-10q). In the second-last turn, Riley summarises the content of the scene as he interprets it (10r), and Taylor signals approval (10s).

- (10) a. RMA: *okay zane mane |rä/*
 okay PROX which 3SG.F:NPST:IPFV/be
 ‘Okay, as for this one . . .’
 b. TSA: *zane zf e|rä/* *ane fof wri kabe*
 PROX **ZF** 3PL:NPST:IPFV/be DEM EMPH drunkenness men
 mane e|rä/ra
 which 3PL:PST:IPFV/be
 ‘Here they are again. Those are the drunkards from before.’ [points at the man cuffed-up in front]
 c. RMA: *polis station ane fof e|rä/*
 police(E) station(E) DEM EMPH 3PL:NPST:IPFV/be
 b=e|rä/
 MED=3PL:NPST:IPFV/be
 ‘They are at the police station there.’
 d. RMA: *zane zf*
 PROX **ZF**
 ‘This (whole picture) here.’ [taps with his fingers on the picture card]
 e. RMA: *okay frisman b=ya|m/nzr*
 okay(E) police_man(E) MED=3SG.M:NPST:IPFV/sit
 ‘The policeman is sitting there.’
 f. RMA: *zane kabe zf sun|rzar/wrth polis*
 PROX man **ZF** 3PL>3SG.M:RPST:IPFV:VENT/tie police(E)
 ‘This man here was handcuffed by the police officers.’ [taps on the man in front]
 g. TSA: *fi mon? zane emoth zf w|fnz/rath o*
 but how PROX girl **ZF** 3PL>3SG.F:PST:IPFV/hit or
 ‘But what (is going on)? They beat this girl here or . . .’ [points at the woman in the speech bubble]
 h. RMA: *zane zf w|fnz/a wri=n fof*
 PROX **ZF** 3SG>3SG.F:PST:IPFV/hit drunkenness=LOC EMPH
 ‘He hit this (woman) while he was drunk!!’ [points at the woman on the chair]

- i. TSA: *wri=n* *w|fnz/a*
drunkenness=LOC 3SG>3SG.F:PST:IPFV/hit
‘He hit her while he was drunk.’
- j. RMA: *watik ane=ma fof y|sz/r*
then DEM=SOURCE EMPH 3SG>3SG.M:NPST:IPFV/call
b=|yé/
MED=3SG.M:NPST:IPFV/be
‘That’s why he is called there (to appear in court).’
- k. TSA: *nafane emoth |rä/ zane*
3SG.poss sister 3SG.F:NPST:IPFV/be PROX
‘Is this one his sister?’
- l. RMA: *emoth o ηare nafane? ra kwa nm |rä/*
girl or wife 3SG.POSS what FUT maybe 3SG.F:NPST:IPFV/be
nnzä?
perhaps
‘Sister or his wife? Perhaps that’s who she is?’
- m. TSA: *zane |rä/ /z=|rä/*
PROX 3SG.F:NPST:IPFV/be PROX=3SG.F:NPST:IPFV/be
‘This (woman) here.’
- n. RMA: *ane w|fnz/a*
DEM SG>3SG.F:PST:IPFV/hit
‘He hit this (woman).’
- o. TSA: *naf nm w|fnz/a o maf*
3SG.ERG maybe SG>3SG.F:PST:IPFV/hit or who.SG.ERG
w|fnz/a?
SG>3SG.F:PST:IPFV/hit
‘Did he hit her or who hit her?’
- p. RMA: *zane kabe ka nm ra |yé/? mästret*
PROX man FUT maybe what 3SG.M:NPST:IPFV/be magistrate(E)
|yé/ o?
3SG.M:NPST:IPFV/be or
‘What sort of man is this? Is he a judge, or?’
- q. TSA: *mh*
INTERJ
‘Yes’
- r. RMA: *naf zane zf wn|sz/r naf ane*
3SG.ERG PROX ZF 3SG>3SG.F:NPST:IPFV:VENT/call 3SG.ERG DEM

- $\eta a|trik/wr$ $na\dot{f}$ $mon=me$ $zu|fnz/rm$
 3SG:NPST:IPFV/tell 3SG.ERG how=INS SG>3SG.F:PST:DUR/hit
 ‘He called this (woman) here and now she’s telling how he was beating her.’ [points at the woman on the chair]
- s. TSA: mh $zane$ z $nnz\ddot{a}$ $|y\acute{e}/$
 INTERJ PROX already perhaps 3SG.M:NPST:IPFV/be
 $z=|y\acute{e}/$
 PROX=3SG.M:NPST:IPFV/be
 ‘Yes, this is probably the one here.’ [tci20111004 RMA 51-67 TSA 51-60]

The entire conversation in (10) can be described as an attempt to disambiguate the scene and to clarify the facts: Who is who? And who is doing what to whom? Since both speakers are making claims about their respective interpretation, it is not surprising that the particle *zf* occurs more often at the beginning than later on in the conversation. More importantly, they are in disagreement about some aspects and make competing claims as to the correct interpretation. It is noteworthy that the use of *zf* decreases as soon as they have solved the question of how the man and woman in the speech bubble should be matched against the people in the police station in (10j). In the following part, they continue to discuss certain aspects of the picture, but there is less disagreement.

In summary, the particle *zf* is a grammatical device encoding epistemic proximity. Its function is to claim privileged knowledge of a certain state of affairs. The particle is not in functional opposition to the presentational construction, but it can be added to it. Such combinations are not very frequent in the corpus, but I provide one example below. In (11), Lucy Abia shows me a lizard that she has caught in her garden. She concludes the episode describing how she chased and finally caught the animal with the words in (11). The use of both the presentational construction and the particle *zf* can be explained by the fact that the dead animal was lying right next to her and that she claims epistemic authority over the state of affairs.

- (11) $zena$ $zane$ zf $d\ddot{o}$ $sa|kwr/\acute{e}$ $z=|y\acute{e}/$
 now PROX **ZF** lizard 1SG>3SG.M:RPST:PFV/kill **MED=3SG.M:NPST:IPFV/be**
 ‘Now I have killed this lizard here.’ [tci20120821-01 LNA 67]

7.5 The placeholder *bäne*

This section describes the placeholder *bäne*. In a previous description (Döhler 2018:112ff.), I have analysed the placeholder function as an extension of the spatial function of *bäne* as a medial demonstrative pronoun. Despite this etymological

origin (cf. Table 3), I have revised this analysis, concluding that *bäne* is not used spatially at all, i.e., the placeholder function is the main function of *bäne* (Döhler 2025). I argue here that there are several pragmatic uses of the placeholder that are related to intersubjectivity.

In example (12) below we find a typical placeholder use of *bäne*. In this context it is translated with English expressions such as ‘whatchamacallit’ or ‘thingamajig’. In (12), the speaker Maambu Kwozi talks about hunting for fish along the river-bank. In a moment of disfluency, he inserts a placeholder filler, then pauses for a moment, and then produces the target word.

- (12) *zöbthé zwa|wárez/é bäne=me ... köfä tot=me*
 first 1SG>3SG.F:RPST:PFV/aim **PH=INS** (280ms) fish spear=INS
 ‘First I aimed at it **with the whatchamacallit** ... with the fish spear.’
 [tci20130905-02 MKW 41–42]

In the example, *bäne* is inflected with the instrumental case (*bäne=me*) which mirrors the inflection of the target word (*köfä tot=me*). In fact, *bäne* can be inflected for all case markers, making it the “most prototypical pronominal” in the language. Table 4 shows all the forms below, and compares them to the proximal demonstrative pronoun *zane* and the second person singular pronoun.

Table 4: Case inflections on *bäne*.

	PLACEHOLDER			DEM	PERS. PRON
	INANIM	ANIM (SG)	ANIM (NSG)	PROX	2SG
ABS	<i>bäne</i>	<i>bäne</i>	<i>bäne</i>	<i>zane</i>	<i>bä</i>
ERG	–	<i>baf</i>	<i>baf-a</i>	–	<i>bné</i>
DAT	–	<i>baf-an</i>	<i>baf-anm</i>	–	<i>bun</i>
POSS	–	<i>baf-ane</i>	<i>baf-anme</i>	–	<i>bone</i>
SOURCE	<i>bäne=ma</i>	<i>baf-ane=ma</i>	<i>baf-anme=ma</i>	<i>zane=ma</i>	<i>bone=ma</i>
LOC	<i>baf=en</i>	<i>bafa-db=en</i>	<i>baf-anme-db=en</i>	–	<i>bun-db=en</i>
ALL	<i>bäne=fo</i>	<i>bafa-db=o</i>	<i>baf-anme-db=o</i>	–	<i>bun-db=o</i>
ABL	<i>bäne=fa</i>	<i>bafa-db=a</i>	<i>baf-anme-db=a</i>	–	<i>bun-db=a</i>
IC	–	<i>baf=rr</i>	<i>baf=ä</i>	–	<i>bn=rr</i>
INS	<i>bäne=me</i>	–	–	<i>zane=me</i>	–
PURP	<i>bäne=mr</i>	–	–	<i>zane=mr</i>	–
PROP	<i>bäne=karä</i>	–	–	<i>zane=karä</i>	–
PRIV	<i>bäne=mär</i>	–	–	<i>zane=mär</i>	–

Table 4 shows a second stem, which is *baf*, and therefore it would be more appropriate to speak of the “placeholder *bäne/baf*”, but for reasons of brevity I shall stick

with *bäne*. Also recall that – based on the initial /b/ consonant – the medial category in the demonstrative system is linked to second person pronouns. For an in-depth discussion of the placeholder *bäne* and its various extensions, I refer the reader to (Döhler 2025). For the remainder of this section, I want to delve into its pragmatic uses and discuss its underlying intersubjective functions.

Taking a pragmatic perspective, placeholder fillers like *bäne* can be interpreted as a signal that the speaker cannot think of the right word in a particular moment. In (12), the speaker is able to be more specific a moment later when the word comes to mind. However, there are also examples of *bäne*, especially in conversations, where the speaker does not produce the target word. One such example comes from a conversational narrative and a short exchange between Marua Bai (MAB) and Caspar Mokai (CAM) in (13). Caspar interrupts Marua's story about a visit to the Fly River that took place a long time ago. He asks him whether Marua and his friends were married at the time (13a), to which Marua replies "We were just boys". He tries to clarify his age at the time by adding that his beard had only just begun to grow at the time (13b). For this, he uses *bäne* and a pointing gesture to his left cheek, but he does not produce the target word *fäk thäbu* 'beard'. Caspar infers the correct referent from context and from the gesture and signals agreement (13c).

- (13) a. CAM: *bä fthé ηare=märe thf|rñ/m?*
 2.ABS when women=PRIV 2DU:PST:IPFV/be
 'This was when you two were not yet married?'
 b. MAB: *srak ... komnzo kwa zane -/nzä/- bäne ...*
 boy (.) just FUT PROX FS **PH** (.)
 thf|rñk/wrm.
 3PL:PST:DUR/grow
 '(I was just a) boy . . . **These watchamacallit** were just about to start growing.'
 c. cam: *mh*
 INTJ
 'Yes.' [tci20130927-06 MAB 186-187 CAM 25-26]

Another example comes from a botanical expedition in the area around Rouku with Janet Abia and Nakre Abia. During a walk along the riverbank, the two women identified a number of plant species and mentioned their various uses. In example (14), Nakre talks about a tree species called *kemäri*.⁸ After talking about the flowers and various other aspects of this plant, she mentions that it is also used for its strong

⁸ *Kemäri* is an unknown species of the myrtle family (*Xanthostemon* sp.).

timber. In (14a), she uses *bāne* without producing the target word, which could be *fr* ‘trunk’ or the English loan *temba* ‘timber’ in this context. Apparently, she is relying on the hearer (myself) to fill in the blanks correctly.

- (14) a. *nafane bāne b=|yé/ far=ma |yé/*
 3SG.POSS PH MED=3SG.M:NPST:IPFV/be post=PURP 3SG.M:NPST:IPFV/be
mnz far
 house post
 ‘Its **thingamajig** there is (used) for posts, for house posts.’
 b. *thkarthé |yé/*
 hard 3SG.M:NPST:IPFV/be
 ‘It is strong.’ [tci20130907-02 RNA 338-339]

On the surface, the only difference between the uses of *bāne* in (12) versus (13) and (14) is whether or not the speaker produces the target word. At the same time, I argue here that in (13) and (14) the speakers do not produce the target word because they rely on their interlocutors’ knowledge about the world, in other words they do not need to bother to produce the target word. In such instances, *bāne* should be paraphrased as ‘that thing which I know you know about’. Note that in some cases, speakers deliberately avoid pronouncing the target word for reasons of cultural sensitivity. For example, for people in a taboo relationship, one should not use personal names.

The reliance on common ground is best grasped by the notion of “recognitional deixis”, a concept that is at work if the hearer may be supposed to know what is being referred to. The concept has surfaced in a number of linguistic studies, e.g. in a study on the use of personal names in conversations (Sacks and Schegloff 1979), as a distinct type of use for demonstratives (Himmelmann 1996), and for analysing placeholders (Enfield 2003). For the Komnzo placeholder *bāne*, it is best modelled by assuming that the speaker disclaims epistemic proximity in the case of disfluency situations. Additionally, the speaker projects epistemic authority on the addressee in cases that involve recognitional deixis.

7.6 Conclusion

This chapter has delved into the demonstrative system of Komnzo and its various intersubjective uses. I have focussed on three grammatical devices: (1) the presentational construction that is used in discourse situations in which the speakers assumes that some entity or state of affairs is known to the hearer, (2) the

particle *zf* that is used in discourse situations in which the speaker wants to claim epistemic proximity, and (3) the placeholder *bāne* in its recognitional use, in which the speaker assumes sufficient knowledge on the part of the hearer.

By comparison to Andoke, the grammatical devices for expressing engagement in Komnzo are non-canonical in that they are not as grammaticalised, nor are they obligatory. The three devices do not fit into a neat paradigmatic opposition as in Andoke. Instead they are expressed by very different means, namely a syntactic construction, a particle, and a pronominal. These grammatical devices, on the other hand, all originate in the demonstrative system of Komnzo. However, they are rather contingent in their pragmatic function, as they mix and blend notions of access to knowledge, knowledge claim and situational awareness.

Abbreviations

(.)	pause
ABL	ablative case
ABS	absolutive case
ALL	allative case
ANA	anaphoric
ANIM	animate
DAT	dative case
DIM	diminutive
DIST	distal
DU	dual
DUR	durative
(E)	loanword from English
EMPH	emphatic
ERG	ergative case
F	feminine
FUT	future
FS	false start
IMP	imperative
INANIM	inanimate
INS	instrumental case
INTERJ	interjection
IC	inclusory case
IO	indirect object
IPFV	imperfective
IRR	irrealis
LOC	locative
M	masculine
MED	medial

NEG	negator
NPST	non-past
NSG	non-singular
ONLY	exclusive ('only X')
PFV	perfective
PH	placeholder
PL	plural
PLN	place name
PN	proper noun
POSS	possessive
PROP	propriative ('having')
PROX	proximal
PRIV	privative ('lacking')
PURP	purposive case
REDUP	reduplication
RPST	recent past
SG	singular
SOURCE	source case
STAT	stative
VENT	venitive ('hither')
ZF	particle <i>zf</i>

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Pierre-Yves Modicom

8 Epistemic verbs in Scandinavian languages: Person-bound paths of functional specialization

Abstract: The aim of this chapter is to examine (i) if and how some properties deemed typical of epistemic verbs in first-person contexts carry over to second-person contexts, and (ii) if different paths of pragmatic specialization can be identified for first- and second-person epistemic verbs. This contribution is intended as a pilot study, based on a set of opinion verbs in three neighbouring languages: Danish, Norwegian and Swedish. Using frequency data from the TenTen family of corpora, I show that there is indeed a massive flip from almost exclusively declarative contexts in the first person singular towards a large share of interrogative contexts in the second person, which is consistent with previous findings on the “interrogative flip” in the typological literature. Many other features of epistemic verbs, including their much-discussed “parentheticality”, seem to be lexically-driven, with each verb displaying its own statistical preferences and person not being a major factor in variation. In all three languages, the cognates of English *think*, which display a larger range of non-experiential uses than other epistemic verbs, also behave differently with respect to grammatical person. Their deictic-epistemic properties are less significant. On the other hand, these verbs also give rise to the most solid examples of pragmaticalization in the second person, in a specific slot, the utterance-final position, which corroborates a secondary expectation of the study, as to the topological specialization of subjective, first-person epistemic verbs vs intersubjective-second person epistemic verbs.

Keywords: Egophoricity, epistemic verbs, parentheticals, person, Scandinavian

8.1 Introduction

In typological research on epistemicity in interaction, the concept of egophoricity is used to designate the grammatical marking of asymmetric epistemic authority between speech act participants.

Acknowledgements: I would like to thank the reviewers and the editors for their feedback, which led to considerable changes for the better. All remaining mistakes and inaccuracies are mine.

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Egophoricity is closely connected with evidentiality, the grammatical marking of access to knowledge. Evidentiality relates primarily, though not exclusively, to the source of knowledge. Egophoricity conveys speaker involvement (see the introduction to the volume). Grammatical egophoricity is commonly observed on certain sets of verbs, most prominently verbs of cognition and emotion, but also, to some extent, verbs of volition and of intention (San Roque, Floyd and Northcliffe 2018). Overall, psychological verbs are the locus of egophoric marking. A reasonable explanation for this is the fact that these verbs are strongly experiential and express states of affairs to which the experiencer has immediate privileged access (see Hargreaves 2018 from a typological point of view). In other words: speaker involvement, the key factor for egophoric marking, overlaps with direct access to the state of affairs, a crucial matter for evidential strategies.

In declarative contexts, the speaker enjoys a specific epistemic authority when they talk about their own mental states (see Davidson 1984; but also Russell 1910). This semantic feature connects epistemic verbs to the realm of deixis and indexicality: the semantic mechanisms behind first-person statements about one's mental states are not representational or symbolic, they correspond to a case of direct experiential access to what is meant. From that perspective, egophoricity is a grammatical manifestation of the intrinsically deictic nature of epistemic meaning (see for instance Mitchell 2009; Hassler 2010; Abraham and Leiss 2012; Leiss 2012).

If we assume epistemic strategies to be sensitive to deixis, we can expect them to react to the interaction of speech act types and grammatical person. In many languages, egophoric features associated with first-person psychological predicates in a declarative context tend to carry over to the second person within an interrogative context. This phenomenon has been identified under the name “interrogative flip” in research on Southern American languages (see San Roque, Floyd and Northcliffe 2017:128; San Roque, Floyd and Northcliffe, Bergqvist and Kittilä 2019:10; Bergqvist 2021; Bergqvist and Grzech 2023; Faller 2024 among many other). In these egophoricity-marking languages, grammatical markers on the verb referring to the speaker in assertions refer to the addressee in questions.

The main goal of this chapter is to investigate to what extent this typically egophoric phenomenon can be observed in Scandinavian languages, which do not display egophoricity as a salient grammatical category – thus corroborating the hypothesis that the functional mechanisms behind grammatical egophoricity are grounded on a pragmatic (in this case: deictic) base. To distinguish possible lexical patterns of co-occurrence from the grammatical category of egophoricity, the more general functional bias will be labelled “deictic-epistemic”. If the assumption is correct, deictic-epistemic biases manifest the overarching deicticity of epistemic markers. Proper egophorics are deictic grammatical forms, much akin to Jakobson’s “shifters”, for example (Jakobson 1971 [1957]). But above all, deixis is a general

mechanism of language, by which symbolic and indexical material are combined to entrench representational contents into the context of production and reception. In that sense, using lexical and grammatical material to flag the epistemic authority of the speech act participants in the context of production is a genuinely deictic process.

To assess the similitude between deictic-epistemic biases and the categorial mechanisms of egophoricity, this chapter offers an empirical study relying on data retrieved from large corpora of Danish, Swedish and the Bokmål written variety of Norwegian.

The rest of this chapter is constructed as follows: Section 8.2 presents the state of the art; Section 8.3 presents the methodology of the study. Section 8.4 is devoted first to illocutionary values, and then to the placement of epistemic sub-clauses in the utterance. The conclusions can be read in Section 8.5.

8.2 State of the art

8.2.1 Epistemic authority and the idiosyncrasies of parenthetical verbs

In the Wittgensteinian tradition of philosophy of mind, and in the discussions borne out of Wittgenstein's and Anscombe's work (Anscombe 1957), it has long been claimed that the type of beliefs about knowledge informing the meaning of verbs like *know* or *believe* or *think* is actually not the same in the first person and in the other persons.¹ Ultimately, the verb *think* does not mean the same process in *I think* and in *she thinks*, because reports about third-person thinking are instances of descriptive knowledge ; on the other hand, self-reports on one's own thoughts do not involve descriptive knowledge of one's thoughts, but direct acquaintance with them. In other words : the meaning of *think*, *believe* or *know* is such that the difference between *I think* and *she thinks* cannot be fully captured by positing a unique meaning for *think* and compositionally combining it with the meaning of *I* vs. *she*. Person-bound epistemic authority implies that in declarative contexts, the first person of thought verbs has something special which is not captured by truth-conditional semantic descriptions of these verbs : *I think* or *I believe* stand in the vicinity of speech verbs in the first person.

¹ As early as 1910, Russell's seminal paper on "knowledge by acquaintance" vs "knowledge by description" already took first-person experience of mental states and pain as a point of departure (Russell 1910).

One of the earliest consequent implementations of this idea was made by J.O. Urmson in the 1952 paper in *Mind* where he coined the notion of “parenthetical verbs” for these items – a label which has been used in linguistics and in philosophy ever since. From the point of view of theoretical pragmatics, Anscombe (1957) has insisted upon the fact that first-person epistemic and intentional predicates are cases of non-descriptive (self-)knowledge. She maintains that any first-person statement involving a psychological verb enjoys a specific status. Similarly, many theoreticians and philosophers contend that first-person psychological predicates taking a complement clause, just like first-person speech act verbs in the same syntactic contexts, are semantically downgraded to expressive meta-indications about the speaker’s attitudes towards the content of the complement clause. The object argument of the epistemic verb is in fact the real descriptive content in the utterance. This functional demotion of the epistemic predicate may be pragmatically motivated, but it can be manifested syntactically by the disruption of the subordination link between the epistemic verb and the content clause. In that case, the epistemic construct is sometimes dubbed a “comment clause” (Heine and Kaltenböck 2021).

8.2.2 Parentheticality and embedding strategies

A survey of the huge body of grammatical literature on psychological verbs would go far beyond the limits of the present paper. Parenthetical properties have to do with the fact that mental verbs take a propositional argument; this propositional argument can be manifested by a full clause.

From a syntactic point of view, the clause denoting a mental content ought to be a subordinate clause (a “completive clause” or “noun clause” in school terminology). However, mental verbs display distinctive formal properties and these subordinate clauses may not be embedded through the same means as other completive clauses (see the discussion on “complement-taking predicates” in Boye and Harder 2021). Among these specific features, the most striking is the possibility to build the sentence without using a complementizer, for instance in example (1):

- (1) *Jeg tager det bare som en kompliment, at du synes min
I take it only as a a compliment that you think my
side er pæn. (Danish)²
site is clean
'I take it only as a compliment that you think my website is clean.'*

² All Danish examples are extracted from the daTenTen20 corpus on SketchEngine, last retrieved on July 23rd, 2024.

Here, *du synes* ‘you think’ takes a clausal argument without any marker of subordination. This absence of complementizer can be interpreted as syntactic deletion, as phonetic reduction or as a construction *per se*, associated with a specific kind of syntactic government. In Danish, for instance, we can assume this clausal argument to still be syntactically dependent on the epistemic verb, thanks to the existence of examples of the subject – adverb – finite verb order that is restricted to subordinate clauses. In (2), *alvorligt* ‘seriously’ stands between the subject and the finite verb, as does *ikke* ‘not’ in (3):

- (2) *Hvis ikke, synes jeg du alvorligt skal overveje at slutte*
 If not think I you seriously should.PRES consider to end
det her nu. (Danish)
 that here now
 ‘If not, I think you should seriously consider ending this now.’
- (3) *Personligt synes jeg du ikke skulle have brugt omkring 50% af din spalte plads, på et fordrag du syntes var kedeligt.* (Danish)
Personligt synes jeg du ikke skulle have brugt
 Personally think I you not should.PAST have used
 ‘Personally, I think you shouldn’t have spent about 50% of your column space on a lecture you thought was boring.’

Note, however, that this issue has to be judged separately for each language: in High German, for instance, where there is an OV / V2 asymmetry between V2 main clauses and verb-final (OV) subordinate clauses (as in 4), complementizer-free clausal arguments behave like main clauses example (5):

- (4) *Glaubst du, dass das unterhaltend ist ?* (German)
 Think you that it entertaining is
 ‘Do you think that it’s entertaining?’³
- (5) *Glaubst du, das könnte für Probleme sorgen ?* (German)
 Think you it could PREP problems cause
 ‘Do you think that could cause problems?’

³ German examples are extracted from the deTenTen20 corpus on SketchEngine, last retrieved on July 23rd, 2024.

Blanche-Benveniste (1989) calls the corresponding structure in French “weak government” (*rection faible*). In what follows, I will speak of “weak embedding” for the complementizer-free construction in (2) or (3) and of “strong embedding” for the canonical construction in (6) below, with the subordinator *at*:

- (6) *Hvis du synes at du har hørt melodien før, så er det nok Blacks "Wonderful Life" fra 1987.* (Danish)

Hvis du synes at du har hørt Melodi-en før
 if you think that you have heard melodie-DEF before
 ‘If you think you’ve heard the melody before, it’s probably Black’s “Wonderful Life” from 1987.’

Another salient well-known feature of epistemic verbs is the fact that they can easily be bypassed by *wh*-movement, as in (7):

- (7) *Så er det op til dig, hvad du synes ser mest interessant ud.* (Danish)

... *hvad du synes ser mest interessant ud*
 what you think looks most interesting out
 ‘Then it’s up to you what you think looks most interesting.’

Furthermore, epistemic verbs in the first person are highly frequent sources of pragmaticalized discourse markers (e.g. Schiffrin 1987; Günthner and Imo 2003; Aijmer 2011 and many other works).

This brings us to parentheticality in the narrow sense, which I define here as the constructional status of a complement-taking predicate whose syntactic dependency relationship with its propositional complement is partly or totally deficient. There is a parenthetical construction at hand when a syntactic cluster organized around the verb displays features of “structural independence” (Dehé and Kavalova 2007:1) from the clausal content over which it takes scope. Complementizer deletion can be regarded as a bridge from standard complementation towards parentheticality proper, which is manifested by the island phenomenon in (7) or by the use of psychological verbs in “comment clauses” and ultimately their pragmaticalization into discourse markers.

Some of these parenthetical properties are also attested for other kinds of verbs which take state of affairs or propositional contents as arguments and are sensitive to the person of the subject, such as speech act verbs. In some languages, they are also well-attested for other persons than the first (see, for instance, Martineau 1993 on Québec French). This raises considerable issues: is parentheticality linked to epistemicity or is it a relevant phenomenon for all verbs denoting attitudes towards postulated states of affairs? And more crucially for any attempt at

connecting parentheticality with egophoricity, are parenthetical constructions sensitive to grammatical person? As it seems, they are not ruled out from second- or third-person contexts, but there could well be either a cross-linguistic accessibility hierarchy, or a quantitative bias towards the first person, or both.

Bearing this in mind, I now turn to the language-specific analysis. I will make use of written data from three Scandinavian languages: Danish, Norwegian (Bokmål) and Swedish. Note that there are already previous studies dealing with these phenomena in oral Swedish, most notably Dahl (2000) and Bergqvist (2021), which tend to corroborate the idea that at least some mental verbs in this language display egophoric behavior. This is manifested by a gap in frequency, with mental verbs tending to occur in the second person in questions, and in the first person in assertions. As we shall see, these claims carry over to Danish and Norwegian, even in a corpus of written discourse.

8.3 Corpus-based investigation

8.3.1 Analytical issues

First, our general problem must be reformulated into one or several testable hypotheses. The following investigation is based on a sample of utterances involving first- or second person epistemic verbs as well as a clausal unit which, from a semantic point of view, designates the mental content taken as argument by the verb. The aim is to determine whether epistemic predicates, especially “parentheticalized” ones, are person-bound deictics replicating some properties of egophorics. If this is the case, we expect the following findings:

- In terms of frequency, the first person singular is strongly associated with declarative illocutionary force, and the second person, with interrogative illocutionary force. That being said, the “illocutionary force” has to be defined as the force of the sub-speech act containing the mental verb: semi-autonomous pragmaticalized units like “comment clauses” can bear an illocutionary value of their own, which needs not coincide with the illocutionary value of the larger utterance. A critical example for this mismatch would be a question tag, which is an interrogative parenthetical micro-unit, but very often acts as a mere modifier of an assertive main clause.
- In these expected canonical patterns, epistemic verbs show stronger signs of parentheticalization, starting with complementizer omission, up to pragmaticalization as a discourse marker.

A subsidiary question has to do with the placement of these discourse markers. In the light of recent research, the position of pragmaticalized markers is sensitive to their specialization for subjective vs. intersubjective usage (Beeching and Detges 2015; Van Olmen and Šinkūnienė 2021). Intersubjective markers tend to occur in the “right” (i.e. final) periphery of the utterance or of the turn; subjective markers tend to occur in the “left” (i.e. initial) periphery). The forms undergoing a pragmaticalization process are not the same at the beginning and at the end of an utterance, nor in a declarative and in an interrogative context. Especially, if we are right in assuming a continuum between personal deixis and epistemic deixis, we expect second-person parentheticals to prefer the final position of the clause, with a bias towards interrogative uses.

8.3.2 Data

The following study relies on data from Swedish, Danish, and Norwegian (Bokmål), taken from the TenTen family of corpora, retrieved via SketchEngine. We are not dealing with interactional data taken from oral contexts. A consequence of this bias towards written discourse is that the functions of discourse markers in turn-taking will be left out of consideration here. We can also expect a slight conservative bias and a lesser frequency of completely pragmaticalized occurrences. Conversely, it means that these corpus data are suitable for an analysis of incipient grammatical conventionalization as well as for the basic functions of parenthetical verbs.

Due to the perspective adopted for this chapter, I focus on utterances where the verb occurs together with a clausal unit which, from a semantic point of view, represents the content of thought. I leave aside contexts where the epistemic verb takes an NP (or a pronoun) as its content argument. In the first place, standard embedding uses and parenthetical constructions are all taken into consideration. The constructional distinction is studied in a second step.

The verbs considered for the analysis are the following:

- Danish : *tro* (‘believe’, ‘think’), *tænke* (‘think’), *synes* (‘it seems’ / ‘me thinks’ / ‘I think’).
- Norwegian Bokmål : *tro* (‘believe’, ‘think’), *tenke* (‘think’), *synes* (‘it seems’ / ‘I think’).
- Swedish : *tro* (‘believe’, ‘think’), *tycka* (‘think’, ‘regard’), *tänka* (‘think’).

Several parameters must be kept in mind for the analysis:

- From a semantic point of view, one should distinguish between experiential vs non-experiential (agentive) kinds of epistemic states (Modicom 2025:324–333).

For instance, English *I believe* has an experiencer subject and opinion verbs are generally experiential verbs: they express mental states that are not controlled by the subject; but at least some of these verbs can display non-experiential, agentive readings. In English, *to think about something* can be used to mean “to reflect about something, to consider something”. This point is important because the cognate verbs *tænke*, *tenke* and *tänka* display the same possibility of non-experiential usage (‘to intend’, ‘to consider’, ‘to reflect’). This is not the case for *synes*, *tro* or *tycka*, which are experiential verbs.

- Second, these three languages are all verb-second languages in declarative contexts. In other words, we can find the subject before example (8) or after example (9) the verb (here, *har* ‘have’).

- (8) *Du har ca 14 dage til at bekræfte din bruger-konto.* (Danish)
 you have approximately 14 days until to confirm you
 user-account
 ‘You have approximately 14 days to verify your user account.’

- (9) *Nu har du muligheden for et job på Danmarks hyggeligste arbejdsplads.* (Danish)
Nu har du mulighed-en for et job ...
 Now you have possibility-DEF for a job
 ‘Now you have the opportunity for a job at Denmark’s cosiest workplace.’

The VS (verb-subject) order is possible in all non-subordinate contexts and mandatory in questions example (10).

- (10) *Har du set denne person?* (Danish)
 Have you seen this person
 ‘Have you seen this person?’

The SV order, on the contrary, is possible only in subordinate clauses example (11) and in assertions.

- (11) *Varen skal IKKE sendes retur til os før du har modtaget en mail retur fra os.* (Danish)
 ... *før du har modtaget en mail retur fra os* (Danish)
 before you have received an mail back from us
 ‘The item should NOT be sent back to us until you have received a mail answer from us.’

Since I want to examine possible biases towards assertion or interrogation, SV and VS tokens must be treated separately.

- Regarding the syntactic relationship between the mental verb and the clausal argument, we must first distinguish between syntactic disintegration (parentheticality proper) and syntactic integration with classical embedding, exemplified by the presence of a complementizer. Then, the distinctive “weakly embedding” structure with complementizer deletion must be treated separately as a potential bridge towards parenthetization. This means that we have to consider three great syntactic types: proper parentheticals (disintegrated), semi-parentheticals (lacking a complementizer) and matrix verbs overtly subordinating their propositional complement.
- Once this is done, we have to consider whether the epistemic verb stands before the content clause, after it or within the clause itself.
- Finally, the tokens must be annotated for the assertive vs interrogative value of the construction centred on the epistemic verb.

For each verb, four strings were isolated, distinguishing first and second person singular use and subject-verb and verb-subject order. For each of the four strings, 200 tokens were retrieved. These four types will now be designated as follows: S1-V, S2-V, V-S1, V-S2.

8.4 Results

8.4.1 Absolute frequencies in the corpora

First, let us turn to absolute frequencies. The following series of charts presents the ratio of verb-subject and subject-verb strings in the corpora for all verbs of the sample and for the verbal form *har* ‘have’, which I use as control item. *Har* is external to the field of epistemicity and can be used as an auxiliary for the perfect tense of most verbs in Scandinavian languages, so that it approximates what an unmarked distribution would be. The figures read as follows: if the ratio is above 1, the VS order is more frequent than the SV order. The lower the ratio is, the more dominant the SV order.

Already the first results are strikingly convergent in all three languages (Danish in Table 1, Norwegian Bokmål in Table 2, Swedish in Table 3): first, the second person (S2) always shows a slightly higher share of VS constructions than the first person (S1) does. The highest gap is observed on belief verbs (*tror* and *synes / syns / tycker*). For these verbs, the VS order even overrates the SV order in

Table 1: VS/SV ratio in Danish.

•	S1	S2	Total number
har	0.29	0.54	6,326,749
ved	0.36	0.62	756,465
tænker	0.55	0.82	205,869
tror	0.53	2.31	864,482
synes	0.57	1.09	981,858

Table 2: VS/SV ratio in Bokmål.

•	S1	S2	Total number
har	0.35	0.49	3,094,957
vet	0.33	0.89	385,149
tenker	0.77	0.69	206,968
tror	0.71	2.22	839,011
syn(e)s	0.77	1.97	606,506

Table 3: VS/SV ratio in Swedish.

•	S1	S2	Total number
har	0.50	0.68	5,141,630
vet	0.33	0.76	983,660
tänker	0.54	0.58	431,439
tror	0.60	2.31	1,784,551
tycker	0.71	1.40	1,690.973

the S2 row. At the same time, they are consistently the most frequent two verbs of the epistemic domain in the sample, ranging above KNOW (*ved*, *vet*) and the cognate of *think*, which is always the least frequent of the four. This is a strong sign that the Scandinavian cognates of *think* differ strongly from their West Germanic counterpart: In Scandinavian languages, *tænke-tenke-tänka* are not the standard opinion verbs. On the contrary, they seem to behave like marginal items in the set of epistemic predicates. This specific behavior of *think*-cognates will be observable in the following queries, too, suggesting that other lexical features compete with deictic mechanisms and can inhibit them.

In the case of *tror*, all three languages exhibit exhibit a ratio above 2, meaning that VS is more than twice as frequent as SV when the verb stands in the second person. By contrast, the cognates of *think* follow a different cline. In Norwegian Bokmål (Table 2), we find one exception to the rise of the ratio in the second person:

the ratio between Norwegian *tenker du* and *du tenker* is below the ratio between *tenker jeg* and *jeg tenker*.

8.4.2 Sample analysis (1): propositional scope

Turning to the samples made of 200 tokens per construction per verb, let us first examine the share of propositional scope in the whole set. Here, too, the cognates of *think* behave idiosyncratically, with a much lower share than the other two verbs taken in each language.

Table 4: Number of tokens with propositional scope in each sample of 200 tokens : Danish.

	S1V	VS1	S2V	VS2
tror	164	134	111	108
synes	195	166	156	88
tænker	81	75	65	102

A first glance at the numbers for Danish (Table 4) suggests that lexical idiosyncrasies are stronger than person-linked or order-linked regularities. This is corroborated by the calculation of the p-value of this distribution through an analysis of variance: $p=0.6084$ if we take the four constructions as parameters of observation; but if the variation criterion is the lexical item, $p=0.0307$, meeting the classical threshold of 0.05. Thus, the hypothesis that variation is dependent on the lexical entry is plausible, whereas an analysis taking word order or person as the determining factors does not lead to acceptable results.

The results in Norwegian (Table 5) and Swedish (Table 6) are highly consistent. The p value for the person+order hypothesis is of 0.5719 in Norwegian and 0.2105 in Swedish, corroborating the irrelevance of these factors. The lexical determination hypothesis is much more convincing, with $p=0.0359$ in Norwegian and $p=0.0277$ in Swedish.

Table 5: Number of tokens with propositional scope in each sample of 200 tokens: Norwegian Bokmål.

	S1V	VS1	S2V	VS2
tror	187	133	140	116
synes	183	169	166	70
tenker	66	110	19	73

Table 6: Number of tokens with propositional scope in each sample of 200 tokens : Swedish.

	S1V	VS1	S2V	VS2
tror	184	172	125	136
tycker	156	167	122	113
tänker	105	126	46	71

In Norwegian and Danish, the verb with the highest share of propositional scope is *synes*. At the other end of the spectrum, *tänka*, *tenke* *taenke* display a wide range of non-experiential uses, especially intentional ones.

- (12) *Sådan har mine forældre også gjort, og jeg tænker at gøre det samme.* (Danish)
 ‘That’s also what my ancestors did, and I intend to do the same.’

These verbs also have the lowest share of wide-scope uses in the samples in Swedish and Norwegian. Both in Danish and in Norwegian, the gap between *tenker* / *tænker* and the other verbs narrows in the V-2SG construction, i.e. *tenker du* / *tænker du*. This is a first sign of a specific path of functional and formal specialization for this verb in the second person. Others are discussed below.

8.4.3 Sample analysis (2): share of direct questions

In what follows, I examine the frequency of each lexico-grammatical type in direct questions. I leave aside dependent interrogative clauses, where some properties of questions can be found, and where Scandinavian languages take S(-Adv)-V order. In direct questions, however, the main verb has to be preceded by the *wh*-item. For that reason, we can expect the figures to diverge dramatically between SV and VS configurations.

The general distribution in Table 7 (with Danish data) is significant ($p=0.0076$). After the analysis, person and word order appear to be approximately equally significant factors in a language like Danish. Examining variation only along the criterion of person, we find that $p=0.0412$; word order alone gives a p value of 0.0491, slightly less compelling than person.

The results from Norwegian (Table 8) and Swedish (Table 9) confirm that person and word order are on a par: $P=0.0341$ for person as a factor of variation in Norwegian (see the raw figures in Table 8) and 0.0120 in Swedish (Table 9). Word order is at 0.0293 in Norwegian (this time slightly more compelling than person), 0.0121 in Swedish.

Table 7: Number of tokens with a directive illocutionary force⁴ in each sample of 200 tokens : Danish.

	S1V	VS1	S2V	VS2
tror	0	0	8	93
synes	0	0	3	22
tænker	0	3	0	77

Table 8: Number of tokens with a directive illocutionary force in each sample of 200 tokens : Norwegian Bokmål.

	S1V	VS1	S2V	VS2
Tror	0	1	14	95
synes	0	0	8	59
tenker	0	6	2	33

Table 9: Number of tokens with a directive illocutionary force in each sample of 200 tokens : Swedish.

	S1V	VS1	S2V	VS2
tror	0	0	4	136
tycker	0	0	5	113
tänker	0	0	0	59

8.4.4 Sample analysis (3): Position within the clause

8.4.4.1 Pre-clausal placement

Regarding the position before the clausal argument, at least two questions have to be raised:

- (i) Of all person-order patterns, should we expect one of them to be over- or under-represented in the construction before the clausal argument? At first sight, we would not expect order to be a major factor, because the pre-clausal position can correspond either to a subject-verb cluster or to an X – verb – subject cluster, where X can be an anaphoric, deictic or argumentative adverb, for instance.

⁴ For reasons of terminological convenience, I use *directive* as a cover term for all flavors of questions and requests. Note that this would not necessarily be the case if we were also considering non-epistemic directive speech acts.

- (13) *Så synes jeg det er et dårligt køb* (Danish)
 So think I it is a bad purchase
 ‘So I think it’s a bad purchase.’

- (ii) Are “weakly embedding”, parenthetical constructions without a complementizer sensitive to person? Or do they depend on lexical content?

The first results for Danish (Table 10) suggest that significant regularities are observable ($p = 0.0289$):

Table 10: Strongly vs weakly embedding pre-clausal epistemic constructions in each sample of 200 tokens: Danish.

	1sg + V	V + 1sg	2sg + V	V + 2sg
tror + COMPL	72	37	49	35
tror – COMPL	89	55	40	45
synes + COMPL	57	41	26	36
synes – COMPL	130	49	78	25
tænker + COMPL	50	28	31	24
tænker – COMPL	26	16	27	24

Because *tænker* seems to behave oddly, we can recalculate P for *tror* and *synes* only, and then $p = 0.0164$. However, if we take the same figures but test them for lexical entries, we have $p = 0.0986$. This means that lexical factors are relevant to isolate *tænker* from the other two, but are not a convincing factor to analyze the distribution as a whole.

Taking the strongly and weakly embedding constructions of all three verbs, neither person nor word order is a statistically significant factor on its own.⁵ Without *tænker*, however, the distribution by person becomes narrowly significant ($p = 0.0512$), whereas the p -value of the distribution by word order is almost unchanged at 0.0904. In other words: *tænker* does not behave differently from the other two with respect to word order, but it does differ from them when it comes to the selection of the grammatical person of the subject.

In Norwegian (Table 11), the general distribution has a p -value of 0.3182, which is not improved if we leave *tænker* aside (0.3382).

Thanks to further statistical analysis, it was possible to isolate one grouping where the distribution shows a convincing p -value: if we separate V+2sg from the other two and compare the first three columns, which are almost always instances of declarative or subordinate contexts, with the fourth one, where interrogative

⁵ $P = 0.1336$ if we group the columns by person, $P = 0.0992$ if we group them by word order.

Table 11: Strongly vs weakly embedding pre-clausal epistemic constructions in each sample of 200 tokens : Norwegian Bokmål.

	1sg + V	V + 1sg	2sg + V	V + 2sg
tror + COMPL	31	23	27	15
tror – COMPL	152	47	70	64
synes + COMPL	22	15	12	7
synes – COMPL	143	72	99	39
tenker + COMPL	49	45	35	20
tenker – COMPL	13	19	1	11

clauses have a much higher share, we end up with $p=0.0349$. If we leave aside the question of whether these verbs demand a complementizer or not, p is improved to 0.0229. However, this raises the question of what we are actually measuring: these results suggest that the use of these verbs in pre-clausal position is sensitive to illocutionary types, and not to person per se.

The only robust takeaway from this observation seems to be on the lexical side: *tenker* diverges from the other two verbs inasmuch as it is preferably constructed with a complementizer. The other two verbs strongly prefer the construction without a complementizer in any context. By contrast, in Danish, *tænker* is the only verb which systematically prefers the construction with a complementizer, but this does not mean that the other two systematically prefer the complementizer-less construction. The constructional idiosyncrasy of Norwegian *tenker* is much sharper than it is for Danish *tænker*. Swedish, finally, tells a different story, because the complementizer-less construction is systematically less frequent than the strongly embedding one (Table 12). Note, however, that a gap between *tänker* and its rivals can still be observed: *tänker* is the only verb where the complementizer-free construction never scores above 5 tokens per type.

Table 12: Strongly vs weakly embedding pre-clausal epistemic constructions in each sample of 200 tokens : Swedish.

	1sg + V	V + 1sg	2sg + V	V + 2sg
tror + COMPL	111	71	70	82
tror – COMPL	69	28	24	8
tycker + COMPL	93	50	49	63
tycker – COMPL	48	35	32	16
tänker + COMPL	102	97	40	40
tänker – COMPL	1	0	5	1

Just like in Norwegian, there is no other significant takeaway from these figures ($p=0.2518$) except if we oppose the fourth row to the other three, with the same limit as before:⁶ we are isolating a construction with a cluster of heterogeneous properties and “see” that its distribution is significantly different from a group that is defined as everything else, which is hardly useful.

Thus, as a whole, the results are inconclusive: it was not possible to isolate a positive influence of person on the distribution of epistemic verbal construction in pre-clausal position in Norwegian and in Swedish. Danish, on the other hand, could display such a deictic-egophoric dimension. There is, however, one consistent takeaway from these figures, which is the systematically lower range of syntactic parenthetization of *think*-cognates, which demand or prefer syntactic embedding with a complementizer.

8.4.4.2 Utterance-final position

In a Germanic V2 language, utterance-final epistemic verbs tend to show the VS order. This is also what we find in the sample, where there is not a single example of SV order in Danish or in Norwegian, and merely one in Swedish.

That being said, the observations do not necessarily lead to significant results. In Danish (Table 13), the results are strongly diverging ($p=0.2433$), leading to the hypothesis that variation is bound to strictly lexical factors. Once more, *tænker du* appears to be the item disrupting the picture:

Table 13: Utterance-final epistemic constructions in each sample of 200 tokens : Danish.

	1sg + V	V + 1sg	2sg + V	V + 2sg
tror	0	23	0	2
synes	0	8	0	5
tænker	0	24	0	51

This *tænker du* is almost always modified by an adverb or a particle (*nu* ‘now’, *så* ‘so’, *måske* ‘maybe’, *sikkert* ‘certainly’). Its value mostly has to do with the anticipation of the addressee’s reactions. Unsurprisingly enough, the written medium

⁶ In that case, $p=0.0139$, improved to 0.0039 if we disregard the question of the complementizer. By comparison, in Danish, the same grouping would give $p=0.0014$, deteriorated to 0.0194 if we leave aside the question of the complementizer.

biases the usage towards something less interactional and more argumentative: ‘think’ here doesn’t necessarily refer to something that the addressee may believe, but much rather to what they are likely to have in mind.

- (14) *Ahem, men hvordan kommer alt dette så helt præcist til at have indflydelse på min virksomheds annoncering/annonceringsstrategi på Facebook, tænker du måske? Præcis hvilke ændringer der kommer til at ske og hvilke konsekvenser disse har for dig som annoncør/virksomhed.*

‘Er, but how exactly will all this affect my company’s advertising/advertising strategy on Facebook, *you might think*? Exactly what changes will occur and what consequences these have for you as an advertiser/company.’

In Norwegian (Table 14) and Swedish (Table 15), the results are more consistent ($p=0.0085$ for Table 14, 0.0012 for Table 15): the *think*-cognate is slightly less frequent in the second person than in the first, and the gap widens for the other two verbs. This suggests that *tænker* is further advanced in the pragmaticalization process in Danish than its cognates in the other two languages.

Table 14: Utterance-final epistemic constructions in each sample of 200 tokens : Norwegian Bokmål.

	1sg + V	V + 1sg	2sg + V	V + 2sg
tror	0	31	0	7
synes	0	26	0	5
tenker	0	43	0	36

Table 15: Utterance-final epistemic constructions in each sample of 200 tokens : Swedish.

	1sg + V	V + 1sg	2sg + V	V + 2sg
tror	1	22	0	6
tycker	0	37	0	13
tänker	0	24	0	23

The final position is well-attested cross-linguistically for V-S(P1) (*tror jeg, synes jeg* etc. type). In average, there are around 20 tokens of utterance-final placement for each sample of 200. That position is only episodically attested for the V-S2 type (5 to 10 tokens / sample) except for *tänka* and its cognates (more than 20 tokens / sample, and even 51 tokens / 200 for *taenker du* in Danish). This use of *tænker du / tenker*

du / tænker du is almost exclusively interrogative: we can suspect that we are faced with a pragmaticalized question tag.

8.4.4.3 Clause-internal position

These items are also well-attested as parentheticals within the clause. This time, *tänka* and its cognates seem much less prone to clause-internal positioning than the other verbs. One should also note the fact that among the landing sites for these verbal constructs, the slot between the first phrase of the declarative clause and the finite verb is very common:⁷

- (15) *Teori og empiri vil jeg gerne tale om. Resten synes jeg bliver ret useriøst.*
(Danish)

... *Resten synes jeg bliver ret useriøst*
rest-DEF think I turns quite bad

‘I would like to talk about theory and empiricism. The rest, *I think*, is quite frivolous.’

In Danish (Table 16), the results are crystal clear: no statistically significant relationship can be found if we take person or internal word order as determining factors ($p=0.4656$). However, if we test the hypothesis of a lexically-driven variation, we get a p -value 0.0428 :

Table 16: Clause-internal epistemic constructions in each sample of 200 tokens : Danish.

	1sg + V	V + 1sg	2sg + V	V + 2sg
tror	3	14	22	25
synes	9	43	47	20
tænker	3	5	7	1

Similarly, in Norwegian (Table 17), taking constructional patterns as drivers of variation yields non-significant results ($p=0.3154$), whereas lexically-driven variation is a much more robust hypothesis ($p=0.0518$).

⁷ This pattern is not specific for Scandinavian languages, and has also attracted the attention of Axel-Tober, Coniglio Müller and Paul (2025) in German.

Table 17: Clause-internal epistemic constructions in each sample of 200 tokens : Norwegian Bokmål.

	1sg + V	V + 1sg	2sg + V	V + 2sg
tror	4	32	43	30
synes	18	55	55	20
tenker	2	2	13	6

The same holds for Swedish data (Table 18), with $p=0.4611$ if we take constructional features as drivers, but $p=0.0276$ if we re-calculate the results assuming that variation is lexically-driven.

Table 18: Clause-internal epistemic constructions in each sample of 200 tokens : Swedish.

	1sg + V	V + 1sg	2sg + V	V + 2sg
tror	3	37	31	39
tycker	15	43	41	20
tänker	0	5	1	5

8.5 Conclusion

Let us first summarize the results of this study.

- There is indeed a massive flip in frequency from almost exclusively declarative contexts in the first person singular towards a large share of interrogative contexts in the second person. The grammatical person proves to be a statistically significant factor. This finding corroborates the idea that there is a continuum between grammatical egophoricity and more general deictic features associated with the functional domain of epistemicity.
- The type of complementizer-less embedding that is typical for epistemic verbs and speech act verbs seems to be lexically-driven: not all opinion verbs are equally prone to embed their clausal argument without a complementizer. It is also not the same across Scandinavian languages.
- In all three languages, the cognates of English *think* are rather non-typical epistemic predicates: they exhibit a range of agentive, non-experiential uses and can also convey agent control over the thinking process. Conversely, these verbs also display the smallest level of syntactic and person-related idiosyncra-

sies. This strongly suggests that the semantic profile of the subject argument is a key factor at play: the interrogative flip depends on the subject being framed as an experiencer.

However, these *think*-cognates are also the verbs with the most distinctive pragmaticalized use in the second person. *Tænker du* (Danish), *tenker du* (Norway), *tänker du* (Swedish) are not only the most distinctive frozen or semi-frozen second-person constructions in the corpus data at hand: they are also the most frequent epistemic units in utterance-final position. The final margin of the utterance seems to indeed be a privileged locus for discourse markers with intersubjective functions⁸.

Overall, the results of this pilot study corroborate the claim that while Scandinavian language do not display egophoricity as a morphosyntactically relevant grammatical category, the behavior of epistemic verbs shows the same properties that were also observed on grammatical egophorics in other languages, most notably the interrogative flip. That being said, the precise characteristics of first- vs. second-person verbal constructs appear to be strongly dependent on lexical features.

Furthermore, even in languages as closely related as Danish, Swedish and Norwegian and on the basis of written corpora, these features are subject to significant variation from one language to the other. The deictic bias associating declarative contexts with first-person authority on opinion verbs and interrogative contexts with second-person authority may offer a key to approach language-specific phenomena, but it is not evenly manifested. One of these unequally relevant language-specific parameters is the constructional degree of parenthetization. However, in line with the argument formulated by Axel-Tober and Müller (to appear), the complementizer-free construction of epistemic verbs preposed to their clausal argument does not seem to be a credible locus for the incipient pragmaticalization of these predicates into discourse markers. On the contrary, the use of *tenker du* in late position is the most credible candidate to the role of an emerging discourse marker in the sample under consideration here. Consequently, the present study is also an invitation to shift the focus away from syntactic parenthetality and to regard epistemic verbs primarily as stance-markers with a tendency to pragmaticalization; the opposition between first and second person appears to be a major factor weighing on the pragmaticalization paths followed

⁸ This means that research on mental verbs or so-called “parenthetical verbs” may need to focus less on “parenthetality” as a syntactic property and less on first-person forms, too: assuming that epistemic predicates are intrinsically deictic, we should focus more on second-person forms.

by these verbs, corroborating the claim that categorial egophoricity supervenes on functional biases that are clearly manifested even in languages lacking conventionalized evidential and/or egophoric grammatical marking.

List of abbreviations used in the glosses

DEF	Definite
PAST	Past
PREP	Preposition
PRES	Present

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Part 3: **New parameters in epistemic research**

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9 Egophoricity and formality in Kathmandu Newā

Abstract: This paper examines the relationship between egophoricity and formality in Kathmandu Newā. The analysis is derived from extending the egophoricity paradigm in the language to include a previously undocumented feature, the \emptyset egophoric marking, in addition to the binary pair of the egophoric and non-egophoric markings. I first show that the \emptyset egophoric marking can be established as a significant category that signals the absence of the egophoric feature. I make a case for it by showing the effect of the \emptyset egophoric marking on the register of interactions in various pragmatic contexts – these interactions utilize verbs from two main semantic verb classes in Kathmandu Newā – volitional and non-volitional. The \emptyset egophoric marking proves to be instrumental in affecting nuanced informal and formal registers in interactions in the language, and shows that egophoric marking, conversely, can affect formal registers. My findings testify to the relationship between egophoricity and formality in Kathmandu Newā and shed light on the role of egophoricity as a politeness strategy in upholding the mental autonomy of the addressee.

Keywords: Egophoricity, Formality, Epistemic Access, Politeness Theory, Kathmandu Newā

9.1 Introduction

Egophoricity is a grammatical category that encodes a speech-act participant's epistemic authority over an event (Creissels 2008; San Roque, Floyd and Norcliffe 2018). It has gained increasing attention in Tibeto-Burman linguistics since the pioneering work on Kathmandu Newā (Hale 1980), where the binary morphological contrast on verbs, the egophoric/non-egophoric marking, was initially labeled *conjunct/disjunct* marking (e.g., DeLancey 1992, 1997; Tournadre 2008; Tournadre and LaPolla 2014). These early works have provided canonical examples of egophoricity in Kathmandu Newā, where epistemic authority was described to mainly reside with “the person assumed to have privileged access to the intentions for an action” (Hargreaves 2018:81). This means that an egophoric marker becomes default on a first-person intentional actor who, in interactional settings, typically turns into the

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speaker, and a second-person intentional actor who, in an interrogative within an interaction, turns into the addressee.

The latest literature on egophoricity has described the phenomenon in numerous indigenous languages worldwide, also observed mainly in first-person declarative clauses, second-person interrogative clauses, and third-person declarative and interrogative clauses (Roque, Floyd and Norcliffe 2018). This pattern has been commonly recognized as the egophoric distribution, summarised in Table 1.

Table 1: Egophoric distribution in Kathmandu Newā.

PERSON	DECLARATIVE			INTERROGATIVE			
1	<i>Ji</i>	<i>ana</i>	<i>wan-ā</i>	<i>Ji</i>	<i>ana</i>	<i>wan-a</i>	<i>lā?</i>
	1.SG	there	go-PST.EGO	1.SG	there	go-PST.NONEGO	Q
	'I went there.'			'Did I go there?' (in amnesia)			
2	<i>Cha</i>	<i>ana</i>	<i>wan-a</i>	<i>Cha</i>	<i>ana</i>	<i>wan-ā</i>	<i>lā?</i>
	2.SG	there	go-PST.EGO	2.SG	there	go-PST.EGO	Q
	'You went there.'			'Did you go there?'			
3	<i>Wa</i>	<i>ana</i>	<i>wan-a</i>	<i>Wa</i>	<i>ana</i>	<i>wan-a</i>	<i>lā?</i>
	3.SG	there	go-PST.NONEGO	3.SG	there	go-PST.NONEGO	Q
	'S/he went there.'			'Did s/he go there?' (Hargreaves 2018)			

An exceptional case of egophoric marking in third-person clauses includes embedded clauses where the subjects of the matrix and embedded clauses both coincide in a “logophoric agreement” (DeLancey 1992:58):

- (1) a. Wā: wa ana wan-ā dhakā dhāl-a
 3.SG.ERG 3.SG there go-PST.EGO say.COMP say-PST.NONEGO
 'He_i said that he_i went there.'
- b. Wā: wa ana wan-a dhakā dhāl-a
 3.SG.ERG 3.SG there go-PST.NONEGO say.COMP say-PST.NONEGO
 'He_i said that he_j went there.'
- (Hale 1980:95)

In this context, the non-egophoric¹ form also occurs but with a disjunction between the subjects of the matrix and embedded clauses, as seen in (1b). In Kathmandu Newā, research on these clause types and their distribution across different lan-

¹ I have changed the gloss for disjunct/non-egophoric verbs from PFV.DJ (the perfective disjunct marking from previous literature) to PST.NONEGO (a past non-egophoric marking) to keep the gloss for egophoric and non-egophoric verbs consistent for tense instead of aspect.

guage domains (Hargreaves 2018) has expanded the set of conditions needed for marking egophoricity, as compared to older literature, to include:

- (i) *Epistemic authority* which resides in the person with access to the will or intention for an action (Hargreaves 2018).
- (ii) *Involvement* of at least one speech-act participant in the event within the proposition (Hargreaves 1991; Creissels 2008).
- (iii) *Privileged access* to the “ontological subjectivity” (Searle 1995; cited in Hargreaves 2018:101) of the inner state of a speech-act participant.

The egophoricity system in Kathmandu Newā, thus, has been described as exhibiting a binary morphological contrast on verbs – egophoric when these conditions are met and non-egophoric when these conditions are not met – i.e., (i) when epistemic authority does not come from access to the will or intention behind an event; (ii) when neither speech-act participant is involved in the event, and (iii) when there is no privileged access to the subjective inner state of a speech-act participant – in verbs that fall into two main semantic classes in Kathmandu Newā: volitional and non-volitional (Hargreaves 1991).

9.2 Prior research on egophoricity: the overlap of evidentiality

Stemming from the mentioned conditions of epistemic authority, involvement, and privileged access to knowledge within an event, the description of egophoricity as a grammatical category has often merged with that of evidentiality – a linguistic category also known to “signal the source of information for an utterance” (Bergqvist and Kittilä, 2020:2). For one, when sourced from the self’s willful involvement in an event, epistemic authority in an egophoric clause in Kathmandu Newā can be attributed to “intimate and immediate knowledge of a situation” (Garrett 2001:5) also borne by the ego-evidential category in Tibetan.

In contrast, when sourced from the self’s unwilling involvement in an event, such as in events out of one’s control, and when sourced from the non-self’s involvement in an event, such as the involvement of a third person or an inanimate object, epistemic authority in a non-egophoric clause in Kathmandu Newā can be attributed to coming from ‘direct evidence’ as described for any “assertion based on perceptual evidence” (Garrett 2001:5) in Tibetan. There is a third category in the evidential system of Tibetan – the ‘indirect evidence’ – which covers clauses based on hearsay, for example, that do not feature in the egophoric paradigm of Kathmandu Newā.

As for the third condition of privileged access, the very term has been articulated within studies on Lhasa Tibetan as such: “. . .there are facts I can know in a certain way which others cannot know in the same way” (Garrett 2001:16). Much like Hargreaves’ description of the term for Kathmandu Newā as the “ontological subjectivity of the inner state of a participant”, the concept of privileged access falls within the description of ego-evidentiality, the sub-category of Tibetan evidentials associated with “self-knowledge or attitudes *de se*” (Garrett 2001:7). Privileged access, as such, encompasses the concepts within ‘epistemic authority’ and ‘involvement’ for it represents the inner-most seat of knowledge a speech-act participant can possess. For convenience, thus, I will distill the discussed conditions for egophoricity and evidentiality into the singular term of ‘privileged access’ as a key reference term hereon.

There are clear parallels between the conditions needed for the use of egophoricity in Kathmandu Newā and the evidential system in Tibetan. The very first discussion that coined the term ‘egophoricity’ (Tournadre 1992; cited in San Roque, Floyd and Norcliffe 2018) also centered around morphemes in Lhasa Tibetan that indicate the same principles of privileged versus non-privileged access to knowledge within a speech act, which subsequently got analyzed as the language’s evidential system (San Roque, Floyd and Norcliffe 2018). The categorical overlap of evidentiality on egophoricity has, therefore, featured in academic discussion since the beginning of the study of the epistemic system of Kathmandu Newā.

Situating this chapter in such a narrative, I propose formality in interactional language as an additional variable, one that interacts with egophoricity independently from the evidence-sourcing operations in speech-acts in Kathmandu Newā. My proposal arises from the description of a third value of egophoricity. Specifically, I argue that in addition to egophoric and non-egophoric marking, as standardly described, there is also the possibility for the absence of egophoric marking, a value I refer to as the \emptyset egophoric. Crucially, the assumption that the \emptyset egophoric marking differs from non-egophoric marking implies that egophoricity is a bivalent feature where both the positive (egophoric) and the negative (non-egophoric) values are meaningful, rather than monovalent, where non-egophoric marking would be conceptualised as the meaning that arises in the absence of egophoric marking (see for example, Bafle and Manzini (2019) for a discussion on monovalent vs. bivalent features in phonology and syntax). I argue that we have to distinguish non-egophoric marking from the absence of egophoric marking, the \emptyset egophoric, which has its own morphological, semantic, and pragmatic correlates, and which further sheds light on the role of formality in the egophoric paradigm of Kathmandu Newā.

9.3 Methodology

I demonstrate the existence of the \emptyset egophoric marking using a dataset prepared by constructing interactions that feature it using my native-speaker competence. As no curated corpora for formal and informal interactions in Kathmandu Newā exist, I follow Newmeyer (2020), who writes that “if a sufficiently large corpus is used, the findings based on data elicited from native-speaker language intuition are the same as the corpus data of conversations” (Newmeyer 2020; cited in Shi and Xie 2022:606). Additionally, I have verified the constructed interactions with three language consultants – two native speakers and a Kathmandu Newā language teacher.

Upon verification, I compare interactions that feature the \emptyset egophoric marking to those that feature egophoric and non-egophoric markings from previous literature and the new dataset, framing the comparison around the pragmatic and morpho-syntactic properties of each interaction. This, in particular, is a method I choose to follow as I intuited that the factors that differentiate interactions with the \emptyset egophoric marking from those with egophoric and non-egophoric markings are indeed the pragmatic and morpho-syntactic aspects of the language. The pragmatic properties compared in these exercises include the register of interaction as a main property, and social equality and distance between the speech act participants as associated properties. The morpho-syntactic properties under comparison include the pattern of agreement among different parts of speech, which tie closely with the register of interaction (see Section 9.5 and 9.6 for an elaboration).

Another important method included in this study is supplementing each constructed interaction with an interactional context. My life years as a person from the Kathmandu Newā community helped me easily think of interactions between different members of Newā society, and the interpersonal dynamics they would be embedded in. I also observed that conversational context was missing in the canonical examples documented since the 1980s. It therefore became important to assign a conversational context to the canonical and constructed examples, outline their pragmatic and morpho-syntactic properties, and conduct the mentioned comparative exercises to cull out differences that shed light on the nature of egophoricity.

In Section 9.4, therefore, I use widely cited examples from previous literature, provide a context for their possible occurrence, and supplement them with pragmatic properties as outlined above. I use the volitional verb *wan-* (go) and the non-volitional verb *thyan-* (arrive) that feature prominently in previous literature (Hale 1980; Hargreaves 2005).

Section 9.5 introduces the \emptyset egophoric marking and its pragmatic properties through constructed examples of informal interaction in the language. I initially use the volitional *wan-* (go) and the non-volitional *thyan-* (arrive), and situate the interactions in different contexts of nuanced informality among three different pairs of speech act participants. I then survey the occurrence of the \emptyset egophoric marking on volitional and non-volitional verbs across the language to attest to its prevalence beyond the verbs *wan-* and *thyan-*. As the \emptyset egophoric marking on *wan-* and *thyan-* produces a distinct (nasal) phonological sound, I sub-classify the remaining volitional and non-volitional verbs by their morpho-phonemic stem-final consonants (Sresthacharya 1981; Malla 1986) to attest to a similar phonological distinction in their respective \emptyset egophoric inflections.

Section 9.6 examines the occurrence of the \emptyset egophoric marking in interactions with nuanced formality in Kathmandu Newā. I also construct interactions that elucidate the role of egophoricity in augmenting formality in the language to provide further empirical evidence to support the hypothesis of the relationship between egophoricity and formality in Kathmandu Newā.

Section 9.7 discusses observations from the comparative exercises between minimal pairs of interactions within the dataset.

9.4 Pragmatic properties of EGO and NON-EGO (volitional verbs) in Kathmandu Newā

We know by now that in the domain of volitional verbs, egophoric marking is expected in declaratives (2b) where the speaker (S) holds privileged access, while in interrogatives (2a) the addressee (A) does. This fundamental epistemic property is indicated on the top line of every example, which also includes information on the clause type and speech-act participant. Non-egophoric marking, on the other hand, is expected in declaratives and interrogatives where neither speaker nor addressee is involved in the propositional event, and thus do not possess privileged access as in (3). This epistemic property is differentiated from that of egophoric examples like (2) with an unequal sign between the speech-act participant and privileged access.

- (2) Context: *Person X misses a party and asks his colleague, Person Y, if she went.*
- a. Interrog: A = Privileged Access
- | | | | |
|-----------|-------|-----------------|-----|
| Cha | ana | wan-ā | lā? |
| 2.SG.INFM | there | go.INFM-PST.EGO | Q |
- ‘Did you go there?’

- b. Decl: S = Privileged Access

Ji ana wan-ā

1.SG there go.INFM-PST.EGO

‘I went there.’

(Hale 1980:85)

- (3) Context: *Person X asks Person Y if their colleague Person Z attended a party*

- a. Interrog: A ≠ Privileged Access

Wa ana wan-a lā?

3.SG.INFM there go.INFM-PST.NONEGO Q

‘Did he go there?’

- b. Decl: S ≠ Privileged Access

Wa ana wan-a

3.SG there go.INFM-PST.NONEGO

‘He went there.’

(Hale and Shrestha 2006:57)

To supplement these interactions with relevant pragmatic properties, I begin by noting down their register, followed by respective details of social status, equality, and distance between the speech act participants. In this section and the ones to follow, I distinguish registers according to the categories ‘plain informality’, ‘nuanced informality’, ‘plain formality’, and ‘nuanced formality’. The categories of ‘nuanced informality’ and ‘nuanced formality’ are further diversified according to specific dynamics between different pairs of speech act participants, discussed in Sections 9.3 and 9.4.

Each register is then attributed with information on the social equality or inequality of the speech act participants and the social distance between them. Social equality is divided into three categories, including where the speaker and addressee, and the third-person referent ‘R’ in third-person clauses, are equal ($S=A$ and $S=A=R$); where the speaker is superior to the addressee, and both superior to the third-person referent in third-person clauses ($S>A$ and $S \text{ and } A>R$); and where the speaker is inferior to the addressee, and both inferior to the third-person referent in third-person clauses ($S<A$ and $S \text{ and } A<R$).

Social distance, on the other hand, is divided into the categories of ‘neutral’, ‘distant’, and ‘proximate’. The ‘neutral’ category indicates relations that are neither intimate nor distant, such as that between contemporaries; the ‘distant’ category would have the relation between distant relatives as a fit example; and the ‘proximate’ category would have childhood friends as a fit example. These examples bear the pragmatic property of social equality, which means that social non-equals, too,

will have their respective examples for each category of social distance. Following this system, the pragmatic properties of (2) and (3) can therefore be summarized as follows:

Table 2: Verb inflection based on pragmatic properties for (2) and (3).

SOCIAL EQUALITY	SOCIAL DISTANCE	REGISTER			
		Nuanced Informal	Plain informal	Plain formal	Nuanced Formal
(2) S=A	Neutral		EGO		
	S>A		EGO		
(3) S=A=R	Neutral		NON-EGO		
	S and A>R		NON-EGO		

In (2), an informal interaction with S=A, such as colleagues or friends, or S>A, such as between a senior and junior colleague, employs the informal second-person pronoun *cha*, which agrees with an informal root verb *wan-* (go). The verb inflects egophorically with the suffix *-ā* as the speaker seeks privileged access. This sequence, namely of an informal pronoun, an informal root verb, and an egophoric inflection, produces a plain informal register as marked in Table 2, which I consider as the baseline for the pragmatic property of the register.

Similarly, in (3), an informal interaction between colleagues or friends about a third-person referent who is an equal or inferior, employs the informal third-person pronoun *wa*, which agrees with an informal root verb *wan-* (go). The verb inflects non-egophorically with the suffix *-a* as the speaker seeks access to the addressee’s knowledge sourced from perceptual evidence (Garrett 2001). This sequence produces a plain informal register, too.

Further, as the egophoric and non-egophoric inflections in Kathmandu Newā were documented in both past and non-past tenses to form the prevailing paradigm for egophoricity in the language (see Table 3), I will continue this section to include examples from the non-past tense for the verb *wan-* (go).

Table 3: Egophoric paradigm in Kathmandu Newā (Hargreaves 2005:11).

	PAST		NON-PAST
EGO	<i>ā</i>		<i>-e</i>
	PERFECTIVE	IMPERFECTIVE	NON-PAST
NON-EGO	<i>-a</i>	<i>-V:</i>	<i>-i</i>

The non-past forms of volitional verbs in Kathmandu Newā have been documented to have the *-e* suffix for egophoric and the *-i* suffix for the non-egophoric. These are demonstrated in (4) and (5) below:

- (4) Context: *Person X is curious if her colleague, Person Y, will attend an event.*
- a. Interrog: A = Privileged Access
 Cha kanhe wan-e lā?
 2.SG.INFM tomorrow go.INFM-NPST.EGO Q
 ‘Will you go tomorrow?’
- b. Decl: S = Privileged Access
 Ji wan-e
 1.SG go.INFM-NPST.EGO
 ‘I will go.’
- (5) Context: *Person X asks Person Y if their colleague, Person Z, will attend a party.*
- a. Interrog: A ≠ Privileged Access
 Wa kanhe wan-i lā?
 3.SG.INFM tomorrow go.INFM-NPST.EGO Q
 ‘Will she go tomorrow?’
- b. Decl: S ≠ Privileged Access
 Wa wan-i
 3.SG.INFM go.INFM-NPST.EGO
 ‘She will go.’

(Hargreaves 2005:9)

The pragmatic properties of (4) and (5) turn out to be the same as those of (2) and (3) (see Table 4). An informal second-person pronoun in (4) and an informal third-person pronoun in (5) both agree with an informal verb, which inflects egophorically for the first and second-person subjects in (4) and non-egophorically for third-person subjects in (5), both of which give plain informal registers.

Table 4: Verb inflection based on pragmatic properties for (4) and (5).

SOCIAL EQUALITY	SOCIAL DISTANCE	REGISTER			
		Nuanced Informal	Plain informal	Plain formal	Nuanced Formal
(4)	S=A		EGO		
	S>A		EGO		
(5)	S and A=R		NON-EGO		
	S and A>R		NON-EGO		

‘Has he arrived?’

- b. Decl: S ≠ Privileged Access

Wa thyan-a

3.SG.INFM arrive.INFM-PST.NONEGO

‘He has arrived.’ (Source: personal knowledge, verified)

Further, non-egophoricity in *thyan-* in the non-past context manifests with the *-i* suffix, as seen for non-past third-person clauses featuring *wan-* in (5). A non-past interaction comprising first-person and second-person clauses with *thyan-* features in (8) and another interaction with third-person clauses features in (9):

- (8) Context: *Person X wants to ensure that Person Y will arrive on time.*

- a. Interrog: A ≠ Privileged Access

Cha ilay thyan-i lā?

2.SG.INFM on.time arrive.INFM-NPST.NONEGO Q

‘Will you arrive on time?’

- b. Decl: S ≠ Privileged Access

Ji ilay thyan-i

1.SG on.time arrive.INFM-NPST.NONEGO

‘I will arrive on time.’ (Source: personal knowledge, verified)

- (9) Context: *Person X wants to know if Person Y will arrive on time. He asks Person Z.*

- a. Interrog: A ≠ Privileged Access

Wa ilay thyan-i lā?

3.SG.INFM on.time arrive.INFM-NPST.NONEGO Q

‘Will he arrive on time?’

- b. Decl: S ≠ Privileged Access

Wa ilay thyan-i

3.SG on.time arrive.INFM-NPST.NONEGO

‘He will arrive on time.’ (Source: personal knowledge, verified)

The pragmatic properties of both past and non-past interactions featuring *thyan-* (arrive) are summarized in Table 5. These interactions can be used between social equals with neutral social distance, such as colleagues or contemporaries, or between non-equals with neutral social distance where the speaker is superior to the addressee, such as between a senior and a junior colleague. The morpho-syntactic properties include the following sequence: informal second and third-per-

son pronouns *cha* and *wa* agree with the informal root verb *thyan-*, which inflects non-egophorically, given the non-volitionality of the verb. This sequence features in past and non-past interactions, as does the plain informal register.

Table 5: Verb inflection based on pragmatic properties for (6) – (9).

SOCIAL EQUALITY	SOCIAL DISTANCE	REGISTER			
		Nuanced Informal	Plain informal	Plain formal	Nuanced Formal
(6)	S=A	Neutral	NON-EGO		
	S>A		NON-EGO		
(7)	S=A=R	Neutral	NON-EGO		
	S and A>R		NON-EGO		
(8)	S=A	Neutral	NON-EGO		
	S>A		NON-EGO		
(9)	S=A=R	Neutral	NON-EGO		
	S and A>R		NON-EGO		

Thus, we see that pragmatic properties such as register, social equality, and social distance between speech act participants are reflected in the parts of speech and morpho-syntax of the clause. These properties were previously not acknowledged in discussions on egophoricity, which mainly observed verb inflections as indicative of semantic properties such as (non) volition, and evidential properties such as the presence or absence of privileged access.

There is yet another verb inflection included in the egophoricity paradigm of Kathmandu Newā, documented as the ‘imperfective disjunct’ which will be discussed in a forthcoming paper due to the complexity of its analysis that is beyond the scope of this paper.

9.5 The Ø EGO marking & nuanced informality in Kathmandu Newā

In this section, I examine the pragmatics and morpho-syntactic aspects of informal interactions in Kathmandu Newā, a central point of interest of this chapter as their pragmatic properties shed light on the role of an additional factor in egophoricity, namely formality.

9.5.1 The Ø EGO marking and nuanced informality in volitional verbs

The distinction in verb inflections, represented as a paradigm in Table 3, has characterized egophoricity as a binary feature, with a positive value (egophoric marking) and a negative value (non-egophoric marking). Also, interactions featuring the canonical pattern of egophoricity listed thus far follow the ‘rule of anticipation’, where the verb marking in a question anticipates the same marking to be used in the response (Garrett and Bateman 2007:88). As a native speaker immersed in the speaker community for much of my life, though, several interactions come to mind where this is not necessarily the case. Certain interactions in Kathmandu Newā can have an addressee respond with an egophoric inflection, for example, to a question that does not contain the expected egophoric marking. The speaker in such cases can use a verb marking unlike either the egophoric *-ā* or the non-egophoric *-a*:

- (10) Context: *A landlord thinks it is unlikely that his servant would attend a certain event. He asks his servant anyway:*
- a. Interrog: A Ø Privileged Access
 Cha mhigaḥ ana wā: lā?
 2.SG.INFM yesterday there go. INFM-ØEGO Q
 ‘Did you go there yesterday?’ (Informal, condescending)
- b. Decl: S = Privileged Access
 Ji wan-ā
 1.SG go. INFM-PST.EGO
 ‘I did.’ (Source: personal knowledge, verified)

Table 6: Verb inflection based on pragmatic properties for (10).

SOCIAL EQUALITY	SOCIAL DISTANCE	REGISTER			
		Nuanced Informal	Plain informal	Plain formal	Nuanced Formal
(10) S>A	Distant	Ø EGO Condescending			

Here, the landlord does not use the expected egophoric marking *-ā* on the volitional verb *wan-* (go), even if using an interrogative clause type that seeks privileged access to knowledge held by the addressee. The verb marking is not conventionally non-egophoric (*-a*) either, as this interaction meets condition (ii) from Section 9.1, i.e., the willed involvement of at least one speech-act participant in the event, unchar-

acteristic in non-egophoric clauses. The verb marking is thus neither egophoric nor non-egophoric – it does not satisfy the conditions for either case, nor does it exhibit their morphology.

What stands out in (10) is that, unlike canonical settings where an addressee is assumed to have privileged access to provide an answer, the addressee here is denied the same. I indicate this denial of privileged access to the addressee in the top line of the example as ‘Interrog: A Ø Privileged Access’, and intuit it to arise from pragmatic properties stemming from an asymmetric power relation between the speaker, a landlord, and the addressee, a servant. The landlord does not deign the servant as an addressee with privileged access – such interpersonal dynamics manifest pragmatically with a condescending register, and associated properties of social inequality (S>A) and social distance. Such pragmatic force nullifies the phenomenon of egophoricity in the interaction. The verb marking – neither egophoric nor non-egophoric – represents the absence of egophoricity and is thus encoded with an Ø egophoric marking.

It is worth noting that it is also felicitous for the landlord to employ the egophoric marking when asking the servant a question, similar to the morphological properties of the canonical examples in Table 1:

- (11) Context: *A landlord thinks it is unlikely that his servant would attend a certain event. He asks his servant anyway:*
- a. Interrog: A = Privileged Access
 Cha mhigaḥ ana wan-ā lā?
 2.SG.INFM yesterday there go. INFM- PST.EGO Q
 ‘Did you go there yesterday?’ (Informal, plain)
 - b. Decl: S = Privileged Access
 Ji wan-ā
 1.SG go. INFM-PST.EGO
 ‘I did.’ (Source: personal knowledge, verified)

The difference between (10) and (11) includes a difference in register: where (10) with a Ø egophoric marking has a nuanced informal (condescending register), (11) with the egophoric marking bears a plain informal register. The pragmatic properties of social equality and distance between (10) and (11) would be the same, as the speech act participants and their social relationship are the same. Examples (10) and (11) as a minimal pair thus shows us that in informal interactions between a pair of speech act participants where the speaker is superior to the addressee (S>A), a change in verb marking – from the Ø egophoric or the absence of egophoricity, to the egophoric or the presence of egophoricity – indicates a change in register, i.e., a change in the degree of informality.

The Ø egophoric marking is also observed in contexts where the speaker and addressee are equals, and in close relation. In the case of childhood friends, for example, the inflection is used but with a slightly different register:

(12) Context: *Person X knows his childhood friend Person Y would typically not attend a certain event. He asks him casually:*

a. Interrog: A Ø Privileged Access

Cha mhigaḥ ana wā: lā?

2.SG.INFM yesterday there go. INFM-ØEGO Q

‘Did you go there yesterday?’ (Informal, condescending)

b. Decl: S = Privileged Access

Ji wan-ā

1.SG go. INFM-PST.EGO

‘I did.’

(Source: personal knowledge, verified)

Here again, the speaker does not use the expected egophoric marking *-ā* when asking a question to a childhood friend. The marking is not conventionally non-egophoric (*-a*) either, as the addressee is intentionally involved in the event. The speaker instead employs what is also observed in (10a) – the Ø egophoric marking that signals the nullification of privileged access held by the addressee. Example (12), however, does not feature (10)’s register of condescension related to the use of Ø egophoric marking. Instead, the interaction bears a casual, informal register associated with the proximity between childhood friends, who are social equals. I intuit that due to the interpersonal dynamics between two childhood friends, the speaker here takes the liberty to assert upon the ‘territory of information’ (Kamio 1997) held by his friend, the addressee, with whom he is close enough to know the latter’s expected choice of action. This manifests as a nullification of the addressee’s privileged access, implying the speaker does not need to seek it, the speaker does not seek it, but asserts upon it. With this, we have another example of an interaction, in a different pragmatic context, featuring the Ø egophoric marking. The pragmatic properties of (12) are thus summarized in Table 7 below:

Table 7: Verb inflection based on pragmatic properties for (12).

SOCIAL EQUALITY	SOCIAL DISTANCE	REGISTER			
		Nuanced Informal	Plain informal	Plain formal	Nuanced Formal
(12) S=A	Proximate	Casual Ø EGO			

Finally, a third context where the Ø egophoric marker can be demonstrated is one where the speaker is superior to the addressee but shares a close relationship, such as that between a mother and child (13).

(13) Context: *X knows that her son Y attends school daily. She cuddles him and asks:*

- a. Interrog: A Ø Privileged Access
Cha mhigaḥ school wā: lā, putā?
2.SG.INFM yesterday school go.INFM-ØEGO Q dear?
'Did you go to school yesterday, dear?' (Informal, endearing)
- b. Decl: S = Privileged Access
Ji wanā
1.SG go.INFM-PST.EGO
'I did.' (Source: personal knowledge, verified)

Much like in (12), the speaker has proximate knowledge of the addressee's habits and routine and therefore uses the Ø egophoric marking to signal they do not need to seek privileged access for a question they already know the answer to. This produces an endearing register, with associated pragmatic properties such as proximity and social superiority of the speaker (Table 8).

Table 8: Verb inflections based on pragmatic properties for (13).

SOCIAL EQUALITY	SOCIAL DISTANCE	REGISTER			
		Nuanced Informal	Plain informal	Plain formal	Nuanced Formal
(13) S>A	Proximate	Endearment Ø EGO			

The Ø egophoric marking is thus observed in three different pragmatic contexts within informal interactions in Kathmandu Newā. In all of these contexts, we observe the register of interaction to be that of nuanced informality – a condescending nuance in (10), a casual nuance in (12), and an endearing sense of informality in (13). These deviate from the plain informal registers and other properties observed in the canonical example (2) that forms the baseline in terms of pragmatic and morpho-syntactic properties.

Note that interactions with the Ø egophoric marking do not follow the “rule of anticipation” (Garrett and Bateman 2007:88) whereby the use of a verb inflection in a second-person question anticipates the same inflection to be used by the addressee in their answer. We observe that the speaker in (10), (12), and (13) uses

the Ø egophoric marking while the addressee in all three examples uses the egophoric one, as they speak based on the authority they hold over their declarative utterance. The departure of these interactions from the rule of anticipation is consistent with observations of interactions in Tibetan (Garrett and Bateman 2007) and Cha'palaa (Floyd 2018) that also use the egophoric or 'ego-evidential' (Garrett 2001) marking.

9.5.2 The Ø EGO marking and nuanced informality in non-volitional verbs

The Ø egophoric marking also occurs in interactions that use non-volitional verbs. As seen in (14), the non-volitional *thyan-* (arrive) is felicitous with the Ø egophoric marking, and is used in a similar context as that of (10):

- (14) Context: *A landlord thinks it is unlikely that his servant would have reached his mansion on time. He asks anyway:*
- a. Interrog: A Ø Privileged Access
- | | | | | |
|-----------|-----------|---------|-------------------|-----|
| Cha | mhigaḥ | ilay | thyā: | lā? |
| 2.SG.INFM | yesterday | on time | arrive. INFM-ØEGO | Q |
- 'Did you arrive on time yesterday?' (Informal, condescending)
- b. Decl: S ≠ Privileged Access
- | | | | |
|------|-----------|---------|---------------------|
| Ji | mhigaḥ | ilay | thyan-a |
| 1.SG | yesterday | on time | arrive.INFM- NONEGO |
- 'I arrived on time.' (Source: personal knowledge, verified)

As discussed in Section 9.4.1, non-volitional verbs represent events that are not initiated by speech act participants. They are marked non-egophorically, as the lack of initiation in the propositional event leaves the speech act participants devoid of privileged access, for knowledge within the proposition is not 'self-borne' (Roque, Floyd and Norcliffe 2018). In non-volitional verbs such as *thyan-* (arrive), speech-act participants do not initiate the event of arriving at a place, but bear perceptual knowledge through their physical involvement. As such, the canonical examples (6)–(9) that use *thyan-* have speakers confer upon addressees the authority to answer their question through evidence sourced from such non-self-borne means, also described as 'direct evidence' in the literature on Lhasa Tibetan (Garrett 2001).

The presence of a Ø egophoric marking, however, signals the absence of even a perceptual source of evidence. If the interaction between landlord and servant in (10), which uses the volitional verb *wan-*, features the Ø egophoric marking to signal denial of privileged access, the interaction between the same speech-act par-

Table 10: Verb inflection based on pragmatic properties for (15).

SOCIAL EQUALITY	SOCIAL DISTANCE	REGISTER			
		Nuanced Informal	Plain informal	Plain formal	Nuanced Formal
(15) S=A	Proximate	Causal Ø EGO			

(16) Context: *X knows her son Y reached home on time yesterday. She cuddles him and asks anyway:*

- a. Interrog: A Ø Privileged Access

Cha mhigaḥ ilay thyā: lā puta?
 2.SG.INFM yesterday on time arrive. INFM-ØEGO Q dear?
 ‘Did you arrive on time yesterday, dear?’ (Informal, endearing)

- b. Decl: S ≠ Privileged Access

Ji ilay thyan-a
 1.SG on time arrive. INFM-NONEGO
 ‘I arrived on time.’ (Source: personal knowledge, verified)

Table 11: Verb inflection based on pragmatic properties for (16).

SOCIAL EQUALITY	SOCIAL DISTANCE	REGISTER			
		Nuanced Informal	Plain informal	Plain formal	Nuanced Formal
(16) S=A	Proximate	Causal Ø EGO			

In both (12) and (15), the speaker and addressee are social equals – childhood friends with proximate relations. Here, the use of Ø egophoric marking correlates with a casual informal register. In (13) and (16), the speaker and addressee have proximate relations, but the speaker is superior to the addressee. Here, the use of Ø egophoric marking correlates with an endearing register. The only difference between the interactions in these two pairs is that (12) and (13) employ the volitional *wan-* whereas (15) and (16) employ the non-volitional *thyan-*. This observation, along with the one made between (10) and (14) confirms that similar properties in the pragmatics may prevail despite differences in the semantic class of verbs in Kathmandu Newā, and that the Ø egophoric marking is consistent across different semantic classes of verbs.

We can now expect the \emptyset egophoric marking to hold across volitional and non-volitional verb classes of Kathmandu Newā, and not just the verbs of *wan-* and *thyan-* discussed above. As seen in Tables 12 and 13, the \emptyset egophoric marking is prevalent across the language in numerous verbs from both verb classes. As the pair of verbs *wan-* and *thyan-*, which end with an *-n* stem-final consonant, adopt a nasal phonological quality with the \emptyset egophoric marking, I have sub-categorized the list of additional verbs here according to their respective stem-final consonants to attest to the phonological form of their \emptyset egophoric inflection.

Table 12: EGO, NON-EGO, and \emptyset EGO inflections of volitional verbs with different stem-final consonants.

STEM-FINAL MORPHEME	VERB	EGO	NON-EGO	\emptyset EGO
<i>-n</i>	<i>Wan-</i> (go)	Wanā	Wana	Wā:
<i>-ay</i>	<i>Nay-</i> (eat)	Nayā	Nala	Na:
<i>-iy</i>	<i>Biy-</i> (give)	Biyā	Bila	Bī:
<i>-l</i>	<i>Tal-</i> (keep)	Tayā	Tala	Ta:
<i>-t</i>	<i>Sa:t-</i> (call)	Sa:tā	Sa:tala	Sa:tu:
<i>-k</i>	<i>Lāk-</i> (snatch)	Lākā	Lākala	Lāku:
<i>-p</i>	<i>Kop-</i> (assist)	Kopā	Kopala	Kopyu:

(verb list from Malla 1986:36–37)

Table 13: NON-EGO, and \emptyset EGO inflections of non-volitional verbs with different stem-final consonants.

STEM-FINAL MORPHEME	VERB	EGO	NON-EGO	\emptyset EGO
<i>-n</i>	<i>Thyan-</i> (arrive)	-	Thyana	Thyā:
	<i>Luman-</i> (remember)	-	Lumana	Lumā:
<i>-y</i>	<i>Siy-</i> (know)	-	Sila	Syū:
	<i>Thuy-</i> (understand)	-	Thula	Thū:
<i>-l</i>	<i>Cāl-</i> (feel external stimuli)	-	Cāla	Cā:

(source: personal knowledge, verified)

In this section, I have demonstrated the pragmatic correlates of the \emptyset egophoric marking in informal interactions in Kathmandu Newā. I observe that the \emptyset egophoric marking has similar pragmatic effects in interactions that use volitional as well as non-volitional verbs. I also observe a correspondence of egophoric and non-egophoric markings with a plain informal register and the \emptyset egophoric marking with nuanced informal registers, which allows the prediction of a similar pattern within formal interactions in the language. In the next section, I will examine if this prediction holds, using constructed interactions in formal contexts in Kathmandu Newā.

9.6 Egophoricity and formality in Kathmandu Newā

Formality in Kathmandu Newā is typically marked by parts of speech with formal semantics and morpho-syntactic correlates. Thus far in this chapter, we have encountered pronouns and a selective pair of verbs used in informal contexts, with informal semantics denoted by the gloss ‘INFM’ in Sections 9.4 and 9.5. When used in formal contexts, these very parts of speech acquire formal semantics specific to the speech act participants engaged in interaction. The informal second-person pronoun *cha* then changes into the formal *chi*; the informal third-person pronoun *wa* changes into the formal *waykah*; and the informal root verbs *wan-* (go) and *thyan-* (arrive) change into their common formal counterpart *jha-*(go/arrive).

9.6.1 EGO marking and formality in volitional verbs

Using this new set of formal pronouns and verbs in this section, I will examine interactions with formal registers, including the plain formal register, and various nuanced formal registers in Kathmandu Newā for corresponding properties of social equality, distance among speech act participants, and how these pragmatic properties interact with egophoricity. Similar to observations in Section 9.5, I will check for patterns of agreement among parts of speech within the clause, and how the volitional *wan-* (go) and the non-volitional *thyan-* (arrive) manifest morpho-syntactically, in the respective pragmatic contexts. This dataset of interactions will further test the hypothesis on the relationship between egophoricity and formality in Kathmandu Newā.

The first set of examples for the formal domain comprises an exchange between socially equal acquaintances in (17) and another between social equals referring to a third-person, a common acquaintance in (18).

- (17) Context: *Person X asks acquaintance Person Y if he went to an event.*
- a. Interrog: A = Privileged Access
 Chi mhigaḥ ana jhāy-ā lā?
 2.SG.INFM yesterday there go.FRML-PST.EGO Q
 ‘Did you go there yesterday?’ (plain formal)
 - b. Decl: S = Privileged Access
 Ji wan-ā
 1.SG go.INFM-PST.NONEGO
 ‘I did.’ (Source: personal knowledge, verified)

- (18) Context: *Person X asks Person Y if Person Z went to an event.*
- a. Interrog: A ≠ Privileged Access
Waykaḥ ana jhāl-a lā?
3.SG.FRML there go.FRML-PST.NONEGO Q
'Did he go there?' (Formal, plain)
- b. Decl: S ≠ Privileged Access
Waykaḥ ana jhāl-a
3.SG.FRML there go.INFM-PST.EGO
'He went there' (Source: personal knowledge, verified)

In (17), the speaker who addresses an acquaintance employs a formal second-person pronoun *chi*, which agrees with a formal root verb *jha-* (go), marked with an egophoric marker. This sequence correlates with a plain formal register and is associated with properties shown in Table 14 below. In (18), we observe a similar sequence for sentences referring to a third person. Here, the formal third-person pronoun *waykaḥ* agrees with the formal verb *jha-* (go), which is marked with the non-egophoric marker. This again correlates with a plain formal register and its associated pragmatic properties shown in Table 14:

Table 14: Verb inflection based on pragmatic properties for (17) and (18).

SOCIAL EQUALITY	SOCIAL DISTANCE	REGISTER			
		Nuanced Informal	Plain informal	Plain formal	Nuanced Formal
(17) S=A	Distant			EGO	
(18) S=A=R	Distant			NON-EGO	

Compared to example (2), repeated below for convenience, (17) has formal semantics in its pronoun and root verb, and greater social distance between socially equal speech act participants, as would be expected in a formal interaction. The same differences hold between the informal third-person interaction in (3) and the formal third-person interaction in (18).

- (2') Context: *Person X misses a party and asks his colleague, Person Y, if she went.*
- a. Interrog: A = Privileged Access
Cha ana wan-ā lā?
2.SG.INFM there go.INFM-PST.EGO Q
'Did you go there?' (plain informal)

The pragmatic and morpho-syntactic properties associated with the augmented formal register in these interactions are presented in Table 15 below:

Table 15: Verb inflection based on pragmatic properties for (19) and (20).

SOCIAL EQUALITY	SOCIAL DISTANCE	REGISTER			
		Nuanced Informal	Plain informal	Plain formal	Nuanced Formal
(19) S<A	Distant				EGO + EGO (Aux)
(20) S and A<R	Distant				EGO + NON-EGO (Aux)

This sub-section has briefly demonstrated the pragmatic and morpho-syntactic properties of interactions with plain formal and augmented formal registers in Kathmandu Newā, focusing on the semantics of formal parts of speech, the egophoric marking in plain formal second-person interrogatives, non-egophoric marking in plain formal third-person interrogatives, and the deferential auxiliary used to augment formality. The next sub-section will examine further types of nuanced formal registers that employ the Ø egophoric marking.

9.6.2 The Ø EGO marking and nuanced formality in volitional verbs

In what follows, I show how the Ø egophoric marking can affect further types of nuanced formal registers, which, as compared to the baseline example of the plain formal register in (17), note a reduction of formality to produce semi-formal registers. Consider first the example (21) where the Ø egophoric marking used on a formal root verb *jha-*, combines with the formal pronoun *chi* in an interaction between acquaintances:

- (21) Context: *Person X wants to know if acquaintance Person Y attended an event.*
- a. Interrog: A = Privileged Access
- | | | | | |
|------------------------------|-----------|-------|-------------------|---------------|
| Chi | mhigaḥ | ana | jhā: | lā? |
| 2.SG.INFM | yesterday | there | go.FRML-PST. ØEGO | Q |
| 'Did you go there yesterday? | | | | (semi-formal) |

- b. Decl: S = Privileged Access

Ji wan-ā

1.SG go.INFM-PST.NONEGO

'I did.'

(Source: personal knowledge, verified)

When minimally paired with (17) from Section 9.6.1, the only difference noted in example (21) is a change from the egophoric verb marking to an Ø egophoric verb marking. This morphological change denotes a reduction of formality from a plain formal register in (17) to a semi-formal one in (21). As formality and social distance positively correlate (see comparison between baseline (17) and augmented formal (19)), a reduction of formality here would imply a reduction of social distance between speech act participants.

There are further ways of being semi-formal when speaking in Kathmandu Newā; the next two examples will exhibit these. Example (22) features a different pair of speech act participants – childhood friends who have grown old and are now their respective individuals:

(22) Context: *X and Y are elderly gentlemen who have known each other since childhood.*

- a. Interrog: A = Privileged Access

Chi mhigaḥ ana wā: lā?

2.SG.FRML yesterday there go. INFM-ØEGO Q

'Did you go there yesterday?

(semi-formal)

- b. Decl: S = Privileged Access

Ji ana wan-ā

1.SG there go.INFM-PST.EGO

'I went there'

(Source: personal knowledge, verified)

When minimally paired with (21), we see just one morphological difference: (22) uses the informal root verb *wan-*, compared to the formal root verb *jha-* in (21). The informal semantics of the verb in (22), combined with its Ø egophoric marking and a formal pronoun *chi* together serve a unique interpersonal dynamic: the speaker here respects the addressee's personhood formed during their adult life, yet acknowledges their closeness and familiarity as childhood friends. This element of closeness and familiarity is expectedly absent between the acquaintances in (21). Example (22) thus features a semi-formal register that is a shade different from the one in (21).

When minimally paired with (12) from Section 9.5.1, which also features childhood friends as speech act participants, we see that in both cases, the Ø egophoric marking reduces the degree of formality from their respective baseline examples:

Example (12) takes on a casual informal register as compared to the plain informal register in baseline example (2). Example (22), which features a \emptyset egophoric marking on an informal root verb *wan-*, takes on a semi-formal register as compared to the egophoric marking on a formal root verb *jha-* in baseline example (17). In both cases, the \emptyset egophoric marking signals the speaker's familiarity with his childhood friend, the addressee, well enough to access their 'territory of information' (Kamio 1997).

The difference between (12) and (22), on the other hand, is that in (12) the speaker uses the \emptyset egophoric marking to signal a lack of need to seek privileged access. The speaker, in effect, does not grant the addressee their mental autonomy. In (22), though, the formal pronoun *chi* gives the addressee respect and therefore, the interaction retains the speaker's mental autonomy despite the \emptyset egophoric marking on the verb. This minimal pair thus reveals the sole effect of formality – here in the form of the formal semantics of the pronoun *chi* – in preserving the mental autonomy of the addressee.

A third example of a semi-formal register in Kathmandu Newā features a married couple, with husband and wife born in the 1950s, as speech act participants. In Newā society, couples wedded in an arranged marriage, and from this generation, tend to share gendered dynamics where wives address their husbands respectfully. In (23), a wife addresses her husband using the formal pronoun *chi* and combines it with the informal root verb for 'go', *wan-*, to signal a respectful but proximate social relationship. Additionally, the verb in (23) inflects egophorically as the wife regards her husband as a bearer of privileged access.

- (23) Context: *Person X wants to ask her husband if he attended an event*
- a. Interrog: A = Privileged Access
 Chi mhigaḥ ana wan-ā lā?
 2.SG.FRML yesterday there go.-PST.EGO Q
 'Did you go there yesterday? (semi-formal)
- b. Decl: S = Privileged Access
 Ji ana wan-ā
 1.SG there go.INFM-PST.EGO
 'I went there' (Source: personal knowledge, verified)

The semi-formality in (23) is distinguished from the semi-formal interactions in (21) and (22) by the informal root verb that inflects egophorically. When minimally paired with (22), the only difference is seen in the verb marking – the \emptyset egophoric marking in (22) gives a more casual tone of semi-formality, whereas the egophoric marker in (23) changes the register, giving it a more respectful tone. The semi-formal register in (23) is therefore a shade more formal than the one in (22), making

this yet another minimal pair that culls out the trait of the egophoric marking as being associated with formality. The pragmatic and morpho-syntactic properties associated with the semi-formal registers in (21), (22), and (23) are laid out in Table 16 below:

Table 16: Verb inflection based on pragmatic properties for semi-formal registers.

SOCIAL EQUALITY	SOCIAL DISTANCE	REGISTER			
		Nuanced Informal	Plain informal	Plain formal	Nuanced Formal
(21)	S=A	Distant			ØEGO (formal verb)
(22)	S=A	Neutral			ØEGO (informal verb)
(23)	S<A	Proximate			EGO (informal verb)

This sub-section has covered a set of examples that demonstrate the role of the Ø egophoric marking in affecting different nuances of semi-formality in Kathmandu Newā. How the Ø egophoric marking affects nuanced formal interactions, however, is different from its effect on nuanced informal interactions discussed in Section 9.5. In the informal domain, the Ø egophoric results in a nullification of privileged access, denying the addressee their mental autonomy. In the formal domain, though, the effect is mainly that of reduced formality and not a denial of the addressee's mental autonomy.² The consistent use of the formal pronoun *chi*, alongside the Ø egophoric marking in the verb, ascribes respect and mental autonomy. This alludes to Brown and Levinson's classic theory on politeness, where speakers employ politeness strategies to mitigate a face-threatening act (Brown and Levinson 1987). In Kathmandu Newā, the Ø egophoric marking, as demonstrated in Section 9.5, affects the face-threatening act of denying the addressee their mental autonomy. Conversely, using a formal pronoun, as seen in Section 9.6.2, mitigates the threat by attributing to the addressee a state of mental autonomy, despite the presence of a morphological category that in informal contexts threatens face.

This section has also documented the effect of the egophoric marking on augmenting formality in the language. This observation, along with observations on the role of the Ø egophoric in manipulating formality, crucially highlights a strong correlation between egophoricity and formality.

The next sub-section looks at nuanced formality in non-volitional verbs. As I have observed in Section 9.5.2 that similar pragmatic properties prevail despite

² A detailed examination of the role of formality in ascribing mental autonomy is beyond the scope of this paper and will be conducted in forthcoming work.

differences in the semantic class of verbs in Kathmandu Newā, I will do away with listing out all examples of nuanced formality for the non-volitional verb *thyan-* (arrive), except for one that overtly highlights the role of formality in triggering the egophoric inflection, and strengthens my stance on formality being affected by a strategy of ascribing mental autonomy to the addressee.

9.6.3 EGO marking and nuanced formality in non-volitional verbs

As discussed in Section 9.4.1, a lack of initiation in a non-volitional propositional event leaves speech act participants devoid of privileged access, therefore resulting in non-volitional verbs being marked with the non-egophoric marker. When used in the context of augmented formality, however, we see an additional element of a causative morpheme *-k*. The verb *thyan-* (arrive), combined with a causative *-k*, gains a causer subject argument, i.e. a subject who causes the event of arriving. When the action is intentionally caused, the subject associated with the non-volitional action acquires agency, which subsequently warrants the appearance of the egophoric marking.

(24) Context: *Person X asks her father-in-law if he arrived on time yesterday.*

a. Interrog: A = Privileged Access

Chi mhigaḥ ilay thyan-**kā**
 2.SG.FRML yesterday on time arrive-CAUS.PST.EGO
 diy-**ā** lā?
 be.AUX-PST.EGO Q

‘Did you (cause to) arrive on time yesterday? (augmented formal)

b. Decl: S ≠ Privileged Access

Ji ilay thyan-**a**
 1.SG on time arrive.INFM-PST.NONEGO

‘I arrived on time’ (Source: personal knowledge, verified)

Contrary to conventional behaviour of signalling perceptual evidence with a non-egophoric marking, the intention to augment formality in (25) triggers a causative egophoric marking on the non-volitional verb *thyan-*. This example demonstrates the relationship between egophoricity and formality very well – for a non-egophoric marking on the main verb, in contrast, would not be felicitous and neither would the informal pronoun *cha* when combined with the causative egophoric and auxiliary, as seen in the following minimal pairs:

- (25) Context: *Person X asks her father-in-law if he arrived on time yesterday.*

Interrog: A = Privileged Access

*Chi mhigaḥ ilay thyan-a diy-ā lā?
 2.SG.FRML yesterday on time arrive-PST.NONEGO be.AUX-PST.EGO Q
 ‘Did you arrive on time yesterday? (augmented formal)’

- (26) Context: *Person X asks her father-in-law if he arrived on time yesterday.*

Interrog: A = Privileged Access

*Cha mhigaḥ ilay thyan-kā diy-a lā?
 2.SG.INFM yesterday on time arrive-CAUS.PST.EGO be.AUX-PST.EGO Q
 ‘Did you arrive on time yesterday? (augmented formal)’

The unexpected egophoricity in (25), therefore, arises from conferring volition upon a superior addressee, even in a non-volitional context. This, again, would not be the case if the addressee were socially equal or inferior to the speaker. Therefore, addressees can be considered as holders of privileged access due to the superiority of their social status even in a non-volitional context. This testifies to the importance of agency and volition in the system of formality encoded in Kathmandu Newā. The pattern is seen in numerous non-volitional verbs across the language, with different stem-final consonants as documented in Table 17:

Table 17: Non-volitional verbs in NON-EGO, Ø EGO, and EGO inflection patterns.

STEM-FINAL MORPHEME	VERB	NON-EGO (PLAIN FORMALITY)	Ø EGO (REDUCED FORMALITY)	EGO + AUX (AUGMENTED FORMALITY)
-n	<i>Thyan-</i> (arrive)	Thyana	Thyā:	Thyankā diyā
	<i>Tan-</i> (misplace)	Tana	Ta:	Tankā diyā
	<i>Mhan-</i> (dream)	Mhana	Mha:	Mhankā diyā
	<i>Luman-</i> (remember)	Lumana	Luman:	Lumankā diyā
-y	<i>Thuy-</i> (understand)	Thula	Thu:	Thuykā diyā
	<i>Siy-</i> (know)	Sila	Syu:	Siykā diyā
-l	<i>Cāl-</i> (feel emotion)	Cāla	Cā:	Cāyekā diyā

(source: personal knowledge, verified)

We thus get a stronger testament to a relation between egophoricity and formality through example (25) that ascribes privileged access to the addressee even in a conventionally unexpected context.

9.7 Discussion

The literature on egophoricity in Kathmandu Newā has long established a binary system that features the egophoric marker as a signifier of privileged access and the non-egophoric marker as a signifier of non-privileged access. These markers have been typically examined in first-person declaratives, second-person interrogatives, and third-person clauses of both types. A list of three conditions – epistemic authority, involvement and access to the speech-act participant's ontological subjectivity (referred to as 'privileged access') – has explained the appearance of this grammatical category in Kathmandu Newā. As these conditions and the concepts within have overlapped strongly with the definition of the grammatical category of evidentiality, the literature always struggled to describe egophoricity as a separate entity.

In this chapter I propose formality in interactional language to be a key differentiator – a variable that interacts independently with egophoricity, from the grammatical category's evidence-sourcing traits. I argue for this position by first validating the existence of a third member within the egophoricity paradigm of Kathmandu Newā – one that morphologically signals the absence of egophoricity and indicates a complete nullification of privileged access. The \emptyset egophoric marking, as I call it, semantically correlates with an imperfective interpretation in the context of a certain class of stative verbs and in contexts where otherwise (non) egophoric marking would be expected, it correlates with a manipulation in privileged access, formality and social distance.

This chapter makes several observations on the behaviour of the \emptyset egophoric marking, and conversely the egophoric marking, which shed light on the relationship between egophoricity and formality. A first minimal pair between interactions in (11) and (10) shows us that controlling for all other properties of an interaction, a change from the egophoric marking to the \emptyset egophoric marking on the verb accounts for a change in register – from a plain informal register in the former to a nuanced informal register in the latter.

Further, minimal pairing of example (10), that employs the \emptyset egophoric marking on a volitional verb in an informal context, with (14), that does the same but on a non-volitional verb, shows that the effect of the \emptyset egophoric marking is the same across volitional and non-volitional contexts. This is an important observation as it suggests that the \emptyset egophoric marking affects register, thus (in)formality, independently of the volitionality of the propositional event. There is evidence, thus, that formality interacts with egophoricity independently of the volitionality and non-volitionality of verbs.

This further indicates the distinction of the \emptyset egophoric marking from the egophoric and non-egophoric markings as the latter two signal privileged versus non-privileged access, which the \emptyset egophoric marking interacts independently with refer to Sections 9.5.1 and 9.5.2. Observations in Section 9.5.2 that distinguish the non-egophoric marking from the \emptyset egophoric, further supports this view. We thus come to understand egophoricity as a bivalent feature where both the positive (egophoric) and the negative (non-egophoric) values are meaningful in contrast to the zero value of the \emptyset egophoric marking.

Further observations made in this chapter include the difference in the effect of the \emptyset egophoric marking in examples with informal registers versus those with formal registers. In the former category, the \emptyset egophoric marking signals the lack of need for the speaker to gain privileged access to the addressee's mind, or in other contexts, the marking signals the speaker to disregard the addressee as a holder of privileged access. When controlled for formality, on the other hand, the same marking is only effective in reducing the degree of formality in interactions, and not as effective in nullifying privileged access. As such, this observation reinforces the idea that properties of the \emptyset egophoric marking are independent of the evidential aspects of the grammar of Kathmandu Newā, and that social status and formality towards the addressee are critical variables that play a role in retaining their mental autonomy.

Finally, several observations in this chapter attest to the importance of formality and the social status of the addressee, in conversely, triggering egophoricity. A stand-out example is seen in (24) where a non-volitional verb *thyan-* (arrive) is observed to carry a causative egophoric marking, accompanied by an egophoric auxiliary verb when addressing a person of superior social status. This unexpected use of egophoricity in a non-volitional context testifies to the role of egophoricity in ascribing privileged access to a socially superior addressee, even in a non-volitional context. When considered alongside observations of the \emptyset egophoric marking in nullifying mental autonomy, one is bound to infer egophoricity as a politeness strategy to mitigate the face-threatening act in Kathmandu Newā of having one's mental autonomy nullified.

9.8 Conclusion and future research

Re-examining the egophoricity paradigm of Kathmandu Newā, by including the \emptyset egophoric marking as discussed, expands the discourse on epistemicity to include the role of formality. This chapter shows that understanding the role of formality, observed to exist independently of epistemic aspects such as privileged access, can

enable a clearer distinction between the description of egophoricity and evidentiality as grammatical categories. As various registers of nuanced (in)formality have been observed to be caused by agreements between the (in)formal parts of speech and egophoricity or Ø egophoricity in verbs, without heeding the expected patterns for presence, absence or nullification of privileged access, formality is seen to interact with egophoricity independently. This observation is also attested for when the role of egophoricity as a politeness strategy to uphold the mental autonomy of the addressee is made clear.

With the above points as key takeaways from this chapter, future research that examines the syntax of egophoricity and formality in Kathmandu Newā would be desirable to obtain a structural understanding of the interaction between the two variables. Research on patterns of evidentials and the interaction between evidentials and other parts of speech would shed further light on the topics as well.

List of abbreviations

1.SG	First-person singular
2.SG	Second-person singular
3.SG	Third-person singular
PST	Past
NPST	Non-past
EGO	Egophoric
NONEGO	Non-egophoric
Ø EGO	Null-egophoric
Q	Questioner
ERG	Ergative
COMP	Complementiser
INFM	Informal
FRML	Formal
AUX	Auxiliary
CAUS	Causative

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Raúl Bendezú-Araujo and Karolina Grzech

10 From source of information to speaker commitments: a reanalysis of Quechuan evidentials

Abstract: Quechuan languages are known for having a (variable) number of enclitics traditionally classified as markers of evidentiality. However, recent research shows that their functions go beyond the marking of the source of information, or may not relate to it at all. This chapter focuses on the enclitic =*mi*, attested throughout the Quechuan language family, and traditionally analysed as a direct evidential. We analyse the cognates of the marker in Upper Napo Kichwa and Conchucos Quechua, where it has been analysed as a marker of epistemic authority and assertional force, respectively. Previous studies acknowledge that =*mi* plays a central role in the interpersonal negotiation of knowledge, but do not satisfactorily explain speakers' motivations for using the enclitic. In this chapter, we propose that the occurrences of =*mi* in Upper Napo Kichwa and Conchucos Quechua can be explained by analysing the marker as a device for strengthening speaker commitments. We describe the parallels in the use of =*mi* in Upper Napo Kichwa and Conchucos Quechua, and we argue that the commitment-based analysis allows for placing intersubjectivity at the core of its meaning. We also postulate that a commitment-based account opens interesting new avenues of research into the cognates of =*mi* across Quechuan languages, and allows for a systematic incorporation of contextual and cultural factors into the analysis of this and other evidential/epistemic markers attested in Quechuan languages.

Keywords: commitment, evidentiality, intersubjectivity, Quechua, semantics

Acknowledgments: We would like to thank the external and internal reviewers for their insightful comments on the earlier versions of the paper. We are also grateful to Anna Kocher for her time and comments.

Raúl Bendezú-Araujo would like to thank the *Deutsche Forschungsgemeinschaft* (DFG, project number 274614727) for funding the research that made possible the collection of the Conchucos Quechua data used in this paper.

Karolina Grzech would like to thank ELDP (grant numbers IGS0166 and IPF0301) and the Swedish Research Council (*Vetenskapsrådet*, project number 2020-01581) for funding which enabled the development of the thinking presented in this paper.

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10.1 Introduction

This paper proposes that evidential markers in Quechuan languages can be analysed as strengthening the public commitments of speech act participants (cf. Gunlogson 2008; Geurts 2019; Krifka 2019, 2023). This account, based on analyses of two geographically and genetically distant Quechuan varieties, allows for a more systematic explanation of speakers' motivations for using *=mi*, and provides a framework for accounting for the intersubjective semantics of the marker.

The issues concerning the communicative motivations for using Quechuan evidentials have to date not been analysed in detail. Descriptive literature on Quechuan has prioritised the analyses of the markers' meaning and functions, dedicating less attention to the reasons for their occurrence. In the typological literature, this issue has been overlooked completely, most likely due to the fact that Quechuan has come to be known as a family of 'languages with obligatory evidentials' (Aikhenvald 2004:12), in spite of data from across the family showing that Quechuan evidential marking is not obligatory for the grammaticality of utterances. In sum, while the occurrence of Quechuan evidentials is highly context-dependent, the speakers' interactional motivations for using those markers are still poorly understood. The main aim of the present chapter is to contribute to bridging this knowledge gap.

The discussion in the following sections is based on the analyses of the enclitic *=mi* in two Quechuan languages: Upper Napo Kichwa (ISO 693-3: quw; henceforth UNK), spoken in the Amazonian lowlands of Ecuador, and Conchucos Quechua (ISO 693-3: qxo; henceforth ConQ), spoken on the eastern slopes of the Cordillera Blanca in central Peru.¹ These languages belong to two distinct branches of the family, spoken across the Andean region by approximately 8 million speakers (Cerrón-Palomino 2003). ConQ belongs to the Quechuan I branch spoken in central Peru, while UNK belongs to the Quechua II branch spoken in Colombia, Ecuador, northern and southern Peru, Bolivia, Chile and Argentina (Torero 1964, cf. also Blum et al. 2023). Typologically, Quechuan languages are agglutinative, exclusively suffixing and exhibit a flexible SOV order. They also have a relatively large number of discourse-related enclitics, including a subset of evidential markers.

Most Quechuan languages exhibit a tripartite division of their evidential systems, distinguishing between markers of direct/first-hand evidence, reportative/hearsay evidence and conjectural/inferential evidence, as shown in example (1).

¹ This language is also called South Conchucos Quechua in the literature (see Hintz and Hintz 2017, for example).

(1) **Cuzco Quechua evidential system**

- a. *Para-sha-n=mi*
rain-PROG-3=**MI**
p= ‘It is raining.’
EV= speaker sees that *p*
- b. *Para-sha-n=si*
rain-PROG-3=**SI**
p= ‘It is raining.’
EV= speaker was told that *p*
- c. *Para-sha-n=chá*
rain-PROG-3=**CHÁ**
p= ‘It is raining.’
EV= speaker conjectures that *p*

(adapted from Faller 2002:122)

As mentioned above, this chapter focuses on the enclitic =*mi*. The most extended analysis of =*mi* treats it as a direct evidential, i.e. as a marker of a first-hand source of information, (Faller 2002 for Cuzco Quechua; Weber 1989 for Huanuco Quechua; Shimelman 2017 for Yauyos Quechua a.o.). However, already early analyses of the enclitic emphasised other aspects of its meaning, e.g. Adelaar’s (1977) analysis of Tarma Quechua describes the marker as ‘validational’. More recent research, focusing on natural and/or naturalistic speech data, recovers some of this early focus on non-evidential semantics, as it shows that the functions of =*mi* in the different varieties cannot be accounted for by the notion of evidentiality alone. This is shown in the work of Howard (2014) on Huamalíes Quechua, Nuckolls (2014) on Pastaza Quichua, Grzech (2016a, 2016b, 2020a, 2020b) on UNK, Hintz and Hintz (2017) and Bendezú-Araujo (2021, 2023a, 2023b) on ConQ, where =*mi* is analysed as marking speaker perspective and/or epistemic authority, or as a marker increasing the force of the assertion (see Section 10.2). Another substantial body of work analyses =*mi* as a focus marker (Muysken 1995 and Sánchez 2010 for Cuzco Quechua; Muntendam 2009 for Bolivian and Ecuadorian Quechua), but these analyses also do not satisfactorily account for the enclitic’s distribution in discourse (we come back to this issue below). Furthermore, the evidential and focus-related aspects of the enclitic’s meaning and distribution are rarely analysed jointly (see Faller 2019 and Grzech 2016a). Consequently, the understanding of the possible relations between these two aspects of the marker’s meaning and use remain underdeveloped.

In the remainder of this paper, we propose that the distribution of =*mi* in discourse can be explained if we relate the marker’s meaning to the notion of speaker commitment. To instantiate this analysis, we will first briefly account for how =*mi* has been analysed in Cuzco Quechua, UNK and ConQ (Section 10.2), so as to give

the readers the background information required for understanding the need for expanding those accounts. In Section 10.3, we introduce the notion of commitment and develop a preliminary commitment-based account of the data from UNK and ConQ. Finally, Section 10.4 presents the conclusions and implications of our proposal.

10.2 Previous accounts of *=mi* in three Quechuan languages

In this section, we briefly introduce three analyses of *=mi* that have been proposed for different Quechuan languages. We begin with the most well-known account, namely the analysis of *=mi* in Cuzco Quechua (Faller 2002), and contrast it with the analyses of its cognates in Upper Napo Kichwa and Conchucos Quechua. As we will see, despite the empirical, theoretical, and methodological differences, there are relevant points of convergence between these analyses.

10.2.1 Cuzco Quechua: *=mi* as marker of best possible grounds

As observed by Faller, the main difficulty in providing a satisfactory characterisation of *=mi* in Cuzco Quechua (Quechua II) stems from the fact that, while it can be used to indicate a first-hand source of evidence, as in (1a), it is also licensed in cases where no direct evidence is available to the speaker. That is, speakers can use *=mi* e.g. when talking about the inner emotional state of others (accessible only through reported or conjectural means) or their own encyclopaedic knowledge, as shown in (2).

(2) Cuzco Quechua *=mi* in contexts with no direct evidence

- a. *Inés=qa llakiku-n=mi*
Inés=TOP be.sad-3=**MI**
'Inés is sad'
- b. *Yunka-pi=n k'usillu-kuna=qa ka-n*
Rainforest-LOC=**MI** monkey-PL=TOP be-3
'In the rainforest, there are monkeys'
- c. *Africa-pi=mi elefante-kuna=qa ka-3*
Africa-LOC=**MI** elephant-PL=TOP be-3
'In Africa, there are elephants' (adapted from Faller 2002:126, 133, 52)

To account for the use of *=mi* in cases like these, Faller (2002) proposes a new evidential category: *best possible grounds* (*bpg*). According to this analysis, in Cuzco

Quechua *=mi* is licensed when the speaker has the best possible source of information for the type of event being described. This can mean different things depending on the type of information and the relationship between the information and the speaker. In (2a), *bpg* means having been told by Inés that she is sad. In (2b) the source is the speaker's own knowledge of the world as a member of the Quechua culture, and in (2c), general world knowledge acquired from a trusted source (a teacher/a textbook, a TV programme etc.), since the speaker has never been to Africa and could not have seen the elephants in person.

This analysis satisfactorily explains why *=mi* is not licensed in Cuzco Quechua in cases where the speaker has only partial direct evidence, as in example (3), where the enclitic *=chu hina* must be used instead (Faller 2002:174–176).

- (3) Context: the speaker sees something and it looks to the speaker like Mario is painting his house.

Mario=*qa* *wasi-n-ta=chu* *hina* *llimpi-sha-n*

Mario=TOP house-3-ACC=**CHU** **HINA** paint-PROG-3

'Mario is painting his house'

(Faller 2002:175)

For the type of event described here, the best possible grounds would be visual access. However, since the source of information is compromised – the speaker is standing too far away to properly see what is going on – it does not meet the requirements of *bpg*, and thus the use of *=mi* is not licensed. As we will show in the next section, Cuzco Quechua crucially differs from UNK and ConQ in this respect.

Faller's analysis of Cuzco Quechua *=mi* as a marker of *bpg* accounts for all permitted cases of the maker's use, but it only briefly addresses the question of why speakers choose to use it in the first place. Assertions where *=mi* would be felicitous, but is not used, are very common (as mentioned in Section 10.1, evidentials are not syntactically obligatory in Quechuan languages), and they "are usually interpreted in the same way as sentences with *-mi*" (Faller 2002:145). Therefore, an explanation is needed as to why speakers choose to use *=mi* when a plain assertion would have the same effect. Faller approaches this question by distinguishing between encoded and implicated meanings. She argues that while *bpg* is encoded in assertions with *=mi*, it is only implicated in plain assertions, and that speakers will choose to explicitly encode *bpg* when they anticipate a challenge from their interlocutors, indicating that such a challenge would fail because the speaker is able to defend the claim with strong evidence (Faller 2002:165).

10.2.2 Upper Napo Kichwa (UNK): *=mi* as a marker of epistemic authority

UNK is spoken in the Ecuadorian Amazon. Although it belongs to the Quechua II branch of the family, it is geographically distant from Cuzco Quechua and there is no evidence of contact between these groups of speakers.

Grzech (2016a) analyses the use of *=mi* in UNK and shows that its distributional properties make it incompatible with the *bpg* analysis. As mentioned above, in Cuzco Quechua *=mi* can only be used when the speaker has *bpg* for their claim, which rules out cases of partial direct evidence, such as that shown in example (3). This is not the case in UNK, where *=mi* can be used in such contexts, as shown in (4).

- (4) Context: The speaker hears footsteps outside, and was expecting his father to come home.

ñuka *yaya* *shamu-w=mi* *yachi-n*
 1SG father come-PROG=**MI** seem-3

‘It seems my father is coming.’

(Grzech 2016b:89)

In this case, the best source of information for knowing who is coming is to actually have (uncompromised) visual access. Furthermore, note that in (4) *=mi* is embedded under a modal epistemic: *yachi-n* ‘(it) seems’, a distribution that is not possible for *=mi* in Cuzco Quechua (Faller 2012, 2014). This shows that, despite a significant overlap in the distribution of *=mi* in Quechuan languages, its formal and functional properties can differ in important ways.

Based on a corpus of interactional data (Grzech 2020c), the UNK *=mi* can be analysed as a marker of speaker-exclusive epistemic authority and common ground management (Grzech 2016a, 2020a, 2020b, 2021). Epistemic authority is understood as the ‘relative right to know or claim’ (Stivers, Mondada and Steensig 2011:13), and is conceptually distinct from the source of evidence (evidentiality) or degree of certainty (epistemic modality). Claiming epistemic authority is most often felicitous in cases where the speaker has direct evidence and/or is certain of what they are saying, but this does not need to be the case. Such authority can also be derived from a particular social status (parent, preacher, shaman, teacher), as well as other epistemically-relevant sociocultural and situational factors.

The analysis of *=mi* in terms of epistemic authority helps explain why the enclitic can be used in contexts where the speaker is not certain of the veracity of what they are saying (as in (4) above). Moreover, in UNK, utterances marked with *=mi* do not need to be based on any particular type of evidence. The enclitic is also felicitous in contexts of guessing, inference, or conjecture. The latter is shown in (5), which comes from a retelling of the ‘Pear Story’ video (Chafe 1980):

- (5) *Chi rumi-ta payguna=**mi** chura-sha chapa-nushka chi-pi*
 DIST.DEM stone-ACC 3PL=**MI** put-COR wait-3PL.ANT DIST.DEM-LOC
 ‘They have put this stone. . .they’ve waited having put it there. . .’
 (el_25092014_03 048 cf. Grzech 2016a:347)

The speaker was retelling the film, but the described event was never shown in it, so the use of =*mi* here is based on conjecture. Furthermore, in UNK, both =*mi* and the ‘inferential’ enclitic =*cha* can be used to describe events based on the same type of evidence/access to events, which goes to show that they cannot be analysed as expressing different evidential values. This is shown in (6).

- (6) *Muyu-ra piti-w-n. . . ima. . . coco. . . mana, coco=**mi** ni-ni,*
 fruit-ACC cut-PROG-3 what coconut NEG coconut=**MI** say-1
*coco =**cha**. . .*
 coconut =**CHA**
 ‘He is cutting [harvesting] fruit... what... [It’s a] coconut...no, I said coconut, [is it a] coconut?’
 (el_24092014_03 003-5, cf. Grzech 2016a:359)

In (6), =*mi* and =*cha* are used to talk about the event which was accessed in the same way – the speaker saw it in the ‘Pear Story’ video. The speaker realises mid-utterance that the fruit he is talking about is not a coconut. He then reports his previous utterance, using =*mi* – not present in the original utterance – despite already knowing that he was mistaken. Immediately after that, still unsure of what the fruit is, the speaker uses =*cha*. Thus, the two markers contrast not in terms of the evidence on which the respective statements are based, but in terms of the speaker’s willingness to assume epistemic authority. When he uses =*mi*, he reports his immediately preceding statement, when he was still convinced the fruit is a coconut, but at the moment of uttering the =*cha*-marked statement, he does not want to assume authority over what he is saying.

As mentioned above, =*mi*, as well as other UNK epistemic clitics (for description of the paradigm, see Grzech 2016a, 2020a), is not required for the grammaticality of utterances. There is one particular context, however, where =*mi* is needed for felicity, namely utterances with corrective foci.

- (7) *Mana ñuka ushi=**chu**, ñuka warmi=**mi** / *warmi / *warmi=tá*
 NEG 1SG daughter=Q/NEG 1SG woman=**MI** / woman / woman=VER
 ‘She’s not my daughter, she’s my wife.’ (el_28112014_05, cf. Grzech 2020a:90)

This is congruent with the epistemic authority semantics of the marker, as well as with the analysis proposing that it marks speaker-exclusive information,

unexpected for the addressee. However, the optionality of *=mi* with other types of foci suggests that it is associated with focus, but cannot be analysed as a focus marker (Grzech 2016a, 2020a). The discursive motivation for its use is the speaker's intention to manage the common ground (henceforth CG) by countering potential misgivings by the addressee to integrate unexpected information into the CG. This is analogous to Faller's (2002) analysis of Cuzco Quechua *=mi* as occurring when the speaker anticipates being challenged.

10.2.3 Conchucos Quechua (ConQ): *=mi* as a marker of assertional force

ConQ is spoken in Peru and belongs to the Quechua I branch of the family. Besides being geographically and genetically distant from both Upper Napo Kichwa and Cuzco Quechua, there is no evidence of any type of direct contact having taken place among these groups of speakers.

As with UNK, the *bpg* analysis is incompatible with the distributional properties of *=mi* in ConQ (contra Hintz and Hintz 2017). As shown in (8), in this variety *=mi* is licensed in partial direct evidence contexts.

- (8) Context: speaker is trying to guess the contents of a box from the sounds it makes, without opening it.

Plumon=mi ayllu-u aw=ku mana=ku? Ma

marker=**MI** believe-1 yes=Q no=Q let's.see

'I think it's a marker pen. . . yes or no? Let's see.' (BendeZú-Araujo 2023a:85)

In this case, the best source of information for knowing what is in the box is to actually have (uncompromised) visual access. Note that as in UNK, here too, *=mi* is embedded under a modal epistemic: *ayllu-u* 'I believe', a distribution that, as noted above, is not possible in Cuzco Quechua (Faller 2012, 2014). Likewise, an analysis of *=mi* as a direct evidential is also incompatible with the ConQ data, as *=mi* can be used in context where direct evidence is not available, as in (9).

- (9) Context: A mother is talking about her daughter who is in a different, non-contiguous room. It is late at night and the mother has not seen her daughter since she sent her to bed.

Tracy=qa punu-yka-n=mi

Tracy=TOP sleep-PROG-3=**MI**

'Tracy is sleeping.'

(attested by BendeZú-Araujo)

In this example, the speaker uses *=mi* even though she does not have direct evidence for her assertion. However, she knows that this is what happens every night at around this time. Thus, the speaker is relying on her own world-knowledge as the basis for her assertion.

Here it is worth noting that the characterisation of *=mi* as a focus marker (cf. Muysken 1995, Muntendam 2009, Sánchez 2010) does not explain its distribution in Conchucos Quechua either. Although *=mi* often occurs on the focal constituent of utterances, it also occurs on non-focal constituents (Bendezú-Araujo 2023b). This strongly suggests that the relationship between *=mi* and focus is not categorical, much like the association with focus reported above in UNK.

Bendezú-Araujo (2021, 2023a) argues that the use of *=mi* in cases like (8) and (9) can be explained by characterising it as marker of assertional force (cf. Behrens 2012), based on a corpus of dialogical naturalistic data and elicited data (partially available in Bendezú-Araujo, Buchholz and Reich 2019), collected in 2015 and 2017. In this analysis, the speakers use *=mi* to increase the force of their assertions as a way to signal to the hearer that the content of the utterance must be included in the CG.

Given that *=mi* is syntactically optional, the additional effort involved in using it would be justified when the speaker believes that the hearer would have difficulties accepting the contents of the utterance. This analysis explains the distribution of *=mi* in example (10), in which a pair of speakers is trying to resolve a map task (Anderson et al. 1991). Each participant has received a map on which different figures serve as landmarks. One participant received the map with a road drawn from bottom to top and was tasked with guiding the other participant, whose map has no road. However, they do not know that the maps are not identical. The participants of example (10), ZR29 (f, 19) and HA30 (f, 19), are friends and classmates. At this point, they have already realised that their maps are different, and they are discussing the position of the figures in the upper half. Immediately prior to the start of the example, they have agreed on the figure of the fox being at the top of the map, but there are still issues with the other figures. Note that HA30 has the map with the road.

(10) **Conchucos Quechua**

a. HA30:

Atuq witsay-pa subi-yka-n
fox above-GEN go.up-PROG-3
'The fox is going up over there'

b. ZR29:

Aja
OK

c. HA30:

y tsay hana laadu-n-chaw=na=mi este huk manka
 and DIST.DEM over side-3-LOC=DISC=MI *ehm a pot*
 ‘And on that upper side there is *ehm* a pot.’

d. ZR29:

Ya
 OK

e. HA30:

Tsay manka-pita washa-man-pa-chaw=mi vuela-yka-n huk
 DIST.DEM pot-ABL DIST.DEM-DEST-GEN-LOC=MI fly-PROG-3 a
este anka
ehm eagle
 ‘From that pot, on the side over there an eagle is flying.’

(BendeZú-ArauJo 2023a:86)

In (10) we find three assertions that could be marked with *=mi*: (10a), (10c) and (10e), but only the latter two are. Given that there are no syntactic or referential reasons that explain this difference, it shows that HA30 is deliberately packaging the information in a special way. This is likely due to the fact that while the participants have agreed on the location of the fox, the locations of the other two figures have not yet been established. In this context, there is no need for *=mi* to be added to (10a), as using it on a proposition that has been agreed upon would not be worthwhile. Conversely, it does make sense to add it to (10c) and (10e), precisely because there is no agreement about them yet. Considering also that HA30 has the map with the road (i.e. the “correct” one), it is reasonable to assume that *=mi* is being used to increase the force of her assertion, to ensure that it is accepted by ZR29 and that they can proceed with the task.

Characterising *=mi* as an assertional strengthener accounts both for the distribution of *=mi* and its optionality by assuming that its use in ConQ is determined by two factors: (a) the speaker’s intention of persuading the hearer to accept the proposition as part of the CG, and (b) the speaker’s calculation of the likelihood that their proposition is included in the CG, taking into account the preceding linguistic context and their inferences about the knowledge state of their interlocutor. As can be seen, the terms of this analysis are analogous to the way Faller (2002:165) and Grzech (2016a, 2016b, 2020a) explain the difference between plain assertions and assertions with *=mi*, namely that a speaker will use *=mi* when they anticipate a challenge by the hearer.

10.2.4 Interim summary

As can be seen, despite the differences, there are important points of convergence between the three analyses presented in this section. In particular, they all agree on (a) the need to explain the optionality of *=mi* (although this is a much more central concern in the UNK and ConQ analyses) and (b) the effect that *=mi* has in the communicative interaction, as speakers expect that its use will make the hearer more likely to accept the content of the utterance as true. This points to significant similarities in its communicative use that might have been obscured by the fact that the authors have focused on different aspects of evidential semantics and pragmatics, and used different types of data.

In all three languages, the use of *=mi* seems to be motivated by intersubjectivity, understood as the interactants' considerations of each other's cognitive stance and status (cf. Heritage 2012). Indicating the source of information might be the main factor behind the use of *=mi* in Cuzco Quechua, but it cannot explain the distribution we observe in UNK and ConQ, nor does it clarify why *=mi* occurs when it does in interaction. The same is true for focus. Thus, an account of *why* speakers choose to use of *=mi* needs to address the fact that (a) it is not obligatory and (b) it is deeply intertwined with the construction of meaning in interaction. In the remainder of this chapter, we propose that the notion that has the potential to account for both of these requirements is speaker commitment.

10.3 A commitment-based account of *=mi*

In this section, we first introduce and define the notion of speaker commitment (Gunlogson 2008; MacFarlane 2011; Geurts 2019; Krifka 2024, a.o.), and discuss how it can be applied to UNK and ConQ. We believe that the main advantage of the commitment framework is that it allows for a systematic incorporation of intersubjectivity into the analysis, which is key to understanding the motivations behind the use of *=mi* in both languages.

10.3.1 Speaker commitments

The notion of speaker commitment that we apply in this paper is rooted in the assumption that action coordination between interlocutors is of prime importance for communication (cf. Geurts 2019). In this context, commitments are inter-

subjective by definition, as they are understood as three-way relations between propositions, speakers and addressees. This clearly distinguishes commitments from beliefs, which are two-way relations between speakers and propositions. Furthermore, while a belief may be the basis for a commitment, neither belief nor knowledge are entailed by it. What is important in the commitment account is that when a speaker makes an assertion, they automatically make a commitment to the addressee to act in a way that is consistent with the proposition expressed by this assertion being true. As we will see in the next section, focusing on commitments rather than beliefs or knowledge for the analysis of *=mi* does not require (or imply) abandoning these notions altogether.

Speaker commitments allow the addressee to rely on the speaker's future behavior (linguistic or otherwise) to be consistent with those commitments, which in turn allows for efficient action coordination. Accordingly, if the proposition turns out to be false, the hearer has the right to hold the speaker responsible. This entails that speakers are motivated to make commitments they can keep (i.e. that are true) in order to avoid social sanctions such as the loss of face or trustworthiness (Gunlogson 2008; Geurts 2019; Krifka 2019, 2023).

Although in principle all speech acts express commitments, we limit ourselves here to assertions, as this is the most relevant speech act for the analysis of *=mi*. We follow Krifka's (2023, 2024) analysis of assertions and assume that they express the speaker's social commitment that their propositional content is true. In formal terms, this means that assertions contain a semantic operator \vdash that is responsible for transforming a proposition into a public commitment, as in (11a), which roughly translates to "Speaker *s* publicly commits to the proposition *p* to the addressee *a* (in relation to the world-time *i* and the commitment event *e*)". Usually, this operator is not overtly realised, but it can be modified; that is, speakers can raise or lower the level of their commitments. In German, for example, adverbs like *wirklich* 'really' increase the level of the commitment, as in *Er hat das wirklich gegessen* 'He really ate it', as in (11b), which roughly translates to "Speaker *s* publicly *strongly* commits to the proposition *p* to the addressee *a*".²

² Note that it is possible for language-specific practices to influence how commitments are expressed. For example, in English, plain assertions already carry the implicature that the speaker has the intention of convincing the addressee (i.e., they come with a raised level of commitment), whereas in Hungarian plain assertions may be "weaker" than assertions modified by a belief predicate, which, in languages that work like English in this regard, would typically be treated as a hedging strategy and thus express a reduced level of commitment (Behrens 2012:220-222).

- (11) a. $\llbracket p \rrbracket^{s,a} = \bullet \lambda i \exists e [s \vdash_{i,e} p]$
 b. $\llbracket \text{Er hat das wirklich gegessen} \rrbracket^{s,a}$ ‘He really ate it’ = $\bullet \lambda i \exists e [s \vdash_{i,e} p \wedge \text{strong commitment}(i)(e)]$

(adapted from Krifka 2024:53, 55)³

In Krifka’s (2023:139–141) analysis, commitment modifiers are devices that specify the level or nature of the speaker’s commitment. A speaker would raise the level of commitment in a context where they fear that a regular commitment (like the one expressed by a plain assertion), may not be strong enough to convince the addressee to accept the propositional content of the assertion. As we will show in the next section, this analysis can be extrapolated to the use of *=mi* in UNK and ConQ.

10.3.2 A reanalysis of *=mi* as a device for strengthening speaker commitments in UNK and ConQ

In this section, we argue that, in both UNK and ConQ, *=mi* can be analysed as a commitment modifier, in particular, one that raises the level of the speaker’s commitment to the asserted proposition. That is, *=mi* strengthens the commitment already expressed in the assertion and, by explicitly signalling a stronger commitment to the truth, gives rise to the (conventional) implicature that the speaker insists on making it a shared commitment (i.e., accepting it as part of the CG). As we pointed out in Section 10.2, Quechua speakers use *=mi* in contexts where they believe the addressee will have difficulty accepting the truth of the proposition contained in the speaker’s claim. This is analogous to Krifka’s (2023:140) motivations for using a commitment modifier to raise the level of the speaker’s commitment.⁴

As we have shown, an analysis of *=mi* in terms of direct evidence or *bpg* fails to account for its use in examples (4) and (9), from UNK and ConQ, respectively. However, an analysis of *=mi* as a commitment modifier that increases the level of the speaker’s commitment correctly predicts its use in these examples, as well as in cases that are accounted for by the evidential analysis. As we will see below, this change of approach does not exclude the other components of the meaning of *=mi*, such as the notions of belief or authority (or even source or information).

³ This adaptation was proposed by A. Kocher, p.c. (see also BendeZú-Araujo and Kocher 2024).

⁴ Note also that Krifka (2023:140) adds that “commitment modifiers convey a sense of emphasis”, which is consistent with the fact that speakers of UNK and ConQ often claim that assertions with *=mi* are more emphatic than plain assertions (this is also the case for Cuzco Quechua, Faller 2002:146).

Consider example (12). This interaction comes from an application of the map task (see Section 10.2.3) with two ConQ speakers, TP03 (m, 32) and KP04 (m, 29). At this point in the task, they have already noticed that their maps are different. KP04, who has the map with the road, asks TP03 to confirm the location of certain figures in his map. Note that the propositional contexts of (12b) and (12d) are essentially the same: in both cases, TP03 is describing the relative positions of the bat and the pot, just from different perspectives, but he uses *=mi* in the first case and *=chi* in the second.

(12) **Conchucos Quechua**

a. KP04:

Ishkan=ku juntu ka-yka-ya-n manka-wan tsiqtsi?
 two=Q together be-PROG-PL-3 pot-INS bat
 ‘Are the two of them together, the pot and the bat?’

b. TP03:

No, manka ichik hawa-n-chaw=mi
 no pot bit below-3-LOC=**MI**
 ‘No, the pot is a little below (the bat).’

[. . .]

c. KP04:

Tsiqsi?
 bat
 ‘The bat?’

d. TP03:

Tsiqti=qa hana-kaq-chaw=chi ka-yka-n
 bat=TOP above-FOC-LOC=CHI be-PROG-3
 ‘The bat is above (the pot), I think.’
na-chaw atuq hana-n-chaw casi
 PSSP-LOC fox above-3-LOC almost
 ‘There, almost below the fox.’

(BendeZú-Araujo 2023a:88)

In BendeZú-Araujo’s (2021, 2023a) analysis, in (12b) the speaker expresses his belief that the proposition ‘the pot is below the bat’ is true, and by adding *=mi*, he expresses his intention that the hearer also comes to believe it, which would have the effect of updating the CG with this proposition. However, in (12d) the speaker expresses his belief that it’s *possible* that the proposition ‘the bat is above the pot’ is true. In an account of communication that takes assertions to be the expression of beliefs (cf. MacFarlane 2011), we would have to assume that the speaker no longer believes

in the truth of the proposition in (12b), but this would not be consistent with the fact that the position of the figures in his map has not changed.

In the commitment account, the use of *=mi* and *=chi* would be explained as a change not in TP03's beliefs but in the commitments he makes: in (12b) he commits to the truth of *p* and tries to ensure that it is added to the CG by using *=mi*, but in his next move he expresses his commitment to a weaker proposition ($\Diamond p$), effectively cancelling or retracting his previous commitment.⁵ This change in commitments may be motivated by different factors. For example, he may be unsure that he has understood what his addressee meant by *juntu* 'together' in (12a) or he may assume that since the addressee has the "correct" map (i.e., the one with the road), the authority about where the figures *should* be lay with him. In any case, what is relevant here is that, although he may still believe that the proposition 'the pot is below the bat' is true (at least with respect to his map), in (12d) he commits to act in a way consistent with its truth being only a possibility. As we can see, the commitment account preserves Bendezú-Araujo's insights that *=mi* is a marker that increases the force of the assertion, but without having to resort to speaker beliefs or intentions.

As we mention above, this does not mean, however, that the notions of belief and authority are not relevant to the study of discourse markers such as *=mi*. Here we argue that belief and authority could be treated as motivations for making (and modifying) commitments. After all, a speaker is more likely to commit to the truth of a proposition if they (a) know it to be true (e.g. through direct evidence or *bpg*), (b) sincerely believe in it even without definitive evidence (e.g. in the case of religious dogma, received world knowledge or informed conjectures), or (c) want to establish their authority in the matter. Notice also that these are the cases where a speaker can commit to a proposition with the least risk of social sanctions, which explains why commitment-strengthening devices are often used in these circumstances. Recall example (9), where a mother claims that her daughter is asleep, even though she has no direct evidence for this. Here, the speaker uses *=mi* because, by explicitly expressing her commitment to the truth of the proposition (i.e. by making a strong commitment), she ensures that the issue is settled, and in doing so she is backed up either by her belief in it and/or by her authority as a mother (since primary caregivers are usually the ones better informed about matters concerning

5 As MacFarlane (2011:135-137) points out, the belief-based account struggles to provide a straightforward explanation of retraction. On this account, assertions are the expression of beliefs. If retraction is the withdrawal of an assertion (i.e., taking it back or making it null), then it would count as the "unexpression" of a belief. But how can something be 'unexpressed'? Moreover, a retraction does not necessarily imply a lack of belief: speakers may choose to retract an assertion in which they still believe because they realise that they "cannot adequately defend the claim, or because [they do] not want others relying on it".

their children, and likely to treat these matters as being within their authority, cf. Sandman and Grzech 2022). However, the speaker could also make the same claim even if she doubts whether her daughter is actually sleeping or if she knows that it is not the case (i.e. if she is lying). This shows that, while belief and authority are usually involved in the making and strengthening of commitments, they are not a prerequisite for them.

While belief, authority and other epistemic notions can explain the motivation for making a commitment, another relevant aspect of the commitment account is its source. Gunlogson (2008:13) defines the source as the agent who is committed to the proposition *p*, and whose commitment to that proposition is ‘not dependent on another agent’s testimony’ in that particular discourse. This definition rests on the assumption that the speaker and the addressee can have private epistemic commitments that they do not necessarily have to make public, but that, if a commitment is made public, it needs to have a source. When individuals other than the source commit to *p*, their commitment is *dependent* (Gunlogson 2008:13) on the commitment of the source. This nuancing of how a public discourse commitment can arise is very useful for explaining the use of =*mi*, as well as other Quechuan epistemic markers. This is illustrated with the UNK interaction between N and Y in (13). The dialogue takes place in a canoe, on the way to Y’s *chagra* (agricultural plot of land). Besides them, there are two other people in the canoe: Y’s son, a young adult, who is steering the canoe, and the second author of this paper, who is recording the interaction. The first three lines of the interaction are directed towards Y’s son, indicating how he should steer, and then the topic shifts to the discussion of the products from Y’s *chagra*.⁶

- (13) a. Y:
 (. . .) *kasna-ni=llara apa-ngui kasna iyan-gui peñas*
 like.this-?=ID.REF bring-2 like.this think-2 rocks
siki-ma apa-sha ri-sha
 side-DAT bring-COR go-COR
 ‘Just bring [the canoe] here. Thinking like that you’ll take [us] into the rocks!’
- b. N:
kay pura-ma=lla=mi ni-n yallik-ta
 DEM.PROX side-DAT=LIM=MI say-3 well-ACC
 ‘Take [the canoe] just here, [she] says it’s much. . . [the river is high].’

⁶ The morpheme *-ni* in line ‘a’ is a verbal suffix indicating 1st person singular subject in the present tense. Its function in this context is not clear. Note also that in line ‘g’, the name of the speaker has been changed for privacy reasons.

- c. Y:
kay=llara kay=llara kasna=llara apa-y, yapa
 DEM.PROX=ID.REF DEM.PROX=ID.REF like.this=ID.REF bring-2.IMP much
*urti=**mi** chi pura-ma*
 strong=**mi** DEM.DIST side-DAT
 ‘Take it just here, just here, just like this, on that side [the current] is very strong.’
- d. *kay=llara shina=**n** chi pura-ra muyu-chi*
 DEM.PROX=ID.REF like.this=**mi** DEM.DIST side-ACC turn.around-CAUS
 ‘Just from here, like this, turn [the canoe] around.’
- e. *inarasha. . . chinga-chi-ka-ni ni-sha kuna=ga ansa*
 so.then waste-CAUS-PST-1 say-COR now=TOP little
*ansa-wa=lla=**mi** chari-ni ni-sha rima-ka-ni, palanda-ra*
 little-DIM=LIM=**mi** have-1 say-COR say-PST-1 plantain-ACC
rin-gama unay apa-y-pasa-nun.
 go-LAT long.ago take-EPEN-pass-3PL
 ‘So then. . .saying [to my *comadre*] “I let it go to waste.”, saying “now a bit. . . I have a little bit” I said, the plantain, until [we] go, [the thieves] pass and take it at once.’
- f. N:
pi-ta shuwa-n, kay-manda-guna=llara?
 who-ACC steal-3 DEM.PROX-ABL-PL=ID.REF
 ‘Who steals, [are they] from around here?’
- g. Y:
*kay=ma, pay ni-sha Valentina=**mi** ni-ká*
 DEM.PROX=MA 3SG say-COR Valentina=**mi** say-PST
 ‘Here, according to her saying ‘It is Valentina’, she said.’
- i. N:
Mhm. . .
mhm
 ‘Mhm’ (Grzech 2020c, in_01082013_02, annotations 50–62)

In (13b), N uses a combination of *=mi* and *nin* (say-3) to give directions about where the canoe should go. The combination of *=mi* and a verb of speech is a default strategy for expressing reported speech in UNK. In line with the account of the marker as indicating epistemic authority, such a construction encodes epistemic authority residing with the reported speaker (i.e., not with N himself). The commitment account adds further specification: the use of *=mi* strengthens the commitment of the source, that is, of the reported speaker, and also indicates that the epistemic

authority rests with them. The current speaker's commitment to the reported proposition *p* is thus dependent on that of the original speaker. We see that in (13b), where N is reporting the prior utterance of Y from (13a). Here, Y can be considered the expert on how the river behaves at this stretch, as she frequently takes the canoe to go to her *chagra*. This is confirmed in (13c), where Y uses *=mi* to inform her son about the state of the river. The utterance rests on her authority, and the explicit signalling of that, and the strengthening of her commitment, brought about by the use of *=mi*, could be explained by the fact that she needs to immediately elicit shared commitment to *p*, as the addressee needs to take it into account to steer appropriately. The same is true in (13d), where *=mi* is realised as an allophone *=n*.

From (13e) onwards, the conversation shifts to a different topic, or, rather, returns to a previous one. Y is talking about her experience with the produce of the *chagra*. She tells N about an interaction she had with her *comadre*⁷ and quotes her own previous utterances. This is a standard way of reporting one's own previous discourse, where the origo of epistemic authority, and the source of commitment, is the speaker's 'former self'. N's subsequent question in (13f), asking about a thief, indicates that Y has previously mentioned theft. In (13g), Y goes on to identify the thief. However, as she does so, she presents the information about the thief's identity as a quotation, using the verb of speech twice, and marking the reported statement with *=mi*. Accusing someone of theft is a discursive act that, if the accusation turns out not to be true, could bring on serious social sanctions, so this presentation can be analysed as a face-saving strategy. Y makes a public discourse commitment, but also indicates that the epistemic authority on the matter is not hers, and she is thus not the source of commitment, in Gunlogson's terms. Nonetheless, the public commitment still holds, and is accepted by N in the next line, where 'mhm' indicates the acceptance of Y's previous utterance.

As mentioned above, the source of commitment is relevant for the discussion of *=mi* in Quechuan languages because it helps explain the use of this marker, as well as the use of the other enclitics that form the epistemic paradigms in these languages. The following exchange from UNK illustrates how *=mi* contrasts with two other markers, *=cha* and *=mari*, in this regard. In the example, L and S discuss the actions of J, S's husband. Note that L is one generation older than S and J, and that all three of them are members of the same family, and also united by the relation of *compadrazgo*, which creates social proximity that can be used as basis for taking epistemic licences which might not be felicitous in interaction with people to whom one has a more distal social relation.

⁷ *Comadre* and *compadre* are the godparents of one's child. Being in this relationship is considered a source of close social affinity in the Kichwa society.

- (14) a. L:
J. compadre ima wasi-ta ra-w-n?
J. compadre what house-ACC make-PROG-3
 ‘What building is compadre J. going to build?’
- b. ... *cosina?*
 kitchen
 ‘...the kitchen?’
- c. S:
mana, mana raw-n=marí
 NEG NEG make-PROG-3=**MARI**
 ‘No, he’s not building.’
- d. L:
tsatsa-ra wasi ra-nga=cha asta-nga ra-w-n
 sand-ACC house make-FUT=**CHA** take-FUT AUX-FUT-3
 ‘The sand, to make the house he will take (it).’

(Grzech 2020c, ev_24052013_01, lines 012-015)

In (14a), L asks S about J’s plans to build a section of the house. The question entails that J is building something, and in (14b), L makes explicit her supposition that he will build a kitchen. In (14c), both the entailment and the supposition about the kitchen turn out to be problematic, as S replies that there is no building taking place. She marks that utterance with *=marí*, an epistemic enclitic used to signal that the addressee should know something but acts as if they have forgotten (Grzech 2021). Both interlocutors know that J came to the household where L lives a few days before to borrow a wheelbarrow, but, as (14a) and (14b) make explicit, L drew erroneous conclusions from this fact. Thus, what S is doing in (14c) is telling L that she made the wrong assumptions, but doing it in a way that mitigates the threat to L’s face: both L and S are presented here as holders of epistemic authority, and thus as potential sources of the public commitment that arises as a consequence of the utterance of (14c), despite the fact that L’s previous two turns potentially commit her to a contradictory proposition. In (14d), L takes this up, using *=cha*, which disclaims epistemic authority, to distance herself from the assumptions made explicit in (14a) and (14b). This discussion shows that while the account in terms of epistemic authority alone can explain the use of these markers in (14), enriching it with the commitment dimension gives a better account of the communicative motivations behind their use, and allows us a better understanding of the intersubjective motivations of speakers for using epistemic marking in general.

Apart from adding more nuance to the explanation of why and how *=mi* and other epistemic markers are used in discourse, a commitment-based theory of communication provides a possibility to account for self-talk: a context in which

Quechuan evidentials also tend to be used. Geurts (2018) sees self-talk and social talk as a continuum, and, consequently, underlines the need to account for them in a unified manner. If communication is seen solely as information exchange, then self-talk is superfluous (Geurts 2018), as one does not need to exchange information with oneself. However, if speaking also means undertaking commitments, then self-talk makes more sense, as one can plausibly make a commitment to oneself, e.g. to undertake an action ('I will do this later'). In UNK, *=mi*, as well as the cognate of the inferential *=cha*, are often found in stretches of discourse that resemble self-talk, notably in the context of self-corrections. This was already shown in (6), and is also showcased in (15):

- (15) *chi churi-wa... ñuka iya-ka-ni churi-wa=mi pay-pa*
 DEM.DIST SON-DIM 1SG think-PST-1 SON-DIM=**MI** 3SG-GEN
churi=mi a-nga ni-sha...
 son=**MI** COP-FUT say-COR
 'This little boy... I thought [he was the farmer's] son, I said/thought, it's going to be his son.'
 (el_21092014_02 69, cf. Grzech 2016a:360)

Example (15) comes from a re-telling of a 'Pear Story'. It was uttered when the speaker saw a boy steal the pears, and thus realised he was not the son of the men picking the fruit. It is akin to example (6), also coming from a re-telling of the 'Pear Story' by a different speaker. Both examples involve self-corrections. On the epistemic authority analysis of *=mi*, they can be accounted for as involving two perspectives: that of the current speaker, and that of the reported speaker, who in this case is the same person, just moments before they realised something new about the story they are telling. In (15) the speaker is currently not asserting that the thief is the farmer's son, but reporting that she did assert that just a moment before. Reportative constructions in UNK tend to involve a verb of speech and *=mi*, and Grzech (2023) analyses them as indexing authority to the reported speaker, but a simpler analysis could be cast in terms of commitment. In self-reports, the speaker would use *=mi* when quoting their prior utterances to signal that, at the time of that utterance, they undertook a commitment, which might, but also might not (as in (15) and in (6), where this is made explicit with the use of *=cha*), hold at the time of the current utterance.

This is also compatible with prior research. Krifka (2013;2014) analyses speech acts in terms of commitments they give rise to. Making a certain speech act brings on a certain commitment, e.g. making an assertion is characterised by 'assertive commitment' – being liable to the addressee for the truth of the proposition (cf. Fallner 2014:52). However, in embedded speech complements it is not the speaker, but the subject of the matrix clause who is liable for the truth of the proposition,

which is merely ‘presented’ by the speaker as someone else’s point of view. This is in line with Faller’s proposal according to which there is a separate speech act of presenting, which differs from assertion (Faller 2002, 2012 for Cuzco Quechua). There are important differences between the properties of direct speech complements in UNK and in Cuzco (see Grzech 2016a:361–62 for discussion), but they bear no consequence for the commitment-based analysis that concerns us here.

A case that requires special attention concerns the embedding of *=mi* under an epistemic modal, as in examples (4) and (8), repeated here as (16) and (17).

- (16) Context: The speaker hears footsteps outside, and was expecting his father to come home.

ñuka *yaya* *shamu-w=mi* *yachi-n*
 1SG father come-PROG=**MI** seem-3
 ‘It seems my father is coming.’

(Grzech 2016b:89)

- (17) Context: speaker is trying to guess the contents of a box from the sounds it makes, without opening it.

Plumon=mi *ayllu-u* *aw=ku* *mana=ku?* *Ma*
 marker=**MI** believe-1 yes=Q no=Q let’s.see
 ‘I think it’s a marker pen. . . yes or no? Let’s see.’

(Bendezú-Araujo 2023a:85)

Given the context, it is clear that the speakers are not committing to the truth of the propositions ‘my father is coming’ and ‘it is a marker’, in (16) and (17) respectively, otherwise they would not have used epistemic modals. An alternative is to assume that they are committing to the proposition ‘it’s possible that *p*’. In this case, our analysis would predict that by using *=mi* the speakers are strongly committing to these propositions, which is consistent with Krifka’s (2024) approach, where commitment modifiers scope above epistemics modifiers (*yachi-n* and *ayllu-u*, in this case). However, this analysis would need to explain why the linearisation of (16) and (17) seems to suggest that *=mi* is under the scope of the epistemic modal; that is, a detailed syntactic analysis would be needed (which is out of the scope of this paper).

In any case, it is clear that a better understanding of the function of *yachi-n/ayllu-u* in these languages (and of Quechua syntax in general) is needed to resolve this issue. Note that the commitment approach provides a more straightforward account of the use of *=mi* in this case than the notion of assertional force in the ConQ analysis in Section 10.2.3. However, this is not the case for the notion of epistemic authority in the UNK analysis in Section 10.2.2. Here, cases like (16) are explained on the assumption that although the speaker may not be certain about the truth of the

proposition, the events still fall within his information domain and he therefore retains epistemic authority over them.

Coming back to the core of our proposal, when we explicitly strengthen a commitment (when the commitment of the speaker was already expressed in the plain assertion), it triggers implicatures about the motivations for doing so. The most common case would be to assume that the speaker raises the level of commitment because they know that *p* is true (for instance, when they have evidence for it), but this could also be just to indicate that one has authority and should not be challenged (for instance, because a given piece of information is within the speaker's Territory of Information, cf. Kamio 1997). However, one can also lack knowledge and raise the commitment. As we see it, belief and knowledge can lend support for the commitment or make the hearer more likely to take the commitment at face value (that is, they can influence how the speaker's commitment is evaluated by the hearer), but they are not preconditions for the commitment itself. What is important here is that the speaker commits to the hearer to act in a way consistent with the proposition. When a speaker uses *=mi*, they are asking the hearer to turn that commitment into a shared commitment and to act accordingly. Why would the speaker require such change in the status of the commitment? To ensure a successful action coordination. The next logical step for the research initiated here – the (comparative) analysis of interactional motivations for using *=mi* – would be a more nuanced analysis of the relationship between commitment, authority, expectations, and knowledge ownership, as well as a thorough analysis of the interactional and interpersonal contexts in which *=mi* is used across Quechuan varieties.

While we see commitment as a potential underlying dimension of analysis for *=mi* across different Quechuan varieties, we do not exclude the possibility that other semantic and pragmatic factors may also need to be considered to fully account for the marker's use. In that sense, while analysing *=mi* through the lens of commitment provides a common framework, it does not erase other relevant features of the marker, such as its association with evidentiality, focus and intersubjectivity. At the same time, however, this account would benefit from a closer investigation of how commitment – as a possible umbrella category – relates to other aspects of semantics and pragmatics of Quechuan evidentials, such as epistemic authority, knowledge ownership, etc.

Incorporating commitment into the account of *=mi* in the two Quechuan languages discussed in this paper has several advantages. In empirical terms, it allows us to explain to what end the marker is used, and also to consistently account for why speakers choose to use it when they do. In theoretical terms, given that notion of commitment is inherently intersubjective, this allows for a systematic incorporation of the role of the addressee into the semantics of *=mi*.

10.4 Conclusions

The analysis presented in this chapter is a first approximation of a commitment-based account of evidential/epistemic marking in Quechuan. As such, it leaves many open questions for further research. These include a commitment-based account of other markers from the Quechuan epistemic paradigm, as well as exploring the interplay between commitment, authority, and ownership of knowledge. Furthermore, this chapter has stopped short of discussing *=mi* in non-assertive speech acts and accounting for these occurrences within the commitment-based framework (but see Bendezú-Araujo and Kocher 2024 for a first approach to this issue in ConQ).

That said, even if the analysis sketched above is preliminary, the approach we put forward has a clear advantage over other frameworks proposed to date: it is inherently intersubjective. In the commitment-based analysis of Quechuan *=mi*, the involvement of the addressee is a prerequisite, rather than an extension of primarily speaker-based notional categories such as *bpg*, epistemic authority, or assertion strengthening. In this sense, conceptualising commitment as an umbrella under which Quechuan evidential/epistemic markers can be understood facilitates the formulation of more straightforward comparative analyses. Furthermore, it explains well what we find in that data: that the use of these markers depends on the situational and interpersonal context of the utterance, and not on the speaker's source of information. Moreover, the commitment-based framework directly links the discussion of Quechuan evidentiality to new conceptualisations of communication as a dyadic exchange, in which the roles of the speaker and the addressee are equally important in the process of creating meaning (cf. e.g. Hansen and Terkourafi 2023).

Moreover, including commitment alongside other notions relevant to the analysis of *=mi* in different Quechuan varieties – *bpg*, focus, epistemic authority, assertional force, validation, personal perspective – contributes a plausible common core to the semantics of the cognates of *=mi*. In this paper, we only discuss three varieties belonging to the family, but the enclitic *=mi* is attested throughout Quechuan languages. It is plausible to assume that all the different realisations of *=mi* throughout the family are cognates. And if so, it is also valid to ask what common semantic core they have all evolved from. To the best of our knowledge, commitment as an analytical dimension is compatible with all the synchronically attested variants of the enclitic. As an inherently intersubjective device for ensuring the flow of communication, it is plausible to postulate that such a commitment-related marker could have evolved into the variety of pragmatically nuanced meanings and uses it has today across the family. This also raises the issue of the role of cultural and epistemic norms, which vary from culture to culture, and which influence the concepts that are relevant enough to warrant their dedicated morphological expressions. Epistemic norms — decisive for which beliefs are going to be

recognised as socially accepted knowledge — evolve over time and differ across communities (van Dijk 2015:68). Thus, it is also plausible that, across communities, similar epistemic markers acquire different shades of meaning, depending on the epistemic categories each community regards as most relevant. Although this discussion is, at this point, purely speculative, it flags important issues in the research not only on Quechuan evidential/epistemic markers, but also on epistemic systems more broadly. It points to the need of incorporating broader cultural norms into the possible conceptualisations of epistemic systems (see also Shreshta, this volume), and of exploring the ways in which these norms can affect the shape, functions and uses of epistemic paradigms.

Abbreviations

1	first person
2	second person
3	third person
ABL	ablative
ACC	accusative
ANT	anterior
AUX	auxiliary
CAUS	causative
COP	copula
COR	coreference
DAT	dative
DEM	demonstrative
DEST	destinative
DIM	diminutive
DISC	discontinuative
DIST	distal
EPEN	epenthetic
FOC	focus
FUT	future
GEN	genitive
ID.REF	identity of reference
IMP	imperative
INS	instrumental
LAT	lative
LIM	limitative
LOC	locative
NEG	negation
PL	plural
PROG	progressive

PROX	proximal
PSSP	pas-par-tout
PST	past
Q	question
SG	singular
TOP	topic
VER	verum

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