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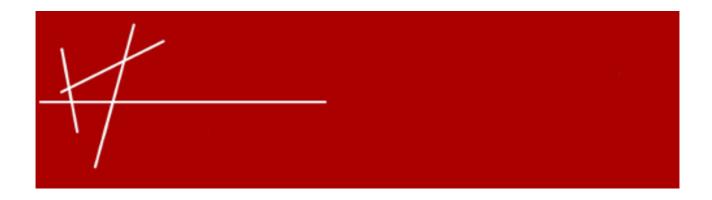
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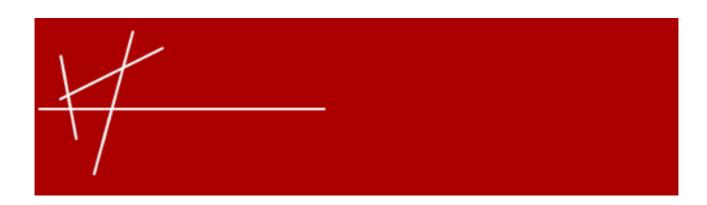
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Linguistic Typology at the Crossroads

Disentangling topicality effects

Edited by Doriana Cimmino and Pavel Ozerov

CONTENTS

Disentangling topicality effects - Editorial paper	
Doriana Cimmino, Pavel Ozerov	1-27
Topicality and the problem of "topic" in American Sign Language discourse	
Terry Janzen	28-66
Topic vs. Allocutive in the Language into Act Theory	
Emanuela Cresti	67-118
Genre-dependent Discourse-Topic Persistence in English Inversion	
Heidrun Dorgeloh	119-142
Left Detachment in a verb-final language: the interactional perspective	
Pavel Ozerov	143-180



Linguistic Typology at the Crossroads

Beyond the topic-marking discourse function of Left Dislocations. Evidence from		
Italian, Spanish, and English spoken	corpora	
Doriana Cimmino, Valentina Sacco	one 181-234	
Prosody and the information funct	ions of Topic in spoken Chinese according to	
Language into Act Theory		
Chuai Luo	225 277	



Disentangling topicality effects

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Abstract

This paper introduces the special issue Disentangling Topicality Effects. The contributions are the result of a selection from the homonymous workshop organized at the 55th meeting of the Societas Linguistica Europaea, held in Bucharest on 25–26 August 2022. They offer empirical analyses of topic markers or topic-related constructions with the aim of critically exploring their functions and the relation of the latter to the concept of topic. Before analytically presenting the specific goals and results of each paper, we provide an overview of the category of topic. Without purporting to be exhaustive, we highlight the theoretical evolution of the concept, as well as some of the gaps that remain in its description, with the hope that this will contribute to a broader scholarly debate on the subject.

Keywords: topic; topic related constructions; corpus-based; cross-linguistic; information structure.

1. Origin and Aims

This volume represents our engagement with what we hope will become a sustained and evolving dialogue on the concept of topic. At the workshop Disentangling Topicality Effects held in Bucharest on 25–26 August 2022, in the frame of the 55th meeting of the Societas Linguistica Europaea, we invited scholars from different theoretical and methodological backgrounds to examine phenomena commonly dubbed "topical". Our declared theoretical aim was to discuss whether and to what extent the traditional concept of topic is theoretically and empirically relevant for the study of spoken and written discourse. The empirical path suggested was the

description of functions of constructions traditionally related to the concept of topic from a corpus-based, and/or interactional, cross-linguistic or typological view, and the interrelation between these functions and the notion of topicality. The special issue is the result of a selection of the workshop contributions.

This introduction sets the ground for the special issue, discussing the different views and definitions of topicality. Without claiming to be exhaustive, we address the role of the concept of topic in linguistic analysis and theory (section 2) and its recent discussions (section 3), situating topicality in the light of the current advances in the study of relevant phenomena across typologically and genealogically diverse languages (section 4). We then detail (section 5) the aims and scope of the studies offered in this volume, which critically discuss the concept from different theoretical perspectives (from textual to interactional and prosodic based, but grounded in actual data), considering different topic-related structures (such as Left Dislocations, Inversions and Allocutives) and languages of use (namely, English, Spanish and Italian, Mandarin Chinese, Anal Naga and American Sign Language). We conclude by highlighting perspectives that may contribute to an ongoing dialogue on the concept of topic (section 6).

2. Classic definitions and core traits

The notion of topic is used broadly in linguistic description, analysis, and theory. It is intuitively appealing and provides a convenient label for a large array of language-specific markers and structures. Debates on how to approach topicality and to define topics were particularly salient from the late 1960s to the late 1990s (Firbas 1964; Gundel 1974; Li 1976; Haiman 1978; Reinhart 1981; Lambrecht 1981; 1994; Vallduví & Engdahl 1996, to name a few). Rather than providing an overview of this debate, we critically examine the approaches taken thus far to the relationship between the classic notion of topic and some of its core properties.

In the most intuitive view, speakers select a referent from the relevant entities and organize their message from the perspective of this referent. This rationale underlies the most widespread view of topicality as an *aboutness* relationship between a referent and the proposition, and an according interpretation of a sentence constituent

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¹ English: eng, Indo-european, Germanic; Spanish, spa, Indo-European, Italic; Italian: ita, Indo-European, Italic; Mandarin Chinese: cnm; Sino-Tibetan/Trans-Himalayan, Sinitic; Anal Naga: anm; Sino-Tibetan/Trans-Himalayan, South-Central, India; American Sign Language: ase, Sign Language.

(typically an NP). This aboutness-definition persists in literature for decades (Hornby 1971; Kuno 1972; Reinhart 1981; Gundel 1988; Lambrecht 2000; Endriss 2009; Dalrymple & Nikolaeva 2011). The origins of the idea can be traced to Plato and Aristotle's *onoma* and *rhema* splitting of the logos (Matić 2022), and its evolution into a "psychological subject" in the 19th century thinking (von Heusinger 2002). Gundel's definition (1988) was particularly influential in the aboutness-definition trend: "An entity, E, is the topic of a sentence, S, iff in using S the speaker intends to increase the addressee's knowledge about, request information about, or otherwise get the addressee to act with respect to E." (Gundel 1988: 210).

Hence, (1) singles out Jane and describes how a state of affairs refers to her, (2) selects the addressee as such an entity, and (3) selects Jane's English [skills] instead.

- (1) Jane speaks English better than you.
- (2) You don't speak English as good as Jane.
- (3) Jane's English is better than yours.

In the aboutness approach to the definition of topic, what is being said about Jane, the addressee, or Jane's English skills is described as the Comment of the proposition. Propositions are indeed typically (but not inherently) arranged into a topic–comment structure.

Another intuitively appealing and classical approach to topic is its definition as the *departure point of the proposition*. Starting with the Prague school tradition (Firbas 1992) in which the concept of theme was understood functionally, it is Halliday (1985) to redefine the theme as the starting point, which is the element that "the speaker selects for 'grounding'" their message (Halliday & Matthiessen 2004: 58). In this framework, theme replaces the notion of a "psychological subject" (p. 56), and as such appears to be the counterpart of topic. However, it is a broader notion that encompasses diverse starting points, in addition to "topical themes" (p. 79). It includes a variety of structures that frame the interpretation of the message, such as modal adjuncts ('frankly', 'I presume' etc.), conjunctive items ('actually', 'and then'), vocatives (see also Lambrecht 1996 on vocatives as topics; cf. also Portner 2007), imperative verbs, and more.

Departure points also include frame-setters, such as locative, temporal, conditional and other expressions illustrated in (4). These are closely associated with the topical role, and some of them were explicitly argued to be a type of topics, as is famously

the case with conditionals (Haiman 1978). Similarly to "aboutness"-topics, they reflect different aspects of the foundation laying role of theme in the Prague school approach.

(4)

- a. **On Wednesday afternoon**, that hope was dashed.
- b. **B. and O. J., in the neighbouring village of Kippel**, were getting their chimney fixed.²

A range of initial, pre-clausal, and syntactically detached structures (such as as for, *concerning X*, left-detachment) is used for additional closely related but often highly specific functions, related to aboutness, frame-setting, or discourse structuring ('Chinese-style' or dangling topics in Chafe 1976; Repp 2011). The fact that this kind of structure is prominent in e.g. Mandarin, as illustrated in (5), resulted in the conceptualization of topic as a syntactic category in such languages (LaPolla 2009).

(5) Mandarin Chinese (Chen 1996)

Wù-jiǎ Niǔyue zuì guì. thing-price New.York most expensive

'As for the price of things, New York is the most expensive.'

In addition to aboutness, communicative dynamism, position and syntactic iconicity, classical definitions of topic typically identify other *core traits*, such as the presupposition of the semantic content, its relevance within the overall utterance, all linked to the referentiality, definiteness, identifiability, and givenness of the topic constituent. The risk of aligning these categories too closely with the concept of topic is that the properties associated with topicality become conflated with the concept itself. Consider, for instance, the case of *givenness*.

The topic–comment partition of utterances has been traditionally linked to the idea that sentences are divided into old-new information parts (Givón 1983); some views even regarded the two as identical (Gundel 1974). However, it is crucial to identify at least two orthogonal dimensions within the notion of givenness (such as the Prague School and Halliday's Functional Grammar, see LaPolla 2019 for a concise historical

² https://www.bbc.com/news/resources/idt-c7f929de-96a9-45e5-b1bb-31de82fce72d, accessed June 2, 2025

overview and discussion). The particularly relevant distinction is between the contextual givenness of a referent or information accessibility in Ariel's (1990) framework) on the one hand, and on the other hand, the role of the referent/information in the proposition, such as its back- vs. foregrounding. The two do not necessarily overlap, as Reinhart's (1981: 72) famous (6) illustrates.

(6) A: Who did Felix praise?

B: Felix praised HIMSELF.

Both 'Felix' and 'himself' in B's response refer to the same person, and this referent is equally given for both. However, while the referent's role as the praising person is expected, predictable, and backgrounded, his identity as the person being praised is novel and foregrounded. Consequently, we must distinguish between the givenness of information and its role in the proposition. This distinction is conceptualized by Lambrecht as the difference between the pragmatic status (whether the referent is mentioned in the previous text) and its pragmatic role in the proposition (whether it is used as the referent the proposition is about (the topic), or an update about such a referent (the comment)). Given referents can constitute part of the updating information if their relationship to the proposition is not previously known, as in (6). And topics can be contextually new, as for example commonly happens in newspaper reports such as the opening of an article in (7).

(7) **The village of Blatten** has stood for centuries, then in seconds it was gone. **Scientists monitoring the Nesthorn mountain above the village** in recent weeks saw that parts of it had begun to crumble, and fall on to the Birch glacier, putting enormous pressure on the ice.³

To address this phenomenon, Lambrecht (1994) distinguishes between established topics (or *ratified* in later literature, e.g. Lambrecht & Michaelis 1998) and non-established ones. The former are referents expected to function as topics in the current discourse stage, as is the case with Felix in B's answer in (6). The latter are new referents, whose topical function is unexpected, as are the topics in (7). Similarly, in spoken language, although topics are commonly regarded as given (Chafe 1994), this

³ https://www.bbc.com/news/resources/idt-c7f929de-96a9-45e5-b1bb-31de82fce72d, accessed June 2, 2025

is not necessarily the case. Gundel (1988) proposes familiarity, in the sense of an existing memory representation, as a felicity condition on topics. However, Endriss (2009) provides an extensive discussion of indefinite topics for German. In conclusion, givenness, along with the other traits discussed above, does not by itself suffice to define the concept of topic, even though each tends to characterise topical information.

Finally, it must be added that the information structural notion of topicality discussed here is distinct from and must not be confounded with discourse-level topicality. Following Givón (1983), discourse topics are defined as a relative salience of a referent in multi-sentential sequences, as judged by its recurrent mention. This characteristic does not have direct relationship to information structuring, and new discourse topics (referents that end up being salient in subsequent text) are often introduced in the comment part of the sentence.

3. Refining the definition of topic and its core traits – is this sufficient?

Various recent approaches, although not all, agree on the aboutness effects produced by sentence topics, but the actual definitions and the proposed sources of this interpretation differ. Many frameworks take the cognitive approach to topicality, regarding topic as a "cognitive category" (e.g. Krifka & Musan 2012: 5) or as a direct reflection of a dedicated cognitive process. Lambrecht (1994) posits the aboutness relation as a primitive notion through which topicality is defined, rooting it in admittedly vague Strawson's (1964) usage of "about" and "topic" in his "Principle of Relevance", for Lambrecht (1994), it is a universal pragmatic category that corresponds to the "mental representation" of a referent as having an aboutness relationship to the proposition. Unsatisfied with treating "aboutness" as a basic analytic notion, other approaches postulate a cognitive machinery from which this interpretation is derived. The common solution is describing human information processing and memories consisting of cognitive "indexes", "addresses" or "folders" where new information is stored and through which information is assessed. In this interpretation, the aboutness relationship is a byproduct of the indexation procedure. These frameworks originate in the analyses of Reinhart (1981) and Heim (1983), and are developed in an explicitly cognitive perspective in follow up research (Vallduví 1994; Portner & Yabushita 1998; Erteschik-Shir 1997). Searle's (1969: ch. 4) idea to regard referring as a special type of speech act paved the way for the according view of topicality. In these approaches, topics represent a separate communicative action

of selecting a referent, announcing its status as a relevant discourse file, and committing to address it in the subsequent discourse. This is suggested by Repp (2011) for left-detached structures, and developed by Endriss (2009) more generally with the formalism of cognitive addresses. For Portner (2007), topical function is a performative instruction "my cognitive representation of X is active", with the aboutness effect being an outcome of that. However, the indexation, folder, or address-based model of cognition is rooted in the linguistic topic-comment model, postulating cognitive models in a way that would match this partition. As a result, it is no surprise that it accounts for linguistic phenomena from which it is directly derived. With no independent cognitive evidence for such mechanisms, it provides no parsimonious explanation for the aboutness interpretation, but rather transfers the burden of explanation to a more sophisticated, idiosyncratic, and otherwise unattested cognitive apparatus.

Non-cognitive definitions approach topics through a combination of structural and functional characteristics. Firbas partitions the theme, defined through its position, into a scale of functions "arranged in accordance with a gradual rise in CD [Communicative Dynamism]" (1992: 66). The semantic-pragmatic mapping of functions like "aboutness" or "frame-setting" is fitted within this accurately grained domain (e.g. Settings; Bearer of Quality etc.). The L-AcT methodology (Cresti & Moneglia 2018) is based on the combination of structural, prosodic, and semanticpragmatic properties of the utterance in spoken language. Reference units are identified in the flow of speech and segmented through prosodic breaks relevant to perception (Swerts 1997). Once the reference unit is identified, it can be segmented further into information units, with a one-to-one correlation between information units and prosodic units. The unit of Topic is characterized by its initial position and non-terminating intonation contour, and has the function of selecting a domain of pragmatic relevance for the illocution. It supplies the semantic and cognitive representations to which the Comment is referred; Without the Topic unit, the utterance necessarily refers to the contextual domain.

Additional differences are found in the assumption regarding the number of topics necessary or possible for a proposition. One view assumes that each proposition has a single topic, the address through which the proposition is assessed (Reinhart 1981). A different, and probably a more widespread view, suggests that a proposition can provide information with respect to a relationship between two topics, as is the case in the second clause in the response in (8) (Lambrecht 1994: 150).

(8) O: What ever became of John?

A: **He** married ROSA, but **he** didn't really LOVE **her**.

A similar position is argued for example by Erteschik-Shir (1997). The notions of tail (Vallduví 1994) and secondary topic (Dalrymple & Nikolaeva 2011) were developed specifically for the analysis of information that has topical properties but is additional to the primary (typically clause-initial) topic. In addition, some frameworks accept propositions that have no topic, as is the case with thetic constructions dubbed by Lambrecht (1994) accordingly "all-focus" sentences. However, following Strawson (1964), Erteschik-Shir (1997: 44) defines topics as referents through which the proposition is assigned truth conditions. As a result, in this framework, topic-less propositions would lack truth-conditions. To solve this issue, Erteschik-Shir attributes them a "stage topic" (a discourse specified "here-and-now"). However, this kind of topic would be available for each proposition in the discourse, and resorting to it only in cases where theoretical assumptions require that to salvage the theory is problematic.

Against this landscape of frameworks that define topics as a core part of proposition structure and argue for its cognitive nature, some approaches in the 1990s questioned the validity of the notion and its necessity (Tomlin 1995; Roberts 1996; Gómez-González 1997). The arguments for the latter views are presented in Section 4. However, it seems that the debate has largely settled down since – without answering the concerns raised by these views. Instead, there has been a sustained interest in language-specific analyses of topicality, topic-markers, refined examination of topic properties, and the typology of topic expression up to these days (e.g. Maslova & Bernini 2006; Vydrina 2020; Wälchli 2022 among many others), with occasional book-sized discussions on the definition, types, and analysis of the notion (Endriss 2009). As we shall see in the following, corpus-based investigations of topic-like markers and structures suggest that using a unifying definition of topic risks to overinterpret or under-interpret the data.

4. Linguistic expression of topic core traits – or, what is marked?

On par with other pragmatic categories, such as accessibility or focus, topicality is regarded across the abovementioned approaches as a universal property of cognition or discourse. It is not a linguistic category or a grammatical notion, but its prominent and universal role in human communication suggests that languages are likely to

evolve means for its expression (e.g. Krifka & Musan 2012: 5). The literature on the *linguistic expression of topical information* (often not distinguished properly from the information itself, and similarly called topic) in specific languages is abundant, and a broad range of diverse language-specific markers and constructions have been analyzed as topic-marking (e.g. van der Wal 2015). However, in none of the known cases does the marking map on topicality directly, so that all and only the topical constituents are flagged accordingly. Indeed, some argue that the relationship between information structure and grammar as indirect, with grammatical markers merely cuing the pragmatic categories (Féry 2007).

Early efficiency-based considerations assumed that since the primary goal of an utterance is to communicate new information, it is the constituents that violate this expectation and provide no update that should be flagged (McNally 1998). Indeed, this assumption fits languages where given information tends to remain unexpressed ("radical pro-drop" in some frameworks), as is the case in the East-Asian Sprachbund (Tao 1996; Matsumoto 2003). At first sight, this view appears to violate the situation in well-studied Western languages, such as English or German (deu, Indo-European, Germanic), where established topics (i.e. given referents, whose topical status is predictable) are expressed by reduced, poorly articulated constituents (e.g. deaccented pronouns), while new information is marked by an accent (Baumann & Schumacher 2011). However, in line with this view, the de-accenting can be analyzed as the dedicated marking of established topicality, with the accent being the default marking when this is not the case (Lambrecht 1994: 99; Schwarzschild 1999). We are not aware of proposals for a consistent marking of established topics otherwise.

Explicit marking typically applies to specific kinds of topics within designated discourse conditions. The conditions and the functions in the discourse associated with the marking are often so specific, that some approaches revise the goals of their study to an exploration of the discourse functions of the specific constructions, such as left detachment, assuming that those are "not necessarily related to the theme–rheme dichotomy" (Netz & Kuzar 2007: 307). The strategies ascribed the topic-marking role are commonly morphological, syntactic, and in some languages prosodic. Commonly, a few options are combined: for example, a relevant morphologically or prosodically marked constituent is additionally expected to occur in the clause-initial position, already associated with topics.

Syntactic position is a cross-linguistically salient characteristic associated with topicality or attributed the topic-marking role. An initial, pre-comment field – if filled

– was linked directly to the topic-expressing function in Mandarin, and to the clause-final position in Tagalog (tgl, Austronesian, Malayo-Polynesian) (LaPolla 2019). While the former option represents a typologically nearly omnipresent tendency, the latter is rather exceptional (cf. also Mithun 1984). In languages with a flexible constituent order, such as Slavonic or German (Firbas 1992), the initial field is also associated with the backgrounding, frame-setting, and topical function. Similar characteristics are also applicable to languages with an otherwise strict constituent order, as is well studied for English (Birner & Ward 1998). Moreover, a topicality-based analysis is also implemented for constituent order more generally, for example accounting for the OV-order in Russian (rus, Indo-European, Slavic) instead of the more frequent VO, including cases where the initial slot is already filled by a topical subject (Dyakonova 2009: 99).

However, closer inspection reveals that topicality is insufficient to describe the observed distributions of the constituent order. For example, the combination of givenness, definiteness, and pronominality – analyzed jointly as evidence for topicality – accounts for around 60% of fronted objects in written Swedish (swe, Indo-European, Germanic) (Hörberg 2018). In the rest of the cases, the structure can have other and diverse discourse effects. The final interpretation can be driven directly by the assessment of referents' pragmatic status, combined with language-specific discourse structuring options. Consequently, the aboutness interpretation can actually be a byproduct of the initial position, rather than the factor underlying this choice. Similarly, the OV order in Russian is better accounted for by accessibility, with topical-like interpretations being merely a potential byproduct thereof (Seržant et al. *forth.*). Furthermore, the initial subject position in English, closely associated with topicality, was proposed to reflect directly the basic cognitive factor of attention (Tomlin 1995), with topicality being an epiphenomenal interpretive product unneeded for the analysis.

Similar questions apply for left detached structures, such as left dislocation and hanging topics, commonly regarded as topicalizing constructions (Maslova & Bernini 2006). In left dislocation, a clause-external constituent is followed by a clause that cross-refers to the same entity, for example by a resumptive pronouns, as in (9). Hanging topics have no syntactic cross-reference, and the initial constituent provides an interpretation frame for the clause, as in (10).

- (9) (Haselow 2017: 108)
 Your friend, here, does she, doodle a lot?
- (10) (Lambrecht 1994: 193)
 Other languages, you don't just have straight tones like that.

Various proposals see such structures as announcing the topic for the subsequent proposition, and as revealing fine aspects of cognitive information processing. In particular, they are analyzed as evidence for the limitations of the cognitive abilities to activate a new referent and use it as the topic simultaneously (Lambrecht 1994: 185; Gregory & Michaelis 2001; Kerr 2014). However, since Prince (1998) the research explores the idea that the structures have in fact designated discourse-structuring functions. The latter view was more recently developed in textual and interactional approaches, as studies identify a range of functions belonging to the domains of relevance, content-management (contrast, listing),interaction (turntaking, sequence organization), and specific actions (assessment, disagreement) (Pekarek-Doehler & De Stefani & Horlacher 2015 for French, Cimmino 2023 for Italian and English).

Furthermore, Ozerov (2024) proposes for spontaneous Hebrew (heb, Afro-Asiatic, Semitic) that it is the detached NP alone that performs the relevant functions: it is the locus of turn-taking where cut offs typically occur, it can be used separately for attention alignment before the rest of the discourse is planned, or it can recycle previous discourse for creating discourse cohesion. Only a third of such detached NPs are continued with a clause, suggesting that it is erroneous to select these as a conventionalized construction, while in fact they are compositional constructs of an NP and the clause, each performing a separate function. Consequently, although the initial NPs typically have a vague aboutness interpretation with respect to the optional subsequent clause, this is again a byproduct of the relevance principle, rather than an underlying motivation for the construction.

Another marking strategy associated with topical constituents is so called "topical" particles. Particularly abundant research on this phenomenon is available for Korean (kor, Koreanic) and Japanese (jpn, Japonic) (Lee 2007; Vermeulen 2009; Shimojo 2016; Nakagawa 2020), but they are widespread in many other Asian languages (Boro 2021) and cross-linguistically (Wälchli 2022). The marked constituents are not just topics, but a special kind thereof, and a precise analysis of the marking remains

elusive even for well-studied languages. For example, Japanese *wa* marks framesetters of various kinds, semi-active, inferable (as in 11) or contrastive topics (Nakagawa 2020: 124), as well as established topics in discourse shifts (Shimojo 2016).

(11) Japanese (Nakagawa 2020: 108)

'I guess this is the same for all kinds of jobs, people might call it "dream and reality",'

gyappu-wa kanari ari-masi-te

gap-wa very exist-PLT-and

'There is a gap (between what I expected and reality).'

Moreover, although 'gap' in (11) obtains a topical reading thanks to its initial position and the marking, the English translation is remarkably a thetic, all-focus statement, with the same information consequently being a part of focus (cf. also Tomioka 2010). This cross-linguistic discrepancy goes against the typical assumption that information structure is a universal property of discourse merely expressed by language-specific means. Addressing the actual distribution of the markers in natural language use prompted some approaches to shift away from their uniform categorization as 'topical' that "fall[s] ... short of representing the dynamic and methodic ways in which they are actually used by the participants for a real-time management of ... social interaction" (Morita & K. Kim 2022). Japanese and Korean "topic"-markers are reanalyzed in such studies as linked directly to attention (I. Kim 2015), as categorization means signalling expectation shifts (Tanaka 2015; K. Kim 2021), and as performing specific discourse tasks in defined contexts (Jin & Takagi 2021; Kwon & Rim & K. Kim 2021).

Morphosyntactic marking of topical constituents by dedicated constructions bears some resemblance to the particle marking strategy. This is a strategy known from well-studied languages, including English, and from typologically diverse languages (Abubakari 2021). In English, for example, constructions such as *As for...* and *Concerning...* are used to introduce new topics (cf. also Repp 2011 for German). The former structure is commonly used as a topicality test, although its function is more specific than topic-marking (Reinhart 1981) and appears to be a specific kind of a discourse structuring device, namely a discourse-shift to address an issue that forms a set with previously addressed issues (Jaeger & Oshima 2002).

As for intonational marking of topics, in addition to the deaccenting discussed above, there was a substantial discussion of a special type of final rises ("B-accents"; L* + H L-H%) as markers of contrastive topics in English (Büring 1997, 1999; Constant 2014). The claims were partly corroborated for spoken German, although the distinction between a new topic accent and the contrastive topic accent was not always straightforward (Riester & Schröer & Baumann 2020). In addition, this intonational pattern and topical structures classically devised as contrastive topic devices is found not only with contrastive topics, but more broadly with contrast foreshadowing, including pairs of contrasted propositions and discourse structuring markers of the kind *on the one hand... on the other hand* (Barth-Weingarten 2009), and contrast on the focal part of the utterance (Cimmino 2024).

In summary, there is a vast array of devices associated with topic marking cross-linguistically. Nonetheless, no known marker maps directly on the topical function or a type thereof. Instead, upon closer examination, the factors driving the distribution of the marking are linked to specific pragmatic factors and discourse structuring functions. Although all the marked constituents exhibit the "aboutness" interpretation, this falls short of characterizing the actual function and usage. The "aboutness" may instead be a byproduct of the identified function, rather than the underlying reason for the marking. In fact, it has been acknowledged but largely overlooked that topicality encompasses a cluster of factors (Jacobs 2001), and thus, the application of a unified concept to a large set of heterogenous morphosyntactic constructions must be questioned (Gómez-González 1997). These concerns can recall the recent discussions on the conceptual and operational drawbacks of universally defined linguistic categories (Haspelmath 2010; Bickel 2015), resulting in recent renewed debate on the validity of information structural concepts, including topicality (Ozerov 2021).

5. The contributions in this article collection

The six papers collected in this special issue offer empirical analysis of topic markers or topic related constructions, from which a theoretical reflection on the very concept of topic can spring. In line with the main aim of the special issue, the overall goal of each chapter is to disentangle the actual functions of topic-related markers and the discourse nature of topic related phenomena, which have been conflated under the notion of topic in the literature so far. The phenomena taken into account, the

language of study, and the analytical approach adopted in each chapter vary, differently contributing to such goal. Topic markers in American Sign Language, classically described as a topic-prominent language, are analyzed in a corpus-based and discourse perspective allowing for an in-depth reflection on the concept of topic (Janzen). A prosodic-functional approach is adopted in the distinction of allocutives and topics in spontaneous Italian speech, also providing an opportunity to critically examine the category of topic and how it is defined (Cresti). The same prosodicfunctional approach is exploited to investigate quantitative and qualitative aspects of topics in a new spontaneous corpus of Mandarin Chinese (Luo). Left dislocation, a classically topic-related construction, is investigated contrastively in spoken Italian, English and Spanish (Cimmino-Saccone) and in an underexplored Trans-Himalayan (Tibeto-Burman) language, Anal Naga (Ozerov), adopting a textual and interactional approach, respectively. Finally, inversion, another structure generally associated with topic-marking, is explored in written English (Dorgeloh), gaining a discourse understating of the phenomenon with implications for the analysis of the information structure of the construction. Irrespective of the language, phenomenon or methodology selected, the analyses provide several starting points for reflection, which, however, can by no means exhaust the subject of disentangling topicality effects. In what follows, details on each paper's main objective and results are provided.

Janzen's contribution focuses on the concept of topic in American Sign Language (ASL). Drawing on examples from a corpus of nine hours of video-recorded dialogic ASL conversations, he argues that a categorical definition of topic in ASL is either not tenable or at least requires significant re-evaluation. The data shows that, while raised eyebrows and backward head tilt are prototypical signals associated with topicality, the dialogic corpus reveals a high degree of variation. Moreover, Janzen suggests that topic marking in ASL may function more as a mechanism for topic shifting, rather than the classical topic-maintaining function. This claim is supported by the observation that topic-marked elements in ASL are those less likely to introduce recoverable or already topical information for the addressee. Importantly, the corpus data further indicate that topic-marked elements are not always characterized by classical topical traits such as givenness, aboutness, emphasis, or even subjecthood. This raises important questions about what parameters are truly core to defining topic as a linguistic category. In conclusion, Janzen hypothesizes that the category of topic may be a "theoretical holdover", and proposes that in ASL, topic-marked elements

may be better analyzed as reference points from which the comment or predication is interpreted (in line with Langacker 2013). In line with the aims of this volume, he advocates for a bottom-up, discourse-centered approach to language description—one that avoids broad generalizations in favor of close, language-specific analysis.

The article by Cresti provides a rich discussion on the category of topic and its definition(s), starting from its comparison to the information unit of Allocutive in Italian spontaneous speech, within the prosodic-functional framework of Language into Act Theory (L-Act). As a peculiar type of vocative, the distribution and lexical filling of Allocutives partially overlaps with the Topic Information Unit, since both can occur before the main illocutionary unit of Comment and can be syntactically realized by bare and proper nouns. Therefore, the two units can be found in the same lexical sequences and word order, which can result in interpretive ambiguity, if prosody and function are not taken into consideration. Based on evidence from a pragmatically annotated corpus, the study contends that the distinction between allocutives and topics is precisely prosodic and functional. From a prosodic point of view, allocutives are poorly perceptually prominent with respect to topics, since they are defocused, while the latter constitute a prefix to a focused unit. From a functional point of view, allocutives are defined as devices of social/empathic cohesion and attention reactivation, while the topic information unit is produced by the speaker as a reference to the addressee for their illocutionary action(s). Moreover, while topics provide an identifiable reference for the addresses, allocutives have a designatory reading. In conclusion, the comparison between the two information units allows the topic definitory traits to be reduced to prosodic and functional aspects. Cresti clarifies that in the model she developed (Language into Act Theory) the topic is disentangled by epiphenomenal characteristics such as givenness, animacy, definiteness, presupposition, relevance, aboutness, and communicative dynamism.

In her contribution, dedicated to inversion in American written English, Dorgeloh reflects on the very concept of topicality in relationship with discourse and genre. Since inversions are generally described as left marked structures highlighting an aboutness topic, the author chooses an unbiased empirical approach to put this assumption to test. Starting with a generally accepted syntactic definition of inversion, the analysis of more than 500 occurrences found in the COCA corpus is conducted with two main points of interest. First, the role of inversion in discourse is accounted for looking at the topic persistence of the NP constituents in the structures rather than at its information packaging. Second, the possible (con)textual variation

in the use is considered, looking at the actual behaviour of the structures in academic vs. fiction genres. The results show that the sentence-final postposed subject rather than the one of the fronted verbal complements is more likely to become discourse topic in all types of inversions, hinting at an understanding of the structure's discourse role as a right rather than a left marked structure. Moreover, differences in the syntactic realization as well as in the nature of the semantic relation between persisting referents can be observed in the two contrasted discourse genres, confirming that narrative texts possess a substantial referential continuity, while academic texts typically build on more implicit semantic relations. All in all, the chapter provides a fine-grained look at topicality effects, arguing for a more complex view in which topic persistence is understood in terms of discourse topicality, the nature of which varies at least across genres.

Ozerov's study is devoted to Left Dislocations (LD), which are investigated in a spontaneous speech multimedia corpus of Anal Naga, an underexplored Trans-Himalayan language spoken in India-Myanmar border. Discarding the pre-empirical assumption that LD-structures form a syntactic construction, the chapter separately focuses on instantiation of Detached NPs, that is, NPs that initiate a syntactic structure and terminate the Intonation Unit. Anal Naga is verb-final language, and NPs rarely occur post-verbally; moreover, the expression of contextually recoverable referents is optional, and updating NPs tend to appear with a copula. Based not only on syntactic, prosodic and pragmatic traits, but also on interactional and multimodal aspects of referent introduction, the study provides evidence that detached NPs firstly and foremost perform a local interactional task, while the continuation has not been planned yet. The detachment does not arise in attention-aligning cases as a means for expressing topicality; it is better analyzed through the notion of attention combined with relevance and interactional principles. Detached NPs alone are exploited for turn-taking or alignment of joint attention on a referent, completing the interactional move, irrespective of the continuation. The topicality effects of aboutness or framesetting are thus argued to be epiphenomenal and observed only in static retrospective examination of the data. In fact, they are radically deemed unneeded for the analysis and irrelevant for the dynamic planning and processing of interactional discourse.

Cimmino & Saccone account for LD's discourse functions in spoken Italian, English and Spanish. Relying on a corpus-based and textual approach, they set out to describe LD's functions looking and the interplay between prosody, syntax, information structure, and discourse. The starting point for this analysis is a syntactic definition

of LD, which allows collecting real occurrences in spoken Italian, English and Spanish devoid of functional biases. The information structural analysis is based on a pragmatic definition of topic, as the field of application of the utterance illocutionary force (in line with Cresti & Moneglia 2018). The corpora used for each language are pragmatically annotated for their prosodic-information traits, allowing to observe the presence/absence of Topic Units. This datum is also observed in interaction with the architecture of the text, that is, precisely on its topic progression and logical organization. The results show that there is no systematic correspondence between the prosodic and syntactic form of the constructions and their information traits or text organization. Therefore, the discourse functions of LD cannot be altogether reconducted to an overarching topic-marking one. In fact, the functions vary crosslinguistically and, especially in semi-free word order languages such as Italian and Spanish, they can be devoid of a topic-comment information partition or be used to perform functions unrelated to topic progression. Based on these findings, the chapter disentangles the discourse functions of LDs from the concept of topic, arguing that LDs are better understood as prominence cues used by speakers to signal a disruption in the ongoing discourse, the nature of this discourse prominence being dynamic and evolving as the text unfolds.

Luo presents a quantitative and qualitative description of the Topic Information Unit in Mandarin Chinese, based on Cresti's model for spontaneous speech segmentation. The data analysed in the chapter are part of a new spontaneous corpus of spoken Mandarin Chinese (C-ORAL-ZHONG). As in Cresti's contribution, topic is defined as a prosodically realized field of application of the illocutionary force. The corpus-based inquiry highlights prosodic, morphosyntactic, semantic and functional patterns and trends of Mandarin Chinese topics in spontaneous speech, partially corroborating findings from previous literature. The functionally identified Topic Information Unit consistently appears to be realized through a prefix unit, in line with cross-linguistic investigations conducted on Italian, Spanish, Brazilian Portuguese, and American English. Pauses and resets also align with previous research, while the characterization of Sentence Final Particles, used to mark non-final prosodic breaks in Mandarin Chinese, such as a 啊, ya呀, ne呢, and ba吧 are related by Luo to the intimacy of the speakers. In the examined corpus, the quantitative occurrence of topics is approximately 10% higher than in Italian, possibly supporting the topicprominent nature of Chinese. The lexical fillings appear to be mostly referential, as expected from previous studies and classical theoretical approaches to topic

definition; however, modal topics also occur, corresponding to hypothetical and temporal/hypothetical clauses, modal adverbials, adjectival phrases used to express the speaker's attitude and points of view. Finally, the data allows to reject the systematic correspondence between givenness and topicality, contributing to the volume's aim of distinguishing the core from the epiphenomenal traits of topics.

6. Prospects for Future Research

The discussion on marking (§4) and on the direction of our collection contributions (§5) suggests a discrepancy between linguistic marking and the pragmatic notion of topic. This situation clearly does not disqualify the theoretical notion of topic or its validity. It is not unexpected that it is not expressed in the language by directly dedicated means but rather cued indirectly by other grammatical categories (Féry 2007). However, as the research commonly does use types of topicality as the endpoint of the analysis and explanation of the linguistic structure, the situation suggests a problem in the analytic procedure. "Topical" markers briefly surveyed above (§3) are directly related to various discourse-structuring, pragmatic, and utterance planning factors, whose aspects and linguistic expression are often poorly understood. Instead of exploring the dedicated factors that link to the examined marker directly, the research often opts for the indirectly related interpretation of topicality as the analytic endpoint. Despite being a handy label for some of the effects associated with the marker, this solution both leaves the actual factors understudied, and provides an analysis that falls short of addressing the examined phenomenon. Moreover, the effects can be entirely epiphenomenal of the actual marking, and stem for example from the clause-initial position of the studied forms (Gómez-González 1997: 137).

Indeed, the idea that topicality as a uniform and universal concept is ill-defined and unneeded for pragmatic or linguistic analysis is not new in research (Roberts 1996). Jacobs (2001) attempts to disentangle the notion into four separate, independently functional and marked dimensions: information separation, predication, addressation, and frame-setting. The array of domains and factors that motivate "topic"-markers cross-linguistically surveyed above suggests that this partition is too coarse and misses various domains related to discourse-structuring and planning. From the cognitive perspective, Tomlin's (1997) and follow up experiments (Myachykov et al. 2011) link linguistic marking associated with topicality (namely the subject role in English and the initial position in other

Linguistic Typology at the Crossroads 5-1 (2025): 1-27

languages) directly to the notion of attention. Although attention was evoked in some

definitions of topic (Erteschik-Shir & Lappin 1979; Engberg-Pedersen 2011), Tomlin's

analysis links linguistic marking and attention directly, dispensing with the need for

intermediate levels of cognitive representation. Instead of channelling the attention-

directing instruction to the higher-level notion of topicality, interactants can orient at

this communicative instruction directly, similarly to the range of other instructions

epiphenomenally characterized by aboutness interpretations.

The remaining question is whether topicality is required as a typological notion

(Däbritz 2023). Indeed, in the current research context, it appears to provide a useful

label for phenomena that otherwise cannot be generalized. We do not yet have

universally acknowledged or commonly shared tools to approach pragmatic or

discourse typology, but to a large degree this is because we gloss over the relevant

categories as 'topics' without producing their coherent analysis. With this volume, we

advocate the idea that once the analysis advances beyond this interpretive level, it will be

possible to break this uniform label into diverse categories of discourse-shifters, attention-

centerers, givenness markers etc.; we will then be in a position to produce more

accurate typological generalizations. It is not impossible that specific kinds of frame-

setters or attention-centering at relevant referents will come up as cross-linguistically

recurrent discourse phenomena with dedicated marking strategies, thus corroborating

the current intuitions about their due status in linguistic theory and analysis. But this

remains to be shown by future research.

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Abbreviations

ASL = American Sign Language

NP = noun phrase

LD = left dislocation

PLT = polatiness marker

19

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Topicality and the problem of "topic" in American Sign Language discourse

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Abstract

American Sign Language (ASL) has been characterized as a topic-comment or as a topic-prominent language. But studies based on actual usage reveal a great deal of variation, leading to the proposal here that the very idea of a definable category of topic should be re-examined. Janzen (2007) proposes a topicality hierarchy for constructions in ASL, finding that the higher degree of topicality an expression has, the less likely it would be found as a marked topic. Only expressions at the lowest levels of the topicality scale occur as marked topics in topic-comment constructions. When the topic content is nominal, marked topic phrases are typically explicit noun phrases or full clauses. Relatedly, marked topics indicate topic shift rather than topic maintenance. In line with Langacker's (2008, 2013) analysis of topic expressions as reference-point constructions, topics in ASL are subjectively chosen by signers as a pragmatic framing mechanism, given that the signer might have multiple viable reference points from which to choose. It is also an intersubjective choice, taking into account assumptions regarding the addressee's knowledge store. If "topic" is a language-specific notion, characterizing topic as a cross-linguistic category may be problematic. It is within this context that "topic" is explored in this study of ASL.

Keywords: identifiability; intersubjectivity; reference point; topic marking; topic shift; topicality hierarchy.

1. Introduction¹

American Sign Language (ASL) has long been understood as having frequent "topic-comment" constructions (Liddell 1980; Valli & Lucas 1992), and has been characterized as a topic-comment language (e.g., Ingram 1978; McIntire 1982; Janzen 1998, 1999), or as a topic-prominent language typologically (Slobin 2006). Early accounts of ASL treat topic as categorical (e.g., Friedman 1976; Liddell 1980, 2003; Valli & Lucas 1992), meaning that a single, unified category of topic constructions is understood, characterized by specific obligatory markers structurally, and with a singular purpose, that is, to "front" or left-dislocate some particular sentence element (Lillo-Martin 1991; see also Neidle et al. 2000). Most early work on topic in ASL focused solely on structural properties, without much consideration of discourse or pragmatic functions. An example can be taken from Valli, Lucas, and Mulrooney (2005: 131):

(1) [HOMEWORK]-TOP, PRO.1 DETEST²

'Homework, I detest it/As for homework, I detest it.'

The entirety of Valli et al.'s (2005: 131) description of "topicalization" is that topicalization "occurs in ASL when the object of the sentence can be moved to the front of the sentence. ... The object that is moved to the front of the sentence and is topicalized is marked by particular nonmanual signals, which include raised eyebrows and a head tilt, and possibly a short pause." They include no discussion of functionality, discourse motivations, or discourse effects. Janzen's (1998) study on topic in ASL texts finds that, in actuality, objects "fronted" as topics constitute only a small percentage of topic-comment constructions (9.7%), suggesting that functions other than object fronting may be more characteristic of topic marking in naturalistic ASL discourse.

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¹ My appreciation goes to the two anonymous reviewers whose detailed and helpful comments have made this a better paper. Thanks too to Pavel Ozerov and Doriana Cimmino for their many insightful suggestions.

² ASL signs are represented by English word glosses, which should be considered approximations of meanings – sometimes it is a reasonable match but often it is less so, and it should not be assumed that any categorization or grammatical properties of the English words apply to ASL. It is but one way to represent ASL on the page. See the notation key for details. Most translations of ASL discourse examples are not transliterations, but conventional and grammatical English phrasing.

The construction in (1) is without question grammatical, but in functional terms, consistent with pragmatic accounts of given versus new information (e.g., Halliday 1967; Li & Thompson 1976, 1981; Haiman 1978; Givón 1984; Prince 1981), it is framed only as a possible construction, and says nothing regarding under what discourse circumstances it may be chosen by the signer, nor the construal (Langacker 1991) conceptualized by the signer at the moment of expression. In a small corpus based study, Janzen's (1998) finding that topic-marked objects were rare is possibly because verbobject combinations more frequently constitute new, or focused, information, thus are more commonly found in comment phrases rather than marked topic phrases.

More recent discourse-based studies reveal that there is a great deal of variation within the presumed category of "topic" in ASL, leading to the proposal here that the very idea of a definable category of topic is in need of re-examination. Ideally, this merits a typological study cross-linguistically, but in this article I examine topic and topicality within just one language, ASL, leaving cross-linguistic comparisons for later study. I do, however, bring several relevant examples from other languages into the discussion below.

In what follows, in section 2 I discuss topic from functional and cognitive linguistics frameworks, and in section 3, look at some structural attributes of topic within ASL utterances. Section 4 next gives a number of examples of the most basic types of topic constructions found in ASL. Section 5 examines the discourse functions of topic in ASL. In section 6 I suggest a number of problems with the ideas of topic and topicality from a usage perspective that are specific to ASL, including discussion of a topicality hierarchy of various syntactic, morphological, and grammatical items, degrees of givenness, and differences between sentence-level and discourse-level topics. Throughout sections 2 – 6 I retain the term "topic" for the examples under discussion, and in particular their notation, as this is the term used widely in the literature for these constructions. Section 7 offers some conclusions, and suggests that an appropriate alternate analysis can be found in Langacker's (1991, 2008, 2013) notion of reference point.

2. Functional/cognitive approaches to topic

Givón (1984) proposes that propositions in successful discourse must have a balance between "old" information (that is, information identifiable to interlocutors), and "new"

information. This is the case because readily identifiable information is crucial for the addressee to ground what is new. Too much old information, however, results in discourse that is redundant. Too much new information, on the other hand, leads to discourse that is incoherent. In topic-comment constructions, this balance might seem neatly divided: first the addressee encounters a phrase (or clause) that is identifiable information, followed by a phrase (or clause) that contains new information that is somehow linked to the content of the topic phrase. But this may be too simplistic – in some of the ASL examples below, what constitutes topic versus comment, and identifiable versus new information, doesn't always neatly coincide.

One factor has to do with what constitutes identifiable information. Chafe (1976, 1994) introduces the idea that identifiability is based on what is within the interlocutor's conscious awareness at a given moment. Information within an intonation unit, the unit Chafe considers to be the primary type of constituent in discourse, may be active, semiactive, or inactive. More specifically, according to Chafe, active information is what a speaker assumes to be in the consciousness of the addressee at the moment the utterance is articulated, while new information the speaker assumes is being introduced into the addressee's consciousness. Information that is semiactive is not quite fully active (i.e., is not immediately accessible without effort), but which can be recalled or brought forward when cued by some particular related phrasing. Chafe suggests that the conscious mind is dynamic, and while he discusses the three categories of active, semiactive, and inactive, we might consider these on a continuum, especially because the category of semiactive seems to imply a wide range of possibilities both in terms of the degree of semiactiveness and the amount of cuing it might take to move an item from semiactive to active. Prince's (1981) taxonomy of "assumed familiarity" in some ways aligns with Chafe's model, where items—in Prince's case, noun phrases (NPs)—may be newly introduced into the discourse, evoked from the text or situation, or inferable in some way.

An "aboutness" view of topic is given in Hornby (1971: 1976; italics in original) as such: "The part of the sentence which constitutes what the speaker is talking about is being called the *topic* of the sentence in the present work. The rest of the sentence, the *comment*, provides new information about the topic." Similarly, Lambrecht (1994: 118; small caps in original) defines topic as "the thing which the proposition expressed by the sentence is ABOUT". The topic is "the already established 'matter of current concern' about

which new information is ADDED in an utterance" (Lambrecht 1994: 150, small caps in original; see also Li & Thompson 1981; Reinhart 1982; Dahlstrom 1995). Lambrecht notes that how this is manifest in different languages can be quite variable, from being formally marked to no specific grammatical marking, but important to note is how he defines topic.

Within the theory of Cognitive Grammar, Langacker (1991, 2008, 2013) introduces the notion of reference point constructions, which he diagrams as Figure 1.

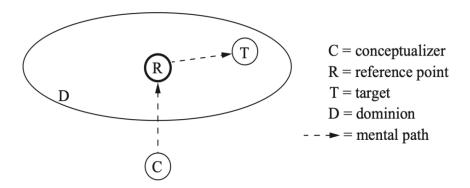


Figure 1: Reference points. From Langacker 2013: 418 (his Figure 2).

Reference point constructions include categories such as possessives and topic constructions. Langacker's premise is that a speaker invokes "the conception of one entity for purposes of establishing mental contact with another, i.e., to single it out for individual conscious awareness" (Langacker 2013: 417). In Figure 1 the conceptualizer (C) gains mental access to a target (T) through a reference point (R). In a possessive phrase such as *his father*, C understands *father* only with reference to R. For the category of topic, it is "a salient entity evoked for purposes of mentally accessing another" (Langacker 2013: 436). Here the domain (D) is important as it is the class of potential targets within which T resides. We will look at this in more detail in section 7, once a number of ASL examples have been examined.

Here we contrast earlier conceptualizations of topic in ASL (e.g., Liddell 1980; McIntire 1982; Janzen 1995a) which suggest category-like status, with more recent discourse data-driven analyses where such a categorial status is less certain. These various views of topic are evaluated against particular discourse-based examples of topic constructions in ASL in the sections that follow.

3. Where is "topic" positioned within the clause?

In languages with marked topic constructions, which are typically thought of as "topic-comment" languages (see, for example, Li & Thompson 1976; Chafe 1976), an iconic constituent order is topic-first, comment-second, following the adage that old information iconically precedes new information (Haiman 1978; Givón 1985).³ Li and Thompson note that the relationship between topic and comment does not equate to that of subject and predicate, with the implication that topic in these languages does not equate to subject. This will be evident in the discussion of topic in ASL below.

ASL clause structure has been examined from various linguistic theoretical (Friedman frameworks, including structuralism 1976; Liddell 1980), formalist/government-binding theory (Aarons et al. 1992, 1994, 1995; Neidle et al. 2000; Sandler & Lillo-Martin 2006), functionalism/pragmatics (McIntire 1982; Janzen 1998, 1999), and cognitive linguistics (Liddell 2003; Janzen 2017, 2018; Shaffer 2004).⁴ In past research on topic in ASL, topic phrases are prototypically marked by raised eyebrows concomitant with the entire phrase, and a backward head tilt, often followed by a pause, with the eyebrows and head returning to a more neutral position once the signer begins the comment phrase. From a grammaticalization perspective, Janzen (1998, 1999) analyses marked topics in ASL as having grammaticalized from yes/no questions, following Haiman (1978), suggesting a change from interactional to grammatical in the sense that a yes/no question (eyebrows raised, forward head tilt) invites a response whereas a similarly marked topic phrase (eyebrows raised, backward head tilt) marks shared information.

Janzen notes that yes/no questions necessarily include significant assumed shared information, which means they have much in common with topic phrases (Li & Thompson 1976; Haiman 1978; Geluykens 1993) and so are commonly noted as grammatical precursors to topics diachronically. Interestingly, the difference in head tilt in ASL yes/no questions and topics is gesturally iconic in that the forward head tilt of a yes/no question may be a gestural invitation to respond, whereas the backward head tilt of a marked topic may signal a (grammaticalized) topic function that does not invite or

³ Although, other orders are attested, for example sentence-final topics in Tagalog. See, for example, Naylor (1975).

⁴ These citations are of course representational; numerous additional works on ASL and a host of other signed languages fall within these theoretical frameworks.

require a response from the addressee.⁵ The marked topic constructions analyzed in the monologic discourse data in Janzen (1998) suggest that in a non-interactive discourse context, the marked topic phrases (broadly resembling yes/no questions except in the direction of the head tilt) are emancipated from any interactive communicative intent. Marked topic constructions occurred in the monologic data in Janzen's (1998, 1999) study, as they did in a later corpus of dialogic ASL discourse video recorded in 2000.⁶

A frequency comparison between topics in the two datasets has not been done, however. There are some differences between the two, in that in the monologic data, many of the topic constructions appeared to follow what had been described previously, at least structurally, along with the canonical facial and head markers of raised eyebrows and head tilt. In the dialogic data there was more variation structurally, which may be accounted for because the signers were engaged in face-to-face discourse. One example is that in face-to-face, spontaneous discourse, signers at times negotiated a topic in a sequence beginning with an actual yes/no question asking whether the addressee knew some referent or idea, which is a common discourse strategy across languages (see, for example, Ozerov 2021). If the addressee's response was positive (e.g., often signalled by a quick head nod), the signer continued. But if the addressee signalled that they did not know or were unsure, the signer began an explanatory or contextualizing sequence to bring the addressee up to speed. The signer might then repeat the original phrase, this time not as a question to be answered, but as a topic construction, followed by a comment phrase. Further examples of variation taken from this dataset are discussed in sections that follow.

While topic marking has been extensively studied for ASL, the significance of the traditionally acknowledged markers may be suspect, as there is some variability in the degree to which these facial and head markers are produced in natural discourse, suggesting that they are gradient, for example the eyebrows fully raised or only slightly if at all, or the head markedly tilted back or almost imperceptibly (or not at all, or even tilted slightly forward). Also, it appears that almost any discourse content can be topic-marked, such as pronouns, classifier constructions, noun phrases, and even whole clauses, along with time adverbials and some discourse or grammatical markers (for example the discourse marker HAPPEN: see Anible & Occhino-Kehoe 2015).

⁵ Although see example (2) and the ensuing discussion in section 4 below.

⁶ This dataset comprises approximately 9 hours of video-recorded ASL dialogic conversations between deaf participants and a deaf research assistant.

When viewed through an interactional-pragmatic lens, a marked topic phrase must qualify as content that is assumed by the signer to be identifiable (or shared) as known information for both the signer and addressee, thus is a marker of intersubjectivity (Janzen & Shaffer 2008, 2013).

4. Some basic examples of topic in ASL

We begin with a number of examples of marked topics in ASL utterances taken from the dataset in Janzen (1998) and the conversational ASL corpus recorded at the University of Manitoba in 2000, some of which are reported in Janzen (2017). In example (2), facial and head topic markers, and the more neutral head position for the comment, are shown in Figure 2.⁷

(2) [TOMORROW NIGHT]-TOP WORK+ 'Tomorrow evening I am working.' (Janzen 2017: 522, his example 1)

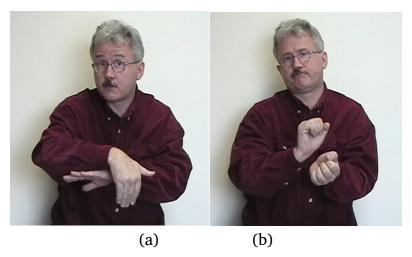


Figure 2: (a) topic-marked phrase; (b) return to a neutral position for an assertion as the comment. From Janzen (2017: 523).

from the addressee, as would be the case for a yes/no question.

⁷ I am beginning with this example because of its simplicity and clarity, although it is a constructed sentence not part of a natural discourse segment. It also gives us a first look at structural variation, as the signer's head tilts forward slightly, and not back, shown in Figure 2a. Nonetheless, the facial and head markings clearly distinguish the topic and comment phrases, and the signer is not looking for a response

(3) [L-A-K-E TOWN_b AREA(in front of) L-A-K-E]-TOP [pause]-NOD WOW I-C-E CL:B(thick) CAN SNOWMOBILE S-N-O-W-M-O-B-I-L-E pause 'at the lake near the town, the ice was thick enough to go snowmobiling' (Janzen 1998: 152, his example 12a)

In examples (2) and (3), an element that is not the subject is marked as topic. In the case of (2) it is a temporal phrase, an element common to discourse participants as something readily identifiable, and in (3) it is a locational NP, which at this point in the narrative discourse has been made identifiable to the addressee.

Many marked topics in ASL are NPs, some of which can be construed as the subject of the verb as in (4), but this is not always the case. In (5), the topic NP and subject third-person pronoun (PRO.3) that follows in the comment refer to the same agent; grammatically they are both present in this utterance as separate syntactic elements.

- (4) [FATHER]-TOP JOIN_a THEATRE
 'His father joined the theatre.'
 (Janzen 1998: 185, his example 35)
- (5) [OTHER BOY]-TOP PRO.3 RESPONSIBLE, DRIVE GOOD, NOT DRINK++

 'Another guy, who was responsible and a good driver, and who hadn't been drinking...'

 (Janzen 1998: 103, his example 26a)
- (6) [WORLD aCL:C(2h)(sphere)]-TOP MANY DIFFERENT + LANGUAGES PRO.3a + + +
 'The world, many different languages (are) there.'
 'There are many different languages in all parts of the world.'
 (Janzen 1998: 133, his example 1)

In (6) the topic NP is not the syntactic subject of the sentence and as well, this is a sentence without an overt verb at all. The first translation is closer to a transliteration that reflects this, with 'many different languages' being the nominal subject.

Still other topic phrases are full clauses as in (7) and (8). The marked topic phrase in (7) includes a first-person subject pronoun, followed by a different subject NP in the

comment, PRO.1 MOTHER⁸ ('my mother'). Similar to the examples above, it is the case that the signer has chosen to mark as topic some element or referent assumed to be identifiable by the addressee.

- (7) [PRO.1 ARRIVE HOME]-TOP, PRO.1 MOTHER WORRY, [WHY WHERE]-WH-Q 'I got home, and found my mother worried about where I had been.' (Janzen 1998: 103, his example 26c)
- (8) [GO R-E-U-N-I-O-N SOCIALIZE FINISH]-TOP #BK HOME WINNIPEG '(after) going to the reunion, (we went) back home to Winnipeg.'
 (Janzen 2025: 12, his example 6)

We can thus see that the marked topic phrase is not always a simple NP, which does not necessarily coincide with the subject of a verb in the comment phrase (Janzen 1995a; see also Li & Thompson 1976). Topic in ASL, as can be seen, does not equate to subject. In (2), note that the subject of the verb WORK is not the topic constituent, and is not overt in the utterance at all, but must be inferred.

5. Discourse functions of topic

The examples in section 4 above illustrate both structural and pragmatic features of topic-comment constructions, some of which are discussed further in sections below. It has sometimes been assumed that the topic element in ASL functions as an emphatic structure (Janzen 1995a). In an early attempt at formulating a grammar of ASL, Isenhath (1990) suggests that the marked topic phrase represents the strongest emphatic information appearing in the sentence-initial position. This may be a consequence of wrongly assuming that what might be the case for English occurs as a similar construction in ASL. Instead, Janzen (1998), following Li and Thompson (1976, 1981)

⁸ Traditionally, ASL pronoun paradigms show a phonological distinction between personal and possessive pronouns. Thus a personal 1s pronoun would be a point with the index finger to the signer's chest and a possessive 1s pronoun would be contact with the chest by a flat hand with all fingers extended. In some of these corpus texts, however, personal and possessive pronouns are not distinguished, both taking the form of an extended index finger point, which could be a marker of casual signing by these signers.

for Mandarin, and Ingram (1978) and McIntire (1982) for ASL, proposes that ASL is a topic-prominent language, finding an average of 21.6 (72%) topics per 30 utterances in opening discourse sequences in a range of monologic texts. The high frequency itself suggests that it is unlikely that topic marking signals emphasis, and further, Wilbur (2012) has shown that the focus position in ASL tends to be clause-final, which would more likely correspond to comment portions of utterances than to utterance-initial topic phrases in terms of emphatic material.

Beyond this, we can also learn something about topics by examining how they function in longer stretches of discourse. What is not apparent if we look only at single utterances as the unit of analysis is that topic in ASL marks topic shift, and not topic maintenance. One example is from Janzen (1998: 236–237, his example 11: a narrative):

(9)

a. [PRO.1]-TOP YOUNG OLD APPROXIMATE [SIXTEEN SEVENTEEN]-E-N APPROXIMATE

'I was about sixteen or seventeen years old,'

- b. [CAN'T REMEMBER]-NEG-NOD PRO.1 'I can't remember.'
- c. [THAT ERA]-TOP PRO.1 + GO.TO_a FRIEND POSS.3_a + DAY PARTY]-E-N *pause*⁹ 'One time, I went to a friend's birthday party.'
- d. [PRO.3_a]-TOP *pause* [PARTY CL:5(*full of people*) F-U-N]-E-N 'There, at the party, there were lots of people. It was fun.'
- e. [PRO.1]-TOP ARRIVE WITH GOOD.FRIEND, OTHER FRIEND,

lh: PRO.3_h

TWO BOY

lh: 2_b

'I arrived with my best friend, another (girl)friend, and two boys.'

⁹ The third-person possessive pronoun + DAY is a phrase meaning 'birthday' in the Winnipeg, Canada dialect of ASL.

Details aside, four out of the five utterances in (9) begin with a marked topic phrase, and in no case are two consecutive topics the same content. Janzen (1998: 237) represents the topic shifts as:

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(10)
a. [1s]-TOP + time reference
b. [that era]-TOP + event + location
c. [demonstrative 'there']-TOP + state
d. [1s]-TOP + event
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In the four utterances represented in (10), the topic shifts from a 1s pronoun to a temporal phrase, to an identifiable demonstrative, and finally to a 1s pronoun once again. This example thus illustrates that topic-marking does not appear to be a mechanism that indicates topic maintenance, which is taken up in section 6.1 below.

6. Some problems in defining 'topic' as a category in ASL

The examples above show some of the variability in what can be considered by the signer as identifiable, or topical, material suitable for topic marking. In the sections that follow, we examine some additional problems in defining not only what topic is, but also in determining whether there are sufficient parameters to identify topic as a category, at least for ASL.

6.1. Problem 1: A topic hierarchy in ASL and its implications

Every language has means of signalling the relative topicality of a referent, either lexically or grammatically. For example, lexical full NPs are typically understood as introducing or indicating items low in topicality, whereas pronominals and, especially, zeros or null forms occur when a higher degree of topicality is apparent. The question for ASL is what the relationship is between topic, as a particular construction, and topicality as a whole. Janzen (2007) gives some insight into this, suggesting that marked topic constructions are in fact at the lowest end of the set of constructions that reflect some degree of topicality. A topicality hierarchy adapted from Janzen (2007: 184) is in (11):

(11) Increasing Topicality of Nominal Structures:

High Topicality

Zero Reference
Reference Shift (without body shift)
Reference Shift (with body shift)
Spatial Referencing
Pronoun
Classifier Construction
Full Noun Phrase
Clause-length Constructions

The elements marking the highest level of topicality in ASL are zero references, where the referent has no overt form whatsoever, considering that zero references fully assume recoverability on the part of the addressee. Example (2) above illustrates this, as the topical subject of WORK is a zero reference. An important point to consider here is that topics within ASL topic-comment constructions are marked prototypically with eyebrows raised throughout the full articulation of the topic phrase in topic-first, comment-second sequences, as a combination of signed (i.e., lexical) and gestural (i.e., primarily facial) elements simultaneously. But with zero references there is no signed element that could be overlayed with topic marking: zero referencing plus topic marking does not occur in ASL discourse.

This is also the case for reference shifts with or without body shifts, and spatial referencing. Janzen (2004, 2012b) describes two types of reference shifting that commonly occur in ASL discourse, which are differentiated when the genre is a comparative frame (Winston 1995) or a narrative sequence. Shifts in reference along with body shifting refers to the positioning of entities within the signer's space immediately in front of and around the signer's body. That is, when a signer wishes to establish the discourse salience of a referent that is not actually present in their physical environment, the signer designates a spatial locus, perhaps to a rightward or leftward locus, and points to it or articulates an NP (e.g., 'the teacher') at that spatial location (see Engberg-Pedersen 1993 for details; Engberg-Pedersen describes Danish Sign Language but her analysis appears applicable to many signed languages including ASL). Subsequently, shifting the body may occur so as to orient an action or a comment (constructed action or constructed discourse, Liddell & Metzger 1998) as originating from

that referent. Figure 3 from Janzen (2012b: 157, his Fig. 7.1a and b) illustrates this, where the signer indicates a leftward space, and subsequently leans toward that space when enacting that referent's viewpoint.

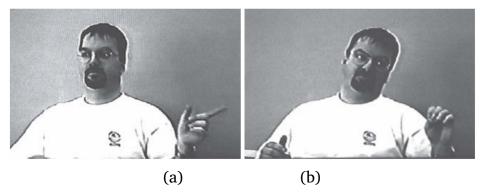


Figure 3: Indicating a leftward spatial locus in (a); the signer leaning toward the leftward locus to enact a referent's perspective.

The movement of the body shift and positioning at or near that designated spatial locus is an overt and visible action that does not need to be accompanied by a lexical or pronominal reference to the entity, thus it is highly topical because such repositioning is sufficient to evoke the referent for the addressee. However, a body shift to a designated spatial locus alone is insufficient to attract topic marking; topic-marked body shifts are not attested in ASL discourse studies (Janzen 1998, 1999).

Janzen (2004, 2012b) discusses body shift referencing associated with comparative frames as representing loci in a "static space" layout. In this discourse frame, referents are positioned in loci in the signer's space when the referents are compared, for some purpose, but do not interact. Signers shift from one spatial locus to another when comparing attributes. The referential loci remain static in the space even when the signer (bodily) shifts from one perspective to another. A static layout has in past studies (e.g., Lillo-Martin 1995 and others) been thought to characterize the narrative genre as well. But when an interactive event is being described within a narrative context, spatial positioning is different, that is, in narratives ASL signers rotate the spatial scene mentally such that the perspectives of interactants in a narrative move (or "rotate") to coincide with the signer's view of the space. Figure 4 from Janzen (2012b: 157, his Fig. 7.1c) shows that there is no overt body lean to any particular space, instead the signer assumes the stance of a narrative referent.



Figure 4: The signer assuming the stance of a narrative discourse referent without a body shift.

Janzen (2004, 2012b) describes this as spatial rotation where the spatial scene is conceptually rotated so that each interactant's perspective in turn aligns with the signer's central stance. In Figure 4, the character enacted is a police officer interacting with the occupants of a vehicle, with the signer assuming the perspective of the officer without shifting to an alternate space. This then constitutes a reference shift without an overt physical body shift in the signer's space, meaning that the viewer must understand who the referent is with less overt marking. In these constructions, the lack of overt referential marking requires a high level of topicality to be identifiable, intermediate between an overt body shift and zero marking, and again, such a construction does not attract topic-marking morphology.

A somewhat related construction, spatial referencing, is positioned below reference shifting with a body shift on the topicality hierarchy. These referencing instances are constructions where a referent has been positioned spatially with subsequent referencing "agreeing" with that space (Padden 1988). For example, once a referent has been positioned, if that referent is the agent of an act of giving, the verb 'to give' begins with an articulation of the verb at that spatial location, which then moves along a path toward another location associated with the recipient (Wilcox 2011). In this case the referent is identifiable from a previous mention such that merely positioning the beginning point of the verb's path movement at that locus evokes that referent, but even though doing so identifies it as highly topical, the verbal path movement and what it signifies seems not to attract topic marking in ASL discourse.¹⁰

¹⁰ Further research on what might distinguish reference shifting with/without body shifting and spatial referencing as described here is needed. Saunders (2025) discusses a constructed scenario in a *langue des*

The lowest four categories on the topicality hierarchy that do appear as marked topics are pronouns and other constructions containing lexical material: classifier constructions, full NPs, and clause-length constructions. As we move toward the bottom of the hierarchy, each category represents items that increase in explicitness, and therefore decrease in relative topicality in discourse overall.

The pronoun system in ASL (and many other signed languages) consists of points, most typically pointing with an extended index finger (excluding possessive and reflexive pronouns) to the self (first person singular), the addressee (second person singular), or to other entities in the signer's environment or to non-present referents positioned in the signer's space (third person singular). (The paradigm of plural pronouns is somewhat more complex and will not be dealt with here.) While there are a number of ways in ASL to indicate referents, as the higher categories on the hierarchy demonstrate, pronominal points represent an overt class of items that may be topic-marked. Their occurrence in an utterance corresponds to at least some expectation of identifiability as the addressee must understand who or what is being referred to, but they are lower on the topicality hierarchy than are zero forms, reference shifts, and spatial referencing. Still, they are not a particularly common item that is topic-marked. As mentioned above, Janzen (1998) found that in a small corpus of monologic ASL discourse texts, just 9.7% of all marked topics were pronouns. One example of a topic-marked pronoun is (12) adapted from Janzen (1998: 149; his example 9):

(12) PRO.1 THINK.APPEAR FIRST THINK.APPEAR _bF-O-R-E-S-T N-I-C-K-E-R-S-O-N 'I immediately thought of Forest Nickerson'

[PRO.3 $_{\rm b}$]-top first $_{\rm a}$ GO.To $_{\rm b}$ America $_{\rm b}$ N-A-D $_{\rm a}$ NATIONAL ASSOCIATION $_{\rm a}$ GO.To $_{\rm b}$ $_{\rm b}$ Learn

signes Québécoise (LSQ, or Quebec Sign Language) study where a signer designates a leftward spatial locus for the recipient of someone giving something to them, in a sequence where the action is described but not enacted. But in the enacted version (i.e., a narrative sequence), the signer enacts the giver giving the thing, with the sign 'to give' moving to a location directly across from them in a central location, in effect rotating the original spatial setup. The question remains, then, of whether static spatial layouts ever do appear in narrative discourse sequences, or are characteristic of constructed texts in research settings. The resolution of this issue is beyond the scope of the present discussion.

'He first went to the National Association of the Deaf – NAD – in the United States, to learn (about their activities).'

This example clearly illustrates that pronominals are not necessarily topic-marked (e.g., PRO.1 in the first utterance). But once a referent has been identified and thus becomes accessible, in this case the fingerspelled NP in the first utterance that has also been given a spatial position (designated as location subscript 'b'), a pronominal point to that location, as in the second utterance (in bold), can be topic-marked, indicating topical information in the discourse.

A step lower on the hierarchy are classifier constructions. Whether these items are rightly categorized as "classifiers" has been open to question (Schembri 2003). Schembri prefers the term "proforms", in ASL a set of handshapes that participate in what Supalla (1986) describes as a class of verbs of motion and location, something akin to Mithun's (1986) description of noun incorporation in verb forms. Mithun finds that a classifier form can act anaphorically in place of a pronoun, although it is not referential. As one example in ASL, an upright extended index finger that iconically represents an upright entity or figure, prototypically a human being, is the handshape in the lexicalized sign meaning 'to meet', but these handshapes can, depending on the movement of the hands, indicate other human actions such as one person turning away from the other, moving past the other, etc. (Janzen 2012a; see also Engberg-Pedersen 2010 and Zwitserlood 2012 for overviews of classifier forms in signed languages).

Importantly, a classifier handshape such as this does not identify a particular referent—that identifiability must come from elsewhere, such as a previous full NP mention or somehow pragmatically—but it gives the addressee a higher degree of information than does a pronominal point. More so, since an articulated classifier handshape cannot itself stand alone as a well-formed sign, it forms a construction along with a verbal movement (again, e.g., a handshape representing a person moving past someone; another handshape represents a vehicle that might be shown to move past a person, etc.) and it is this construction that can be topic-marked, as long as the entity plus the action are retrievable as identifiable information for the addressee, or that it is fully active in a discourse participant's consciousness.

In (13), along with Figure 5 showing a topic-marked classifier construction, the signer is telling a story about a rock-climbing incident where she was stuck on a rock face, and

to help her out, her friend had to climb over her and up to safety above them. In this discourse segment there are three utterances. The first, (13a), is an explanatory utterance describing the situation of her being stuck, and the friend climbing over her and up. To do this, she signs a combination of two classifier-handshape + movement verb constructions, one (with her left hand) describing her state of being stuck, and the other (with her right hand simultaneously)¹¹ describing the movement of her friend. The second utterance (13b) emphasizes that her friend actually climbed over her to accomplish the rescue.

The third utterance (13c) contains the topic-marked construction. The signer repeats the classifier construction consisting of the classifier handshape (legs) and the movement verb (over her and up), but it is a truncated version characteristic of topical information: if it is topical, then less needs to be said to evoke the reference. The construction is topic-marked – note the raised eyebrows in Figure $5b^{12}$, and the utterance as a whole is a topic phrase (identifiable because it has just been stated in a close prior utterance) followed by the new information, 'she makes it!'.

(13)

a. POSS.1 FRIEND NOW rh-CL:V(legs)

lh-CL:V(legs + movement:centre/behind rh wrist \rightarrow upper left)

'My friend now climbs over me and up the rock face.'

b. OVER PRO.1

'Over me!'

⁻

¹¹ Such simultaneous articulation of two different items being signed on each hand is common in signed languages (Vermeerbergen et al. 2007), reflecting affordances of bodily articulation, where iconically two things occurring at the same time can be represented in the articulation the items by the signer's two hands. Unsurprisingly, this is much less available to spoken language speakers, where two co-occurring events must be described by sequential phrases or clauses.

¹² It might be argued here that the raised eyebrows accompanying this phrase instead indicate an assessment of effort. Raised eyebrows are multifunctional (see Wilbur & Patschke 1999) so it may not be possible here to know which function they perform, or it could be both. In any case, the 'known information, new information' structure of the clause is another clear marker of topic-comment structure.

c. [rh-CL:V(legs + movement:centre — upper left)]-TOP, MAKE I-T 'As for her climbing over me and up the rock face, she makes it!'

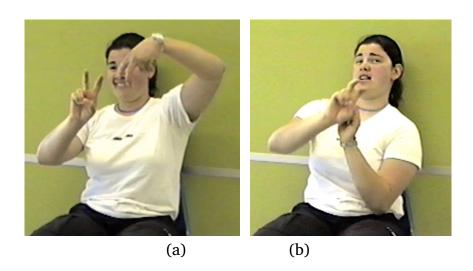


Figure 5: In (a) the signer articulates a classifier form for human legs on both hands. The left hand classifier handshape represents herself stuck on a rock face; the right hand represents her friend climbing over her and up. In (b), she uses a topic-marked classifier construction, the same classifier handshape plus a verb of motion moving upwards.

Below classifier constructions on the topicality hierarchy are full NPs. This is striking in that while full NPs would indicate very low topicality because they are fully specified referentially, they are commonly in topic position in ASL and marked as topics. Janzen (1998) found that 35.6% of all topics in his corpus were full NP phrases. An example is (14), adapted from Janzen (1998: 152, his example 12b).

(14) [POSS.1 BROTHER]-TOP FINE.emph(intense) 'My brother (goes) "that's great!"

While the relative topicality of the possessive NP is low in (14), there appears to be a discourse reason for topic marking, having to do with topic shift, rather than topic maintenance. In the narrative that (14) is taken from, the brother is a key story character, but he has not been positioned at any specific spatial locus, and the narrator moves from character to character perspective, such that some clearly identifiable referential labeling is necessary to keep each story character and their actions clear.

The final, lowest category of marked topics on the topicality hierarchy is full clauses. Similar to full NPs, topic-marked clauses make up 35.6% of all topics in Janzen's (1998) study, resulting in 71.2% of all marked topics falling in the full NP and clause categories combined. Thus, the vast majority of topic-marked phrases in Janzen's (1998) ASL study are at the lowest end of the topicality hierarchy. That is, of all the items in ASL discourse that correspond to some degree of topicality, topic marking by far indicates items that are the most content explicit. An example of a clause-level topic is in (15) (adapted from Janzen 1998: 163, his example 18d):

(15) [PRO.1 GROW.UP PRO.1 DEAF.SCHOOL PRO.3_b + +]-TOP CHAT.ASL + + 'When I was growing up at the school for the Deaf, we signed ASL.'

The topic-marked clause in (15) represents an already topical situation that the signer wishes to comment on. Here, the signer identifies the situation of growing up at a school for the Deaf, presumably fully identifiable to the addressee, in order to make the comment that signing ASL was the norm.

Note that the topic phrase in the utterance in (13c) above, about climbing up a rock face, also qualifies as a full clause. Even though it is a single complex item—a verb of motion with noun incorporation in the form of two classifier handshapes—such a signed construction, albeit without topic marking, could stand alone as a fully clausal response to the question "what did the climber do next?" However, classifier constructions are positioned on the hierarchy between pronouns and full NPs because they are intermediate in terms of explicitness, and a classifier handshape itself never appears alone as a meaning unit: it is either positioned somewhere in the signer's space to additionally identify the (relative) location of an entity or incorporated in a verb of motion.

Altogether then, the topicality hierarchy shows that grammatical topic does not correspond to highly topical elements in ASL discourse. Rather, highly topical discourse referents tend toward zero forms, and topic marking does not have the function of designating highly topical elements.

6.2. Problem 2: How "given" are topics in ASL?

Ellen Prince's (1981) idea of givenness is a frequently cited pragmatic characteristic of topics, yet she finds prior accounts that focused on givenness as "shared information" inadequate, and proposes instead a taxonomy of information in terms of degrees of assumed familiarity. That is, information could be 1) new – an entity is newly introduced into the discourse; 2) evoked – either from earlier in the text (textually) or from the situation surrounding the current discourse (situationally); or 3) inferable – the entity can be inferred through logical or plausible reasoning, or an inference can be based on some aspect of the NP itself (Prince deals only with NPs as topical elements). Prince's points 2 and 3 are most relevant here.

The idea of assumed familiarity is appealing, and it is important to emphasize that it is the speaker or signer who is making the assumption about the content of their chosen topic phrase and the knowledge store of the addressee. But what familiarity entails puts it on a very wide continuum.

Many researchers investigating topic note that any definition of topic is going to be somewhat imprecise. For example, Dahlstrom (1995) notes that the definition of topic is controversial, suggesting that while topic corresponds to given or "old" information, this isn't a "necessary condition" (Dahlstrom 1995: 6). Dahlstrom's discussion of topic in Fox (Algonquian) is grounded in sentence properties within a generative model where a topic phrase T is a leftward node below the sentence node S', and she notes that an item can occur in this position that does not adhere to the general understanding of givenness. For example, she includes instances of *oči*- meaning 'from', but which can take the form of *we či*. This Dahlstrom glosses as 'why', in topic position, as in (16) (Dahlstrom 1995: 21, her example 44):

(16)
$$[_{TOP} we \dot{c}i$$
- $]$ $[_{FOC} ni na]$ $[_{OBL} i ni]$ $[_{V} - -inenakowe]$ why I that (why).I.say.[thus].to.you.PL 'why I said that to you'

Whether a structurally-based analysis of topic (that apparently involves a leftward transformation from a slot, now empty, in the sentence-final verb) would hold within a functional/pragmatic framework will not be taken up here. Rather, it is interesting that

Dahlstrom entertains the possibility of the topic containing a semantic item that does not conform well to the traditional notion of a definite NP considered as given information. 'Why' is not a content word, so it might seem quite unusual to consider it as a candidate in a topic slot, or taking topic-marking, so in this sense it doesn't feel very topic-like. But ASL appears to do something quite similar, which is taken up in section 6.3 (When is a 'topic' not a topic?) below.

Also within a structural framework, Wilbur and Patschke (1999) examine the brow raise (their notation: br) has been understood to participate in topic marking in ASL, citing Liddell (1977) as one of the first to identify its consistent use in marking topics along with a slight backward head tilt. They also note Baker-Shank's (1983) description of so-called rhetorical questions in ASL as marked with 'br' plus the head tilted back (or toward the side). They examined 'br' in a number of syntactic contexts and state that the "presence of 'br' is associated with all and only such syntactic positions, and is not obviously correlated with commonly identified communicative functions, information status, intonational phrases, or other non-syntactic domains" (Wilbur & Patschke 1999: 3; see also Wilbur 1999). Among the evidence they cite is that 'br' is not just found on topic phrases, but accompanies new information in some cases, as in (17) where the item, according to Wilbur and Patschke, is a contrastive topicalization containing new and focused information (Wilbur & Patschke 1999: 13, their example 13; from Aarons 1994):

(17) JOHN_i NOT.LIKE JANE. [**MARY**_j]-BR, HE_i LOVES
$$t_j$$
 'John doesn't like Jane. It's *Mary* he loves.'

What Wilbur and Patschke are perhaps missing in this example is that MARY in the sentence MARY HE LOVES fits the syntactic profile of a topic-comment construction with one of the most salient topic markers, raised brows. Even if it is contrastive, the referent 'Mary' would still need to be identifiable to the addressee if this utterance occurred in natural discourse ("evoked", in Prince's 1981 terms; at least "semiactive" in Chafe's 1976, 1994 paradigm). If the referent 'Mary' were to be newly introduced into the discourse, in other words a first mention in the present discourse event, it would still need to be recoverable or retrievable by the addressee via some previous shared experience. For example, there's only one Mary that both the signer and addressee know,

or pragmatically there is only one Mary that could possibly be intended in this specific context. On the other hand, the signer may be making an assumption that who Mary is will be retrievable when this is not the case. If so, the contrastive structure is grammatical and "works", but pragmatically it does not. This suggests that the idea of givenness in such an utterance is both complicated and somewhat questionable. Once again, all this emphasizes the role of intersubjectivity in the success of discourse interactions.

A final type of topic construction in ASL that challenges the attribute of givenness is discussed in Janzen (2018), who looked at marked topic phrases introduced by either the signs KNOW or UNDERSTAND. KNOW-topics are discussed in section 6.3 below, because they are characteristically not the topic in the sense of being what the sentence is about. Here we focus on UNDERSTAND-topics. In the 2000 ASL corpus study, Janzen found that the item UNDERSTAND could occur in discourse as either a lexical verb or a topic element, which is described as a grammaticalized form of the verb that does not have functional lexical status but instead forms part of a particular type of topic phrase. This use occurred more frequently in the corpus (41 tokens, or 62.7% of all tokens of UNDERSTAND) than UNDERSTAND did as a lexical form (20 tokens, 32.8%). Two examples are in (18) and (19), from Janzen (2018: 79, his examples 17 and 18):

- (18) [UNDERSTAND PRO.1 SIGN]-TOP NEG TALK 'It's given that I would be signing, not speaking.'
- (19) [UNDERSTAND 20 DOLLAR]-TOP PRO.1 DON'T.MIND PAY PRO.3 20 DOLLAR 'Given the idea of paying twenty dollars, I don't mind paying him the twenty dollars.'

In these two examples, the content of the topic phrase is not something that has been introduced in the discourse previously, and perhaps not something that could be inferred by other parts of the discourse, either the prior utterance or the comment of this utterance. In (18) the signer is describing a hypothetical situation, suggesting that in a certain context she would be signing and not talking. In (19), the signer suggests that in a particular context, having to pay someone twenty dollars for doing something is acceptable. In neither case is the topic phrase content readily retrievable, and therefore

could not be considered as given. Instead, in UNDERSTAND-topics, it is information that "the signer wishes the addressee to accept as a given state of affairs, or as an agreed upon reference point from which to view the comment" (Janzen 2018: 79). It is only given in the sense that it could be an understandable, or perhaps logical state of affairs.

6.3. Problem 3: When is a 'topic' not a topic?

Above we have seen examples of topic-marked constructions in ASL that well reflect the pragmatic, intersubjective notion of assumed identifiability, and others that do not quite fit this schema. In this section I present examples that, while marked as topics in the same way, do not seem to be topics in the above senses at all. First, it is helpful to understand that the topic-first/comment-second form does not tell the whole story. While such utterances have long been described in this way (see, for example, Li & Thompson 1976; Givón 1984; Hornby 1971; Ingram 1978; Prince 1981; and others), Janzen (1998, 1999) suggests that topic phrases in fact fall between two elements, whether these be syntactic (i.e., expressed overtly in the discourse) or in part, pragmatic (cf. Prince 1981). That is, in representing some identifiable information, that information has to come before, either as part of a prior utterance, or in some sort of already shared knowledge between discourse participants. Such discourse prior mention is evident in example (9) in section 5 above about going to a friend's birthday party, where an element introduced as new information then becomes available in a subsequent utterance as identifiable. Thus a topic can be described as a kind of pivot, marking a turning point from identifiable information to new information, which reflects the idea that marked topics, at least in ASL, indicate topic shift rather than topic maintenance.

Janzen (1998, 1999) identifies a number of cases of topic-marked ASL discourse markers, connectors, and so-called "rhetorical questions" (Baker & Cokeley 1980; Valli & Lucas 1992; Valli et al. 2005; cf. Wilbur & Patschke 1999). These recall Dahlstrom's (1995) example above (example 16) where *we či-* 'why' in Fox is in topic position in the clause.

(20) ... HELP IN TWO WAY + pause [FIRST] -TOP pause LEAD POSS.3 WALK + + '... helped in two ways, first, by leading him (on his) walk' (Janzen 1998: 111, his example 31)

(21) WHAT'S.UP, GO.TO RESTAURANT pause EAT + + [BE.FINISHED] - TOP TAKE.ADVANTAGE SEE TRAIN ARRIVE

'So then, we went to a restaurant, ate, **and then** got to see the train arrive.' (Janzen 1999: 295, his example 31)

In (20) we see a listing numeral as a kind of discourse marker, from a filmed lecture by John Hotchkiss around 1913 in the US, and in (21), two clauses are separated by the sign BE.FINISHED (most frequently glossed as just FINISH, but the gloss BE.FINISHED gives the essence of its true meaning in ASL somewhat better). First, in both of these cases, the topic-marked element is positioned between two elements, acting as a kind of linker or pivot. Second, even with the topic marking, it is not very topic-like: it cannot be said to be what the sentence is about (the "aboutness" claim, Hornby 1971; Lambrecht 1994), and it would be difficult to position on the topicality hierarchy described in section 6.1 above. Janzen (1998, 1999) proposes that discourse elements such as these concern the signer's assumed identifiability on the addressee's part of discourse structuring, acting as a kind of "signpost" guiding the direction the discourse is taking. In (20) the addressee has already been told that the signer wishes to make two points, such that what follows is likely to be those two points. [FIRST]-top then specifies for the addressee the identifiable (and undoubtedly obvious) position the signer has arrived at in the textual plan (see Traugott 1989).

In (21), Janzen (1998, 1999) identifies [BE.FINISHED]-top as having grammaticalized from the ASL verb FINISH 'to finish', functioning as a grammatical item that links the clauses immediate prior to and following it in an interesting way. If BE.FINISHED had a more literal meaning, it would be more clearly connected to, or a part of, the first clause, i.e., 'we were finished eating' (Janzen 1995b identifies FINISH in a clause final position as a completive marker). But because it occurs with topic-marking, it is more reasonably associated with the clause that follows as a topic+comment construction, such that in grammaticalizing, it has partially pulled away from the first clause and formed a closer relationship with the following clause, linking the two together more closely syntactically (see Heine & Reh 1984 on reanalysis). Again, it is not topical in terms of informational content, and it is not what the sentence is about, but to the discourse-fluent addressee, it acts as an identifiable pivot in the text. Suggested here is that both cases, then, are better analyzed as a positioning or reference-point construction

(Langacker 2008, 2013) that puts in view the next element, the so-called "comment". Thus in neither of these two cases does the topic-marked element qualify as a topic in the traditional sense. Example (22) is a further example, with an additional function:

(22) POSS.1 GOOD.FRIEND PRO.3 SAY THERE ALCOHOL IN,

[WHY]-TOP PRO.3 MOTHER PREVIOUS WORK ALCOHOL STORE (...)

'(I...) my best friend said she knew there was alcohol in it because her mother had worked in a liquor store before, (and...)'

(Janzen 1999: 294, his example 27)

The element notated as [WHY]-top in (22) has for a long time been considered as a rhetorical question (e.g., Valli & Lucas 1992; Valli et al. 2005), although Wilbur (1999) and Wilbur and Patschke (1999) suggest that elements such as this do not have rhetorical question function. Janzen (1998, 1999) considers them as having grammaticalized to function similarly to the textual "topics" in (20) and (21) (see also Herring 1991), but additionally, occurring when the order of clauses does not have the canonical iconic order of events taking place in a straightforward temporal sequence. Further evidence that it is not a true rhetorical question is that in ASL discourse, rhetorical questions do exist that are clausal, marked with wh-question marking (essentially, furrowed eyebrows) and not topic-marking, with the signer not signalling to the addressee that they seek a response. Therefore [WHY]-TOP in (22) functions as a pivotal discourse marker, and is best translated as 'because'. Both clauses, just prior and following, consist of new information, with the second clause providing the contextual situation that informs the first clause, again, not in the order of a temporal sequence. The topic-marked item is not topic-like at all pragmatically, but functions structurally as a pivotal textual element in organizing the discourse segments, in this case when the two clauses are not temporally ordered. The first clause (the friend knows the punch contains alcohol) is the point of the utterance, with the second clause giving background information.

In (23), the final example in this section, we see a topic-marked phrase of a somewhat different sort.

(23) [KNOW R-O-A-D HIGHWAY]-TOP off.to.side_{rt} [NEG on.side.road]-NEG.NOD CL:3(vehicle).move.over_{rt} FINISH pause

'Given the highway, (we) moved off to the side, not onto a side road but just to the side of the road.'

(Janzen 2017: 523, his example 2)

In (23) the topic-marked phrase is clausal, beginning with KNOW 'to know', which Janzen (2018) describes as a grammaticalized verb which has lost its lexical semantic character, here functioning to mark a certain type of topic. Janzen finds that KNOWtopics introduce a kind of domain, which at the moment of signing may or may not be within the conscious awareness of the addressee, but which seems not to matter. In this case, the topic phrase translates (roughly) to 'do you know what highways are like?', where it functions as a topic constituent and not an actual question (or at most a negotiated topic)¹³ because the signer is not interested in a response. Asking if the addressee knows about highways, if it were an actual question, does not make communicative sense – most people would have some experience with them. Also, it is not a question about a specific highway with specific characteristics relevant to the situation. Rather, the signer is prompting the addressee to visualize what a highway looks like. Further, and more important, is that the comment in this utterance is about being off the highway onto the shoulder. This being the case, the so-called "topic" phrase (marked as such) acts simply as a reference point (Langacker 2008, 2013). The utterance is not about the highway itself at all, but with the highway as a locational starting point, attention can be directed to a second location that is in focus.

6.4. Problem 4: Local, sentence-level topics vs. discourse-level topics

A further complication to the idea of a topic category in language is the distinction between sentence-level (grammatical) topic and discourse topic. Grammatical topics have been discussed above. Discourse topics on the other hand are broader, and which may or may not be overtly stated at or near the beginning of discourse segments, such as 'guess what happened to me at work today!' although there is no discourse

¹³ Negotiated topics occur frequently when the signer is not certain that their choice of topic is in fact identifiable information for the addressee, but detailed discussion is beyond the scope of this paper. See, however, section 3 above.

requirement that a discourse topic needs to be introduced so specifically. Discourse participants are often in the position of ascertaining the discourse topic based on clues from what is said as the speaker continues. Such a topic may sometimes become clearer once the speaker is well into the story. A more global discourse topic is inevitably new information – speakers do not (typically) tell stories that their interlocutors already know. Discourse topic expressions in ASL differ in function from sentence-level topics, and do not appear with topic marking – they are not markers of assumed accessible or retrievable information. Once stated, however, they can be understood as what a discourse segment is about.

A point to make here, however, is that there is no requirement of a one to one correspondence of (sentence-level) topic and comment phrases. The topic-comment construction (i.e., one topic + one comment) is perhaps the default, although this has not been studied in any detail for ASL. McIntire (1982) discusses the possibility of up to three topic-marked phrases in sequence (see also Janzen 1998), which might, for example, have a narrowing locational effect, beginning with a broad reference point, and narrowing it so as to locate something at a specific place (e.g., something like, in the kitchen, on the counter, beside the cooktop). On the other hand, a marked topic may have scope over a series of comments, thus could be said to operate at a discourse level above the sentence. These facts make the distinction between sentence-level and discourse-level less clear, adding to the question of what should be considered if attempting to define topic as a category.

7. Concluding comments

Given the discussion above, it is clear that the category label "topic" is problematic in ASL in a number of ways. First, the label may be a theoretical holdover generally, but as well, analyses of ASL structure have often historically been based on comparison with English. English has been analysed as a language where "aboutness" plays a major grammatical role, and where there are dedicated syntactic processes and positions for a constituent to acquire this role. One mechanism has been referred to as "topicalization", meaning that something appears, or is moved to, a left-edge sentence position, thus frequently being a sentence position for an element in focus. But in ASL the utterance-initial topic does not function in this way, and does not neatly map on the aboutness

notion as it does in English, or in general, but rather may be best viewed as a reference point construction from which to understand and inform the comment constituent information that follows it.

This relates directly to the theoretical "aboutness" proposal that the utterance is "about" the topic (Hornby 1971; Lambrecht 1994). For Langacker, this appears insufficient. He suggests that "[a]s with many fundamental notions [about language], it is hard to find a verbal definition that does not seem hopelessly vague" (Langacker 2008: 513), and proposes that whatever "aboutness" is, it must be something related to conceptual structure. For topic constructions, Langacker suggests they are a kind of reference point organization. Langacker's schematic view of reference point constructions was given early in this article, in Figure 1, but his proposal for topics specifically is illustrated in Figure 6 showing that mental scanning entails that the conceptualizer (C) encounters the reference point (R) that leads to a proposition (P) as the target (T), within a domain (D). For Langacker, D is the range of associated knowledge such that numerous potential propositions may exist, but in a given instance, one particular P manifests as the target. The small circle between P and T is a representation of the reference point within the proposition, which Langacker refers to as a pivot. The pivot may be overt, as in example (5) with OTHER BOY as topic, and PRO.3 ('he') as the coreferential pronoun in the comment that follows. However, the reference point construction may not have any overt representation in the comment, as has been shown for a number of ASL examples given above.

All in all, Langacker's reference point analysis seems an apt schematic description for what we see in ASL, but the question remains whether we can rightly call the reference point material a topic. Yet at this point, it is difficult to discuss these examples without using the terminology that has been widely used all along. Wilbur (1999) and Wilbur and Patschke (1999) similarly move away from a "topic" analysis, but only in terms of brow raise ('br'), in that they find that 'br' is sometimes but not always a marker for topical information. In more complete analyses of (so-called) topic constructions, brow raise is only one possible marker, another being a head tilt, but perhaps more importantly, the utterance structure consists of topic information followed by comment information, or in Langacker's terms, a reference point construction followed by propositional material. How these two pieces fit together forms the conceptual structure of the whole.

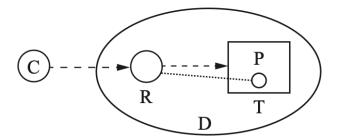


Figure 6: Topic as reference point. From Langacker 2008: 513, his figure 14.3.

Looking once again at the aboutness proposal discussed above, we see that it does not hold for ASL. Some of the most obvious examples are the topic-marked temporal phrase in (2) that contextualizes the focused information that the signer has to work, the rock face scenario in (13) where the topic-marked phrase acts as a reference point to get to the action that follows, and in (23), where a more complex locative construction (what highways are like) serves to situate the actual action being described at a second focused location (off the highway onto the shoulder).

Next, while it is not disputed that the notion of topicality discerns between discourse items that are mutually identifiable among interlocutors in an immediate context and those that are not, this does not categorically equate to the structural elements of topic and comment in ASL. The most topical elements in ASL discourse are positioned at the highest levels in the topicality hierarchy given in (11) above, whereas marked topic phrases, with their high degree of explicitness, are at the bottom of the hierarchy. Thus "topic" in ASL does not fully equate to high topicality.

A third point to make is that givenness as a characteristic of topic phrases must be considered as on a continuum, which is not unexpected since it is not a property of language but rather is determined by speakers' and signers' conceptualizations of states and events, and more locally, their intersubjective assessments of what their interlocutors may or may not have in their knowledge store or conscious access in their present discourse. Such intersubjective assessment is dynamic. A reference-point analysis reveals too that at times signers wish to choose something as a reference-point that may well not be within the addressee's knowledge store, as the UNDERSTAND-topics in (18) and (19) demonstrate. In these, the signer puts forward some new information that they wish the addressee to accept as a reference point orientation that allows them access to

understanding the content of the comment, again intersubjectively, in a way intended by the signer.

Fourth, there are a good number of instances of formally marked topic phrases that could not be said to function as a contentful topic nor could be easily positioned on a topicality hierarchy. These are discourse markers and connectives, which exemplify the pivotal nature of topics, and relate to signers' and addressees' knowledge of, or understanding of, textual elements that guide the addressee through the discourse text, as fluent signers. In addition to the examples given in section 6.3 above are the frequent marking of connectives such as AND (instructing the addressee that the text will continue in a particular direction) and BUT (instructing the addressee that the text will take a turn). Thus while parallels with more contentful topics are clear, these pivots, in Langacker's terms, could not be considered topics of sentences or of discourse at all, but are textual reference points with pragmatic and intersubjective implications.

An additional example of a marked topic that cannot be considered as what the sentence is about is the KNOW-topic in (23), in which the structure of a highway (what highways are typically like) makes a good locative reference point for the event that took place to the side of the highway. Once again, there is no way to construe this "topic" as being the topic of the sentence.

Fifth, there is at least some discrepancy between sentence-level topics and discourse-level topics, for the simple reason that we would consider a sentence-level topic phrase to be assumed accessible, whereas a stated discourse topic is most appropriately, perhaps in a Gricean way, new information. A discourse-level topic, as described in section 6.4 above, such as 'can I tell you a story about a mouse?' (one example from the 2000 conversational ASL corpus), is necessarily new information, and is not topic-marked, although we might say that it is then what the discourse to follow is about. Yet there seems to be no clear dividing line between sentence-level and discourse-level topics, in that a sentence-level topic may hold as a reference point over a number of ensuing comments/utterances, and so could be said to operate at a discourse level as well, if not quite the same way as the discourse-level topics as discussed above.

The ASL data presented here suggest that a top-down categorical definition of topic is not viable given the variability regarding what types of items can occur as marked topics, their level of givenness, or their relation to other parts of the utterance, most expressly, the comment. Perhaps most importantly in this regard, in a top-down definitional approach, is that it is difficult to account for the topic as reference point as largely determined by the signer's intersubjective assessment of the addressee's knowledge store, the addressee's ability to identify the piece of information, or their willingness to accept something as an acceptable orientation to another referent or the overall informational unity. It is unsurprising that a number of researchers express dissatisfaction with broad definitions of topic.

On the other hand, a bottom-up approach, that is, looking first at occurrences in contextualized discourse in a specific language to see how particular items function, can tell us something about what *that* item is like in *that* language, but generalizations may not apply to other languages, and therefore the item needs to be considered and characterized only in a language-specific way. For ASL, the data suggest some reevaluation is needed of what exactly "topic" means and which constructions might fit this notion, and which do not. It may be the case that "topic" as a categorical label does not capture what a wide spectrum of data reveal. The possibility suggested here is to begin with Langacker's reference-point construction analysis, which seems to account for more topic-like constructions along with others that are difficult to construe as topics as defined by more traditional approaches.

Notation key

HAPPEN	word in all caps = an English gloss for an ASL word
GOOD.FRIEND	gloss words separated by a period = more than one English
	word is required to gloss a single ASL sign
L-A-K-E	a fingerspelled word
PRO.1	1s pronoun
PRO.2	2s pronoun
PRO.3	3s pronoun
POSS.1	possessive 1s pronoun
POSS.3	possessive 3s pronouns
DRINK+++	Extended or repeated movement in the articulation of the verb
#BK	a fingerspelled "loan" sign, where the fingerspelling is
	truncated

	(here it would be B-A-C-K), considered as a lexical form
	(Battison 1978)
[]-ТОР	topic marking concomitant with the entire phrase inside the
	square brackets
[]-NOD	nodding
[]-NEG-NOD	negative (side to side) nodding
[]-WH-Q	a wh-question
[]-E-N	eyes narrowed
[]-BR	brow raise (Wilbur & Patschke's 1999 term)
_a GO.TO, GO.TO _b	subscript letters (a, b, c) indicate a spatial location where the
	onset or offset (depending if the subscript precedes or follows
	the gloss) of the verb form is positioned (or an entire signed
	element is positioned) in space
(rh)	right hand; may also appear as a subscript
(lh)	left hand; may also appear as a subscript
(bh)	both hands
NEG	particle indicating negation
NEG.NOD	negative, side to side head movement
emph	emphatically
CL:X(descriptor(s))	a "classifier" construction; X = handshape label; descriptors
	further clarify the action

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Topic vs. Allocutive in the Language into Act Theory. Corpus-based research on spoken Italian

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Abstract

The paper presents the corpus-based comparison between the Topic and the Allocutive information units within the Language into Act Theory framework. The Topic is defined as the field of application for the illocutionary force of the Comment and is necessarily performed through a prefix prosodic unit preceding the Comment. The Topic's functional, morpho-syntactic, frequency, prosodic characteristics, and semantic restrictions are detailed. Then, vocatives are introduced, highlighting their broad use that can extend from directive illocutionary types (calling) to forms of dialogic support (Allocutive). Allocutive can be defined as a device of social/empathic cohesion and attention reactivation, which is clearly distinguished because of flat and defocused prosody preferentially occurring after the Comment. The Allocutive's detailed functional, frequency, lexical, and prosodic description follows. Allocutive's semantic constraints are usually limited to bare nouns and proper names, but corpus observation shows that deictic expressions and, more generally, any referential descriptions are not attested in corpus and are competence rejected. Based on this observation, a comparison is made between Topic and Allocutive. The paper argues that no interpretation ambiguity can occur between an information structure composed of a Topic-Comment or an Allocutive-Comment pattern, even if an identical sequence of words fills them. It depends on the respective prosodic performances and their semantic values. While the Topic is characterized by an identifiable reference, needed for an adequate field of application for the illocutionary force, the Allocutive makes its nominal fillings lose a referential interpretation in favor of a designatory reading required by its cohesive function.

Keywords: Topic; Allocutive; prosody; reference; designation.

1. Introduction

Figures 1 and 1a represent a possible case of ambiguity in interpreting two utterances with the same lexical sequence and word order: (1) is a real corpus example, and (1a) is a competence example of a mother tongue speaker in a laboratory performance.

(1) LIA: Virgilio / TOP ha un tumore al cervello // COM

'Virgil_i, (0_i) has a brain tumor' 1

%ill: conclusion [ifamcv01-573]

(1a) *ABC: $sai / {}^{CNT} Virgilio_z / {}^{ALL} ha un tumore al cervello (Mario_i) // {}^{COM}$ 'you know, Virgil_z, (0_i) has a brain tumor (Mario_i)' %ill: conclusion [lab. example]

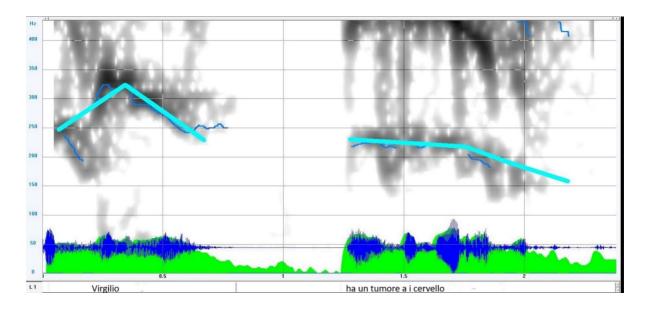


Figure 1: F0 tracks of example (1).

¹ The Italian examples and their English translation are not codified according to the Leipzig Glossing Rules. What is relevant in this paper is the tagging of the information structure and illocution characterization of utterances based on the prosodic performance. These features are not foreseen in the LGR and conversely are testified by Figures that report f0 tracks calculated with Winpitch. Given that noisy signals are frequent in spontaneous speech, we present the f0 face to the first or second harmonic.

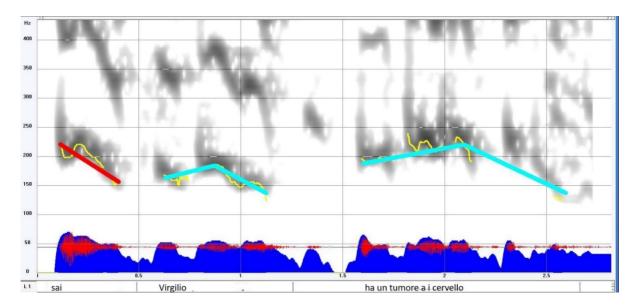


Figure 1a: F0 tracks of example (1a).

The utterances correspond to two information patterns: (1) to a Topic-Comment and (1a) to an Allocutive-Comment structure. (1) is performed through a prosodic pattern composed of a focused prefix unit and a root unit, while (1a) is performed through a defocused unit and a root unit, as evidenced by the f0 tracks.² They are perceptively relevant to native speakers that distinguish them and consequently interpret the proper name, Virgilio, respectively, with a referential value in Topic or a designatory value in Allocutive as a peculiar type of vocative (see 5.3).

The paper will argue on the interpretation of vocative expressions, known in the literature as "the puzzle of vocatives" (Coene et al. 2019). As shown in the previous examples, we propose that according to the Language into Act Theory - that is, our reference framework - the difference between (1) and (1a) depends on their information structure, respectively composed of a Topic or an Allocutive information unit before the Comment unit. For a different explanation, let's remember the proposal of Lambrecht (1996) who considers both Topic and "vocatives" at the

² Prosody is evaluated as f0 contours composed of a simple movement (rising, falling, holding) or several movements in sequence. In this paper, the f0 contours are aligned to the information units. The contour is identified on the f0 track, evaluating its perceptual relevance. After each movement is perceptually identified, it is manually annotated on the f0 track as it is shown by the Figures. The perceptual relevance of every single movement is confirmed by observing whether the annotation fits the glissando threshold provided by Winpitch. Glissando is the rate of f0 change above which a melodic change is supposed to be perceived. The glissando threshold determines the perceptual boundary between a static pitch and a melodic variation. The threshold was established using a semitone scale (Rossi 1971; 1978; Hart 1976; Martin 2018).

beginning of the sentence - but also anti-Topic and "vocatives" at the end of the sentence - as all cases of NPs detached from the proposition. They would be distinguished for an unspecified and essentially irrelevant pragmatic value. Not considering the specific prosodic realization of Topic and Allocutive, it is impossible to appreciate their different frequencies, their specific morphosyntactic fillings, and semantic restrictions, and finally, the common iteration of the Topic face to the incongruity of that of Allocutive, all data derived from corpus observations (see Table 1).

The paper is composed of five parts. The Introduction (1) presents a possible case of ambiguity which justifies the comparison between the Topic information unit and that of Allocutive. The first part (2) briefly illustrates the Language into Act Theory. The second part (3) presents the definition of the information function of the Topic (3.1), the prosodic and distributive characters, the morpho-syntactic exemplification of referential (3.2) and modal Topics (3.3), and the frequency and iteration of the unit (3.4). The third part (4) presents three paragraphs on the semantic restrictions of Topic (4.1), the comparison between Topic and subject (4.2-4.3), and the semantic restrictions on modal Topics (4.4). The fourth part (5) deals with the broad usage of vocative expressions, with three paragraphs on the state of the art on Vocatives (5.1) and the fundamental distinction between their illocutionary and dialogical functions (Conative, Allocutive), with particular attention to the latter (5.2-5.3). The fifth part (6) regards the semantic restrictions on Allocutive. It consists of three paragraphs on the possible ambiguity of interpretation with Topic (6.1), its referential and modal constraints (6.2), and finally, the designatory reading of Allocutive (6.3). The paper ends with a short conclusion (7) and table 1 that outlines the main features of the Topic and Allocutive units.

2. Premises of Language into Act Theory

The Language into Act Theory (L-AcT) is a speaker-oriented approach to studying spoken language based on the affective speaker's behavior toward the addressee. Its theoretical reference is the Human Birth Theory (HBT) by Massimo Fagioli (Fagioli 1972; Polese et al. 2022).

Affect is considered at the origin of every speech act (according to Austin 1962) and is characterized by the emergence of the pulsion intended as an exclusively

human property (Fagioli 2019).³ Affect must be distinguished from all emotional states, which are mere physiological reactions of the subject to generic stimulus lacking intentionality toward the partner (Damasio 2000; Scherer & Schorr 2001). Affect is still a reaction to an external input, but it is significant from a human point of view. It is driven by a content of thought that is positively (interest) or negatively (hate) marked concerning the addressee. It is conveyed to the addressee as a speech act with a specific conventional illocution (Cresti, fothcoming).

Prosody is the means to manifest and perform speech acts. In the ontogeny, prosody expresses the newborn's affective communication before he realizes language. Prosody presides over the linguistic formation in the child's development.

According to L-AcT, the accomplishment of speech can correspond to two basic pragmatic entities. Primarily utterance (90%) according to IPIC data (Panunzi & Gregori 2012; Cresti et al. 2022b),⁴ which is directly supported by an affect and a pragmatic program toward the addressee, and secondarily stanza, which is a sequence of weak speech acts added outside a program by following the flow of the speaker's thought (Chafe 1994) rather than a strong interaction exchange with the addressee (Cresti 2000, 2010; Panunzi & Saccone 2018). Utterances and stanzas are considered the reference units for the speech analysis concerning which frequency of phenomena can be analyzed and measured (Ize'el et al. 2020).

Prosody performs reference units by delimiting their boundaries within the speech flow with highly perceptible prosodic cues (terminal breaks). Prosody also regulates the information structure internal to the utterance through non-terminal prosodic breaks, the types of information units depending on their different functions (information pattern). It shapes the prosodic units (root, prefix, suffix, parenthetical) through perceptively relevant prosodic contours ('t Hart et al. 1990). Prosodic units are dedicated to implementing different information functions (Comment, Topic,

³ *Pulsion* is a technical term within the HBT. Pulsion is species-specific to human beings and is opposed to instinct, which is specific to other animal species.

⁴ DB-IPIC is an online resource that allows one to browse and perform complex searches on spoken corpora annotated following the L-AcT principles. It is designed to host corpora with prosodic segmentation and information structure. The resource is composed of an XML database, and a web interface for corpus querying. DB-IPIC currently contains an Italian corpus of 74 texts (124,735 total words) chosen from the Informal section of Italian C-ORAL-ROM (Moneglia & Cresti 2005, Cresti 2000, Cresti & Moneglia 2018a), and three small comparable corpora (mini-corpora) of Italian (IT), Spanish (ES) and Brazilian Portuguese (BP). These last two are derived from C-Or-DiAL and from C-ORAL-BRASIL (Raso & Mello 2012).

Appendix, Parenthesis). There is a one-by-one correspondence between the information pattern and the prosodic pattern manifesting it (Moneglia & Cresti 2006).

The core of the information pattern is the Comment unit, which is specifically devoted to accomplishing the pragmatic action founding the utterance (illocution) and is necessary and sufficient to achieve the latter. The Comment is performed through a prosodic unit of the root type, which records many formal variants conveying specific illocutionary types. A rich taxonomy of corpus-based illocutionary types has been developed deriving from empirical and experimental investigations that make their correlation with formal prosodic variants (Firenzuoli 2003; Rocha 2016; Cresti 2017; Cresti 2020; Cresti & Moneglia 2023).

The information pattern of an utterance can be composed of many information units beyond the necessary Comment, and within this frame, the Topic is identified and defined (Moneglia & Raso 2014). Topic is the most relevant information unit beyond the Comment. It is usually assumed that the information structure is bipartite depending on the relation between the Topic and the Comment.

Much corpus-based research has been dedicated to the study of Topic in the framework of L-AcT (Firenzuoli & Signorini 2003; Signorini 2005; Malvessi-Mittman 2012; Cavalcante 2015; Cresti & Moneglia 2022; Cresti 2023). They are based on the systematic transcription, text/sound alignment per utterance, and analysis of broadly spoken corpora (French, Italian, Brazilian Portuguese, Spanish, and American English) and spoken Chinese is underway (Cresti et al. 2022a; Luo 2025).

3. Topic

3.1. The Topic

In L-AcT, the Comment is considered the necessary core of the Information Pattern, and its definition is based on an affective and pragmatic nature. This assumption changes the definition and interpretation of what is generally shared in the literature about the information structure that is based on a logic trajectory: the Topic is considered the semantic start of the utterance – or the sentence – linking it to the context and is followed by the new information conveyed by the Focus (Krifka & Musan 2012). Thus, in some sense, it is from the Topic that the Focus would be conceived.

Conversely, the pragmatic perspective of L-AcT foresees that the speaker starts to speak following his affect (pulsion) toward the addressee and depending on this internal input, he intentionally moves to behave pragmatically to accomplish a Comment. The other information units, which are all optional comprising Topic, are performed on the spot by the speaker, considering their opportunity concerning the addressee and the situation. Still, the affective and pragmatic intention regarding the Comment must already exist; otherwise, no linguistic production can be implemented. The function and distribution of each information unit, indeed, is defined in relation to the Comment and, in some cases, strictly depend on the illocution and semantics of the latter.

This is especially true in the Topic since its function is to provide the field of application of the Comment's illocution, thus being directly selected by the force qualities (see paragraph 4). The speaker's intention to accomplish a Comment with a specific force is a precondition for the Topic. L-AcT's perspective overturns the common assumption that the Topic would constitute the contextual condition of the Comment – or Focus –, because so doing the speaker's affective input giving rise to speech activity and pragmatic interaction with the addressee is ignored. Depending on its specific information function, Topic cannot be part of the Comment information and must also be realized by a dedicated prosodic unit (prefix).

The Topic is classified among the set of Textual information units participating in the semantic filling of the utterance. To the task, the Topic must be implemented with an adequate reference for the Comment illocution. It must constitute a sure and stable "semantic scene" characterized by qualities allowing its representation and identification in isolation by the addressee. This condition implies some semantic restrictions (see paragraph 4).

Before proceeding with the exposition of the Topic's semantic constraints, it is necessary to consider the aspect of its prosodic realization, which in literature is often not considered for its functional definition. Conversely, according to the L-AcT's mandatory request for the performance by prosody of each information unit, it must be noticed that the Topic is performed through a dedicated prosodic unit of the prefix

⁵ Within a perspective of morphosyntax-prosody mapping a Prosodic Hierarchy is proposed. It corresponds to a prefix-stem-suffix structure (Selkirk 2011; Scheer 2011), therefore the prosodic performance of the Topic could be in a generic way referred to the investigation on what is called prefix within these frameworks. Still, the breadth of the phenomena covered by the informative function of the Topic goes beyond morpho-syntactic predetermination and criteria of its description and identification diverge from those for prefix.

type, recording four canonical variants according to research on corpus data and laboratory experiments (Cavalcante 2015; Barbosa & Raso 2018). Let's see Figure 2:

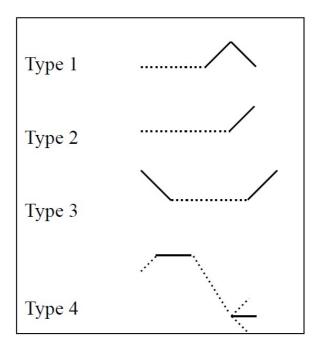


Figure 2. The four canonical variants of the prefix unit (Cavalcante 2015).

Figure 2 represents the four types of contours of the prefix prosodic unit, marked at its end by a non-terminal prosodic break. Prefix units necessarily occur before the Comment unit which in turn is performed by an independent prosodic unit of the root type, the prosodic characteristics of which we cannot discuss here (Cresti 2020; Cresti & Moneglia 2023). The continuous lines represent the shape of the f0 nuclear contour occurring on the necessary tonic syllables, while the dot lines correspond to optional transition parts that may be composed of a free number of syllables. In Italian, the most widely used type of the prefix contour is the first, as can be seen from the f0 tracks shown in the example figures.⁶

Given the pragmatic perspective developed in L-AcT, the performance of a Topic also implies a speaker's choice toward the addressee manifested through the necessary means of prosody. The function of the Topic is not achieved out of the prosodic performance by one of these prefix variants. The assignment of the Topic function to

⁶ At the state of the art, only occasional semantic correlations have been found for the types of prefix units. However, different languages demonstrate clear preferences for one type rather than another, which could therefore depend on factors of accentual structure. Martin (2018) leans towards a right-hand dependence dictated by the overall prosodic structure of the utterance.

a linguistic expression does not depend on features like givenness, animacy, definiteness, presupposition, relevance, aboutness, or communicative dynamism, as assumed in a large part of the literature (Reinhardt 1981; Givon 1983; Chafe 1994; Lambrecht 1994; Krifka & Musan 2012; Cimmino & Saccone in this volume). The Topic-Comment relation is pragmatic and not semantic. The motivation for the speaker to produce a Topic information unit consists of making a reference available to the addressee to facilitate and ensure the latter's interpretation of the illocutionary action he is about to accomplish through the Comment (Cimmino 2016; Cresti & Moneglia 2018). It is the affective intention toward the addressee that gives origin to speech and affect is embodied by prosody. Prosody, indeed, leads the speaker's production signalling the information function of each unit. Thus, Topic can be objectively recovered a posteriori for its formal features of prosodic performance and distribution before the Comment. However, this does not mean that the definition of the Topic is entrusted only to its prosodic identification but through its functional adequacy as field of application of the illocutionary force of the Comment. Prosody is the necessary means for the content to achieve its functional value toward the addressee.

It can be verified that, in effect, the fillings of the Topic are often given, definite, animate, and so on (Mello & Silva 2022).⁷ Still, no one of these features can be considered necessary, as it is testified by both literature and corpus data. Specifically, Topic is not restricted to given contents that can be new from the point of view of their occurrence in the common ground, as in (6), or are modal adverbial and adjectival phrases, as in examples from (11) to (14). The speaker's evaluation feature of these expressions is evident, and it is new by default since it cannot be deduced from the common ground.

On the contrary, corpus investigation demonstrates that the semantic content of whatever unit realized through a prefix unit occurring before the Comment show the systematic correspondence and consistency with an overall function of reference for the illocutionary force. The prosodic prefix performance ensures the accomplishment of the Topic function while the semantic filling may vary, although it presents some semantic constraints due to the specificity of the function (see 4).

⁷ This probabilistic approach shows that there are about five times more chances that an NP animate, definite, and given, when performed in Topic, is also the "subject", i.e., the assignor of agreement of the verb in Comment (see paragraph 4.2).

The Topic is not a necessary information unit, as the Comment is. Still, if the speaker conceives it for the addressee, this information unit is placed before the Comment to fulfil its function. The distribution of the Topic before the Comment is necessary, even if the contiguity is not requested, since the Topic and Comment can be interspaced, for instance, in (12), by a parenthetical insertion.

Given that the information pattern is centred on the illocutionary accomplishment of Comment, the idea of a so-called function of the anti-Topic or post-posed Topic doesn't make much sense (Lambrecht 1996). What follows the Comment, Appendix in L-AcT, cannot represent the field for applying the illocutionary force. The Topic is "affectively" given to the addressee before the Comment to facilitate and ensure its pragmatic interpretation. Following the Comment, Appendixes have a backward direction, developing an overall illocutionary mitigation and agreement attitude offered to the addressee (Cresti 2021, Cresti 2023). The Appendix is an adjunct functioning as a non-relevant completion of the utterance content already implemented. Corpus data show that the Appendix is manifested by typical fillings, which are unable to perform the function of field of application of force as Topic does. They are mostly empty repetitions, closing formulas, and secondary complements of the Comment's content and are realized through a low, flat, and almost devoid-of-intensity prosodic unit (suffix).

3.2. Referential Topic

According to Italian IPIC data (Panunzi & Gregori 2012), Topic fillings can cover many morpho-syntactic expressions belonging to both referential and modal domains (Moneglia & Cresti 2022), provided they can represent an adequate field of application for illocution.

These are some quantitative data of Topic fillings: noun phrases (55,2%), verbal phrases and subordinate clauses (37%), adverbial clauses (9,2%), prepositional phrases (12,5%), adjectival phrases (0,5%) (Cresti & Moneglia 2018; Moneglia & Cresti 2022; Cresti 2023).

Let's see examples of Topic's referential types filled by definite and quantified phrases, circumstantial clauses, and adjectival phrases:

(2) *VAL: il marito/ TOP conta poco // COM

'the husband, (he) matters little'

%Ill: assertion of evidence [ifamcv18]

- (3) *CIC: un po' di gruzzolo / TOP lo hai fatto / COM no ? PHA
 'a little nest egg, did you do it, didn't you?'
 %ill: request for confirmation [ifamcv14]
- (4) *ANN: a Firenze / TOP c'hanno tutte queste idee... COM
 'in Florence, they have all these ideas...'
 %ill: expression of obviousness [ifamcv26]
- (5) *FRA: fin quando non li apri / TOP i sapori rimangono buoni // COM
 'until you open them, the flavors remain good'
 %ill: constatation [ifamcv06]
- (6) *NIC: blu / TOP non c'è // COM

 '(colored in) blue, there is nothing'

 %ill: surprise/contrast [ifamcv09]

Among the various referential Topic fillings, we must underline that proper names are good candidates for this function. See example (1) and (7), which records a feminine proper name preceded by a definite article:⁸

(7) *ZIA: *la Ginetta / TOP aveva diciotto mesi / COM quando mi sposai // APC*'(the) Ginetta, (she) was eighteen months old, when I got married'
%ill: narration [ifamn01]

A specific filling of Topic is constituted by deictic expressions (personal pronouns, adjectives, time and space adverbs) representing nearly 10% of Topics (IPIC data):

(8) *LIA: questo / TOP è i' San Gottardo // COM

'this, (it) is the Saint Gotthard'

%ill: assertion of evidence [ifamcv01]

⁸ The process of derivation of the Italian definite article from the Latin demonstrative pronoun *ille* started to distinguish a single and known object. Then the use was extended for generally identifying noun phrases. In many Italian regional varieties, it can precede feminine proper names.

```
(9) *ALD: te / TOP tu curi più il lavoro... COM

(as for) you, you take care of work more...'

%ill: expression of obviousness [ifamn14]
```

```
(10) *NIC: anzi / INP per ora / TOP fallo tu // COM

'on the contrary, for the moment, it is up to you'

%ill: order [ifamcv09]
```

In paragraph 6.2, we'll see that the deictic expressions, as in examples (8), (9), and (10), and feminine proper names preceded by a definite article, as in (7), represent a negative test bench for Allocutive since the previous expressions are not attested, and competence is rejected with this function.

3.3. Modal Topic

Expressions of modal value, such as adjectival and adverbial phrases and hypothetical subordinate clauses preceding the Comment and adequately performed through a prefix unit, have been considered suitable for performing the Topic function. However, their recognition as expressions, satisfying the requirement of being a reference identifiable by the addressee, could create perplexity. Within the pragmatic framework of L-AcT, modal Topics are interpreted as a window to the speaker's attitude about his own illocutionary activity (Moneglia & Cresti 2022). Modal Topics constitute independent semantic scenes, making explicit for the addressee the speaker's point of view on the illocutionary activity he intends to enact. So doing, they function in any case as an identifiable reference for the addressee, even if not external, but concerning the speaker himself, and can legitimately perform the information function of the Topic. ⁹

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⁹ Within the important body of work by Ferrari and his team – known as the Basel Model – on Italian written texts (Ferrari 2014) it is proposed a distinction between the function of Topic and that of Frame. The latter often coincide for semantic and syntactic features with modal Topics. According to Basel Model, the Topic represents the aboutness of a predication and may participate to the foreground information of the same nucleus. Conversely, the Frame is detached from the nucleus and is part of the background information together with parenthetical inserts. In the case of background units occurring at the beginning of utterance, their definition is based on semantic and in some sense "perceptual" features because they have a broad scope, their content opens up to the previous context, creates connections and remains active in the subsequent context. In speech, no such distinction arises at the

It's worth noticing that in IPIC data, out of 2,500 utterances with a Topic, about 200 are in effect modal. Let's see some examples of adverbial phrases and subordinate hypothetical clauses:

- (11) *DAN: praticamente / TOP aveva parlato Cofferati // COM 'practically, Cofferati had spoken'
 %ill: report [ifamcv23]
- (12) *SIL: perché secondo me / TOP comunque / PAR lui era proprio così // COM 'because in my opinion, anyway, he was just like that' %ill: conclusion [ifamcv12]
- (13) *ALE: bene o male / TOP facevamo il quarto // COM 'one way or the other, we were doing the fourth' %ill: evaluation [ifamcv14]
- (14) *LUC: *se ero ancora da operare / TOP magari un'sarebbe andato // COM*'if I were going to undergo a surgery operation, he might not have gone'

 %ill: (counterfactual) hypothesis [ifamcv22]

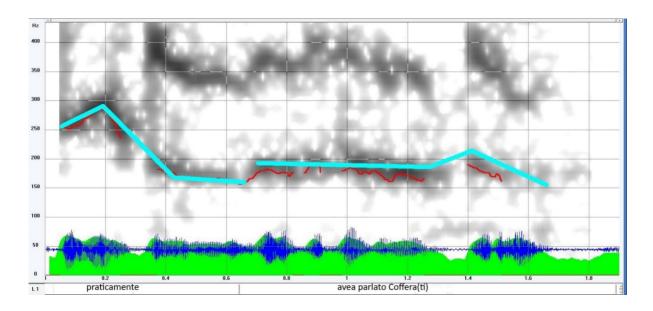


Figure 3: F0 tracks of (11).

utterance level, because a Topic cannot be part of the same nucleus within the Comment but must be detached from it. So, the distinction with Frame vanishes. In particular, the distinction between foreground and background aspects is not pertinent to the definition of the Topic information function as the field of application of the illocutionary force of the Comment.

Even if Topic allows such a large variety of morpho-syntactic fillings, its function imposes semantic restrictions. For instance, no adverbial phrases of manner have been found with the Topic function. Given that they develop a compositional relation of verb modification, they lack the semantic condition to represent an independent domain of reference for the addressee.¹⁰ Only adverbials with a modal meaning and a sentence scope represent an independent scene expressing the speaker's point of view and being adequate to function as a Topic.¹¹

Let's see some competence examples. (15) is an acceptable instance whose manner adverb (*lentamente*) constitutes a modification of the verb participating in the sentence configuration within a Comment unit.

```
(15) *ABC: (lei) ha mangiato lentamente la sua colazione // COM

'she slowly ate her breakfast'

%ill: narration [competence ex.]
```

Conversely, in (15a), the adverb should perform a Topic function, but an utterance like this is not attested, and we assume that it is not "allowed" because of its semantic inadequacy. Of course, its foreseen prosodic performance must be considered to appreciate its absence in data.

```
(15a) *lentamente / TOP ha mangiato la sua colazione // COM 'slowly, she ate her breakfast'12
```

Still, keeping the linear word order, manner adverbs can develop a Comment function. In (15b) and (15c), it is specifically the adverb that conveys the illocution

¹⁰ The concept of manner, *maniera* in Italian, covers a wide domain of phenomena which, depending on the research perspective, vary from adverbs to verbal phrases of manner to tools for carrying out an action. Among them, the characterizations of the manner inherent in the verbal seeds can also be considered (Corona & Pietrandrea 2022). The exclusion from the Topic function observed in the corpus is limited to adverbs and adverbial phrases of manner.

¹¹ The class of manner adverbs are mostly covered by lexemes morphologically composed of the Latin suffix *-mente*, like *lentamente*, *allegramente*, *gentilmente*. Still, there are also adverbs composed in the same way, like *praticamente*, whose primary meaning is modal, and are consequently good candidate for the Topic function (De Cesare 2022).

¹²(15a) is an example that was not found in corpus, and which is rejected by competence. All the examples of this type are introduced by an only asterisk and not by an asterisk and three letters which by L-AcT convention signal the speaker.

of answer and one of contrast. At the same time, the verbal phrase is conceived as a unit of the Appendix that is performed through a dedicated suffix prosodic unit. The content of the APC works as an echo repetition of the possible question (*how did he eat his breakfast*?) preceding (15b) or preceding (15c), as a contrastive expression of respect (*this time, he ate his breakfast quickly*).¹³

```
(15b) *ABC: lentamente / COM ha mangiato la sua colazione // APC 'slowly, she ate her breakfast'
%ill: answer [competence ex.]
```

(15c) *ABC: LENTAMENTE / COM ha mangiato la sua colazione // APC 'SLOWLY, she ate her breakfast'
%ill: contrast [competence ex.]

3.4. Iteration and Frequency of Topic

The frequency of the Topic reaches nearly 20% of utterances (IPIC, Panunzi & Gregori 2012). This frequency is also obtained considering that Topics can be iterated within an utterance, mostly in complex textual sequences, reaching a consistent percentage (approx. 10% of utterances with Topic). (16) shows a sequence of two referential Topics, a subordinate clause, and a noun phrase, interspaced by a Parenthesis unit:

(16) *EST: pagando il pacchetto clienti / TOP ovviamente / PAR estetica Silvana / TOP è una ditta che è aperta dal sessantadue // COM

'paying the customer package, obviously, Silvana aesthetics, (it) is a company that has been open since 1962'

%ill: arguing [ifamdl15]

A sequence of a modal adverbial and a referential Topic is also possible, as in (17).

¹³ According to the illocutionary classification of L-AcT, *contrast* is a speech act which cannot be enacted by an information function of Topic, developing only the field of application of the Comment illocution within the utterance. Contrast is an illocutionary type of the Expressive class belonging to the subclass of belief (Cresti 2017, 2020).

(17) *SAB: $sicché / {}^{DCT}niente / {}^{INP}praticamente / {}^{TOP}a fine marzo / {}^{TOP}noi ci s' aveva già i biglietti // {}^{COM}$

'so, nothing, practically, at the end of March, we already had the tickets' %ill: narration [ifamdl09]

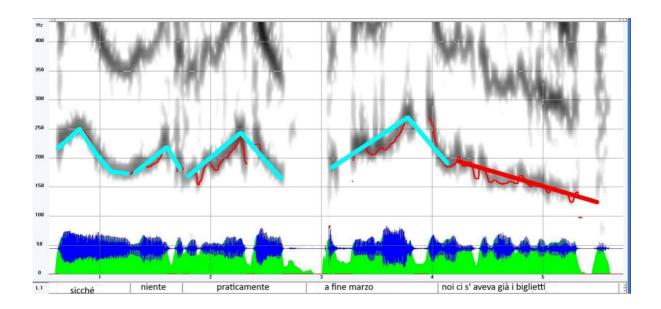


Figure 4: f0 tracks of (17).

The iteration of Topic and its significant percentage represent another feature of distinction from Allocutive, whose iteration is semantically incongruent (see 5.3).

4. Semantic constraints of Topic

4.1 Semantic constraints on the Topic function

As we anticipated, semantic constraints exist for the Topic's fillings. Referential expressions in Topic are submitted to the requirement to give rise to an identifiable reference for the addressee; thus, pure anaphoric pronouns, ¹⁴ negative pronouns, and indefinite phrases have not been found in the corpus and are assumed not to be adequate to fulfill the Topic function. Indeed, they are not sustainable, even from a

¹⁴ There should be no confusion between the Italian purely anaphoric pronouns as *esso*, which cannot be interpreted through an *hic et nunc* reference, and deictic pronouns like *io*, *tu*, or *questo*. The latter indeed make up about 10% of the lexical fillings in the Topic and conversely the first has never been attested in this function and is competence rejected.

competence perspective. For instance, let's look at the fictitious examples (18), (19), and (20).

```
(18) *esso / TOP è stato risolto recentemente // COM 'it, was solved recently'
```

```
(19) *una signora / TOP si è risentita e offesa // COM 'a lady, (she) was resentful and offended'
```

```
(20) *nessuno / TOP gli voleva bene // COM 'nobody, (he) loved him'
```

The exclusion of interpretation of the previous pronouns and indefinite phrases from a Topic function is not evident if their prosodic performance is not considered. They could be interpreted as subjects, but they are not. ¹⁵

To better evaluate this difference, one must consider that a noun phrase can develop a Topic function within the Topic-Comment information pattern of the utterance, and in that case, it must be necessarily performed and isolated in a prefix unit. Otherwise, keeping the same word order, the noun phrase can be integrated within the compositional structure of a sentence, of which it constitutes the subject. Overall, the sentence develops a Comment function performed by a root unit.

We did laboratory experiments asking speakers to perform *esso*, *una signora*, and *nessuno* in the fictitious instances (18), (19), and (20) through a prefix prosodic unit to realize a Topic. The resulting performances are uncertain, recording pauses between the expected expressions in Topic and the rest of the utterance. They give rise to a separated sequence of two chunks, whose interpretation is judged odd. Otherwise, speakers have prosodically integrated these expressions within the same prosodic unit of Comment together with the predicate, constituting an acceptable unitary entity, substantially a sentence.

For comparison, let us see (18a), (19a), and (20a), in which the nominal expressions are prosodically performed within the root unit of Comment and work as sentence subjects. These examples are acceptable on a competence basis, although such instances are rarely found in spoken corpora. Actually, only (20a) is a positive corpus datum.

¹⁵ Mello & Silva (2022).

(18a) *ABC: esso (il problema) è stato risolto recentemente // COM 'it (the problem) was solved recently'

%ill: explanation [competence ex.]

(19a) *ABC: una signora si è risentita e offesa // COM

'one lady became resentful and offended'

%ill: report [competence ex.]

(20a) *ANG: nessuno gli voleva bene // COM 'nobody loved him'

%ill: narration [ifammn20]

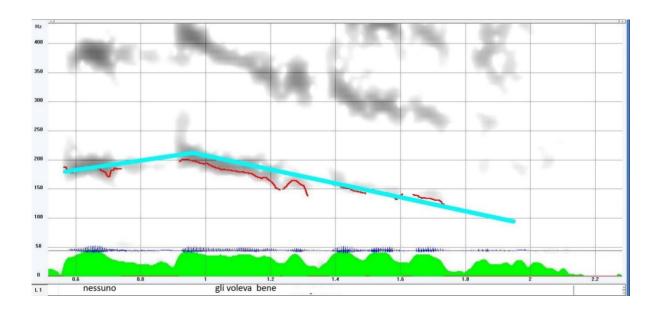


Figure 5: F0 tracks of (20a)

The f0 tracks of (20a) clearly show the prosodic integration of the negative pronoun *nessuno* within the Comment, thus developing a subject role in the sentence structure.

4.2. Topic and subject

The syntactic definition of subject can be synthesized as that of assignor of agreement to the verb in the sentence and from a semantic point of view themes, agents, experiencers or beneficiaries can assume this role. Still, the distinction between Topic and subject remains open since also some Topics can be filled by contents sharing

these semantic properties. Accordingly, a Topic could play the semantic and syntactic role of subject and subject the information function of Topic. ¹⁶

In the L-AcT frame, the two notions are independent the one from the other (Cresti 2005). The oddness of the fictitious utterances in (18), (19), and (20), indeed, can be directly connected to the identifiability requirement stated in the definition of the information function of Topic, while this condition does not regard the subject. The Topic constitutes a semantic scene conceived by the speaker to put the field for illocution in place for the addressee, and it must be identifiable by itself. Conversely, the subject doesn't constitute a semantic scene independently conceived and is not performed through a dedicated prefix unit since it doesn't develop an information function alone. The subject is compositionally integrated with a predicate within a syntactic sentence whose propositional content tends to the truth.

The Topic-Comment pattern implies a pragmatic relation at the information level, and the scenes fulfilling the respective functions are independent and develop: the Topic – the field of application for the illocution, and the Comment – the accomplishment of the illocution. The semantic content of each scene is conceived and governed by its own perspective depending on the information function. A dedicated prosodic unit, a prefix for Topic, and a root for Comment perform each unit.

It is a corpus finding that a large part of the Topic scene doesn't correspond to an individual but to space, time, deictic, or adverbial references. Anyway, if there is an individual in Topic coreferential with the assignor of agreement in the predicate of Comment, within L-AcT it is assumed that the assignment is not direct but is given by an anaphoric relationship between the individual in the first scene of the Topic and a zero pronoun in the second scene of the Comment, as in (1) (*Virgilio* $_i$ / TOP (O_i) ha un tumore al cervello // COM). 18

The relationship between the subject and the predicate in the propositional entity doesn't regard the information level, which is ruled depending on Comment (illocutionary act), but syntax and semantics, which concern the locutionary act (Austin 1962). The subject-predicate relationship at the locutionary level composes only one scene that must be self-sufficient and governed by a unified perspective. In

¹⁶ We mention in this regard a classic reference in the literature, such as Li & Thompson (1976).

¹⁷ It must be remembered that more than 40% of utterances are not accomplished by assertive illocutions and therefore neither they are composed of a subject-predicate syntactic structure, nor their semantic content is committed to the truth.

¹⁸ According to a shared assumption in generative linguistics (Graffi 1994).

this case, if the subject is co-referent with the verbal person of the predicate, it directly assigns the agreement. In real speech, propositions with subjects lexically implemented are not frequent, especially in the Romance languages. Concerning pragmatic performance, sentences with a lexical subject mainly develop a Comment function preferentially accomplishing neutral assertive illocutions, as in (20a) (nessuno gli voleva bene // COM). Of course, the Comment is performed through only the root unit, as seen in Figure 5.

4.3. Comparison between the Topic and the subject in the corpus

The different types of relationships occurring within the two couples of Topic-Comment and subject-predicate become evident in crucial language structures, such as nominal predicates, especially with equative values.

Let's compare the corpus instances (21), (22), and (23), where the nominal expressions are performed as the Topic within a Topic-Comment pattern, with the fictitious counterparts (21a), (22a), and (23a), where the same expressions are performed as subjects of nominal predicates in a sentence, developing an only information unit of Comment. While the first series has a plain interpretation, the second leads to peculiar interpretative results or nonsense.

In the first series, the prefix performance of Topic signals that the speaker makes the expression available to the addressee as a granted reference for the Comment.

Let's see (21):

(21) *MIC: Marlon Brando // COM *MIC: Marlon Brando / TOP è Marlon Brando // COM 'Marlon Brando_i, (0_i) is Marlon Brando'

%ill: assertion of evidence [Ifamdl01-546]

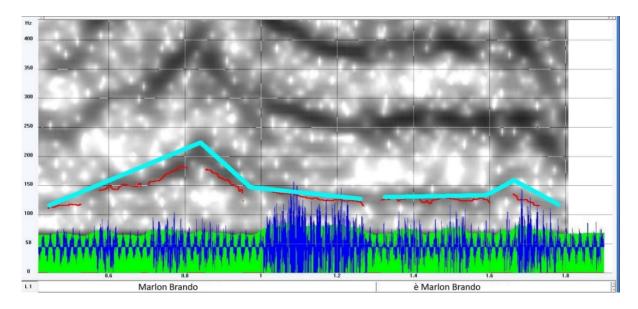


Figure 6: f0 tracks of (21).

We have reported the context of the examples since the Comment in the previous utterance ensures that the Topic's scene is identified. The interpretation of (21) concerns Marlon Brando, presented as an identifiable individual, already introduced in the context and repeated in the Topic's scene. Then, the proper name *Marlon Brando* can be interpreted in the Comment's scene as the typical characteristics of Brando's personality instead of the already assumed individual. This semantic "enrichment" is made possible by the illocutionary value of the Comment, which is an assertion of evidence belonging to the strong assertive sub-class, implying the speaker's evaluation (Cresti 2020; Cresti & Moneglia, forthcoming). In conclusion, the same proper name *Marlon Brando* is used two times in the utterance but each time it participates to an independent information function: Topic and Comment. Each scene has its own reference, and the relationship between them is provided and mediated by the assertion of evidence. There is no tautology.

Let's take now (22):

(22) *ANT: *quando uno recita* / ^{TOP} *deve dare un po' di se stesso al personaggio* // ^{COM} 'when somebody plays, he must give something of himself to the character' %ill: explanation

*MIC: eh / TMT cioè / PHA se stesso / TOP non deve esistere nel... (cinema)// COM 'himself_i, (0_i) ought not to exist in the ... (movie)'

%ill: arguing [Ifamdl01]

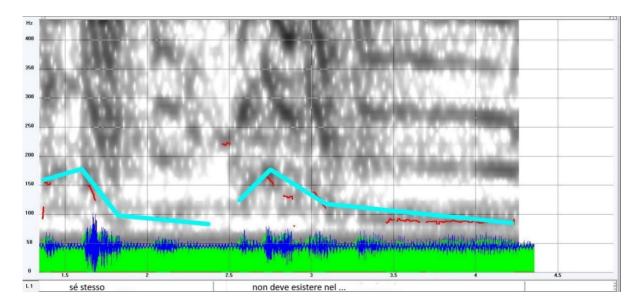


Figure 7: F0 tracks of (22).

The interpretation of (22) introduces in the Topic's scene the reference to the set of properties that identify the "personal identity" (se stesso) that is taken from the previous turn. The Comment argues that the "personal identity" should not influence an actor when he is playing. The relationship between the two scenes is meaningful.

Let's see also (23):

(23) *LUI: (queste) possono essere utilizzate solo come uscite // COM l'accesso / TOP è il cubo // COM

'(these) can be employed only as exit. The admittance $_i$, (0_i) is the cube.' %ill: conclusion; explanation [Ifamcv16]

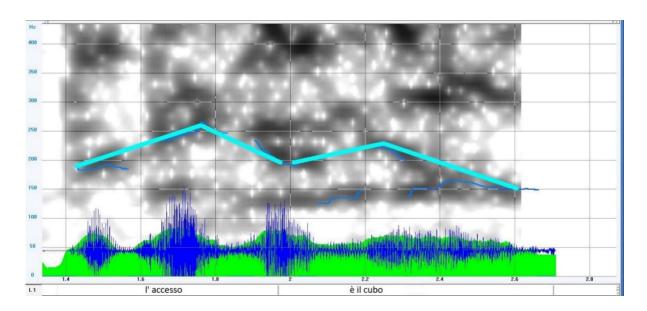


Figure 8: F0 tracks of (23).

In (23), the Topic-Comment structure is compulsory to get the actual interpretation. In the Topic scene, the admittance is identified through the opposition with the term *exits* in the previous utterance. In turn, the Comment accomplishes an assertion whose content is a predicate of identification. The semantic result is not a linear equative relationship between two individuals within the same scene but the pragmatic relationship (explanation) between two individuals participating in two distinct scenes. The core scene is the "representation as a cube" in the Comment, and the premise is the reference to an independently identified individual, "the admittance" in the Topic. Thus, the addressee can identify the entrance into the world relying on the admittance because of the explanation in the Comment. The addressee doesn't have another possible interpretation.

Considering the second series, the nominal expressions previously used to fill the Topic are integrated into fictitious utterances as the subject of a sentence:

```
(21a) *Marlon Brando è Marlon Brando // COM 'Marlon Brando is Marlon Brando.'
```

```
(22a) *Se stesso non deve esistere nel ...(cinema) // COM 'Himself ought not to exist in the ... (movie)'
```

```
(23a) *L' accesso è il cubo // COM

'The admittance is the cube.'
```

Crucially, in (21a), (22a), and (23a), the interpretation and even the acceptability changes.

In (21a), two identical proper names refer to the same person and participate in an equative predicate. One scene is composed of two individuals, and no referential distinction between them is possible since they are functionally unified within the Comment by the same assertive illocution. Thus, the interpretation of the sentence can only be a tautology.

In (22a), *se stesso* remains an unreferenced reflexive pronoun that cannot even grammatically develop a subject role, and the resulting interpretation of the sentence is nonsense.

Then, the interpretation of (23a) is ambiguous, giving origin to a case of notdecidability about the actual entrance between the admittance and the cube. It depends on the fact that two equally definite noun phrases participate in an equivalence predicate forming one scene. In this case, the possibility of an independent reference of one between the two individuals is also missing. Lacking an external reference does not ensure a clear choice of what the entrance is.

Therefore, to make interpretable non-semantically saturated contents, such as negative pronouns, pure anaphora, and indefinite sentences, as in (18a), (19a), and (20a), the subject can "profit" from the semantic content of the predicate within the same scene thus giving a context to these kinds of expressions and saturating their meaning. Conversely, these same expressions cannot serve as Topic, as we can appreciate in (18), (19), and (20), because they are not semantically sufficient to constitute a scene that must be per se identifiable.

Still, the subjects of sentences recording attributive and equative predicates must submit to semantic restrictions relating to the properties of the nominal part in the predicate, as in (21a), (22a), and (23a). Conversely, if the same nominal expressions – that are semantically adequate – develop the information function of Topic, as in (21), (22), and (23), they are freed from the constraints of the sentence compositionality. There is no direct equative relationship between two individuals within a scene but a functional relationship between two individuals participating in scenes, each provided with its own reference and mediated by illocution.

4.4 Semantic Restrictions on Modal Topic

It must be highlighted that there are semantic restrictions on modal Topics specifically depending on the illocutionary type of the Comment (Moneglia & Cresti 2022).¹⁹ For instance, restrictions concern the fact that the point of view of the modal Topic is that of the speaker or that of the addressee, depending on specific illocutionary types such as *evidentiality assertion* and *request for confirmation*, according to the L-AcT tagset (Cresti 2017).

An assertion of evidence is an assertive act based on a modal premise in the Topic that places the speaker's point of view as a guarantee of the act. In this regard, they offer the addressee a positive evaluation in the Comment (Cresti 2020). Let's see (24).

¹⁹ The following constraints on modal Topic have not been reported in literature since they can be appreciated only on corpus-based research which also considers the prosodic alignment and functional and illocutionary identification of utterances.

(24) *ABC: *a mio parere* / TOP faresti bene a partire // COM 'in my opinion, you would do well to leave' %ill: evidentiality assertion [competence ex.]

Still, the point of view, but this time referred to the addressee, cannot be assumed as the Topic's premise of an evidentiality assertion, as results evident in (24a).

```
(24a) ??* a tuo parere / TOP faresti bene a partire // COM '?? in your opinion, you would do well to leave'20
```

A request for confirmation is a directive act aimed at the addressee's linguistic behavior. It starts with the speaker's positive hypothesis about something in the Topic, which can also be extended to comprehend the addressee's opinion (Cresti & Moneglia 2023). In (25), the Comment makes a request for agreement to the addressee that is inappropriate if it regards the addressee's program.

```
(25) *ABC: a tuo parere / TOP farei (faresti) bene a partire? COM

'In your opinion, would I (you) do well to leave?'

Will: request for confirmation [competence ex.]
```

Still, this positive hypothesis excludes the speaker's opinion, which cannot, in any case, be asked for confirmation by the addressee (25a).

```
(25a) * a mio parere / TOP farei (faresti) bene a partire? COM 'in my opinion, would I (you) do well to leave?'
```

Of course, the semantic constraints on modal Topics can be extended to many other cases depending on specific illocutionary types that we cannot cover in this article.

However, there are also semantic constraints on modal Topics since deontic modality that implies a mandatory condition for the addressee is not an adequate filling for the Topic function. We want to notice the exclusion of deontic adverbials. As a matter of fact, no adverbial phrases introducing deontic modality as, for instance,

²⁰ Different illocutions permit the use of an utterance like *In your opinion you would do well to leave*. Provided that it accomplishes an expressive illocution that report the addressee's thinking in the whole, by criticizing it.

per forza ('absolutely'), magari ('even' in its deontic sense), obbligatoriamente ('compulsory'), bisognerebbe ('must'), have been, indeed, found in corpus with Topic function and result odd to competence judgment.

These adverbs cannot develop a modal Topic since they represent physical, legal, or religious rules that exist per se in the world, and are considered mandatory conditions, external to the speaker, and valid for the speaker and the addressee. Thus, they cannot be given as a modal Topic representing the personal speaker's point of view.

We must proceed in a comparison between two utterances: the first, the real (11), with a Topic-Comment information pattern whose Topic is a modal epistemic, and the second, the fictitious example (11a), with a deontic adverbial filling the Topic, which has no application:

```
(11) *DAN: praticamente / TOP aveva parlato Cofferati // COM

'practically, Cofferati had spoken'

%ill: report [ifamcv23]
```

(11a) *obbligatoriamente / TOP aveva parlato Cofferati // COM 'compulsorily, Cofferati had spoken'

As in all the other fictitious examples, the hypothetical prosodic realization of (11a) according to a prefix unit must be considered. However, the example shows how giving the addressee an obligation as the textual premise of a report doesn't make much sense.

The utterance could have been accepted if it had been formulated with a referential Topic in a Topic-Comment pattern, as in: "since he had been compulsorily requested /TOP Cofferati had spoken // COM." In so doing, the obligation would have been presented in the Topic as an external real condition.

Of course, if the prosodic performance corresponds to a root type and, as in (11b), the deontic adverb can fulfill a Comment accomplishing a strong expressive force, followed by a repeated verbal phrase in the Appendix, the utterance should be accepted.

```
(11b) *DAN: obbligatoriamente / COM aveva parlato Cofferati // APC 'mandatorily, Cofferati had spoken'
%ill: expression of agreement [competence ex.]
```

5. Allocutives

5.1 The state of the art on vocatives

What is called Allocutive within L-AcT is usually dealt with in the literature under the term *vocative*.²¹ Still, grammars, at least in the Romance tradition, had given little space to this subject that was traced mostly under other phenomena such as allocutive pronouns (Serianni 1985; Micali 2022)²² or in research on textual aspects concerning the addressee of a letter, salutations, greetings, and forms of dedication and citation (Abeillé & Godard 2021). ²³ It is generically assumed that bare nouns without determiners and absolute generic noun phrases (*whoever you are*) are set off from the rest of the utterance to mark the addressee. They constitute an isolated prosodic unit in speech and are separated or encapsulated phrases by commas in writing. However, there is general agreement that proper names, nouns of family roles (*mom*, *dad*), names of professional roles (*professor*, *doctor*, *boss*, *man*), appellative adjectives (*dear*, *honey*, *rogue*), and respectful adjectives (*her majesty*; *his holiness*) are the most common candidates to be vocatives.

Among the scarce references for Italian, we would like to mention the chapter by Mazzoleni (1995) specifically dedicated to vocatives. The Author gives a detailed description of Italian usages, emphasizing the possibility of introducers of vocatives since they can be preceded by vocal supports (*o lei*, *o coso*, *a bella*).²⁴The internal structure of the noun phrase is detailed: it can include affective adjectives (*caro*, *bravo*), nouns preceded by the third person demonstrative pronoun (*quel giovane*), nouns integrated by personal adjective and pronouns (*sua eccellenza*, *lor signori*), nouns crucially followed by the first possessive pronoun (*figlio mio*, *amica mia*), vocative pronoun modified by a relative clause (*tu che mi ascolti*). Proper names, nicknames, titles, terms of kinship, and social relationships are the most frequent fillings of vocatives.

²¹ See the introduction to vocative by Sonnenhauser & Noel (2013).

²² This definition is commonly shared (Micali 2022). For example, in Italian the 2^{nd} person singular tu is considered the natural allocutive pronoun and reverential pronouns are the 2^{nd} person plural voi and third person singular feminine lei.

²³ The meaning of the term vocative is given as 'marking someone addressed' (Merriam Webster).

²⁴ Conversely, Serianni (1985) considers the vocatives not introduced as the real vocatives calling them *absolute*.

The most interesting question concerns the definition of vocative's function. Mazzoleni generally considers that vocative is an appeal to the addressee, identifying and addressing him. According to a shared definition, he assumes that vocatives behave as a deictic device and refer to the addressee as a 2nd person. Moreover, he distinguishes between two functions of vocatives: a call as a real appeal that makes someone become an interlocutor participating in the exchange and an address to an interlocutor already inserted in the communicative situation to reactivate his attention. Mazzoleni also underlines that the first function, the call, is used in isolation, waiting for an answer or some reaction from the referred person. In contrast, in the second function, the address is inserted into the utterance with a substantially free distribution. There are constraints in the choice of the lexical expression filling the vocative depending on the two functions.

Regarding the function of vocatives, we can also refer to English grammars, even if marginally dealing with the phenomenon. For instance, in Quirk et al. (1985), the distinction between the two functions of the vocative is confirmed: a call drawing the attention of the person addressed, pulling them out of others in hearing, and an address, expressing instead the speaker's relationship or attitude to the addressee.

On corpus data of American and British English, Biber and colleagues (1999) highlight the importance of vocatives in defining and maintaining social relationships between participants in conversations. Two distributions are signaled: initial at the beginning and final at the end of the utterance. The final distribution, which records the highest frequency, stresses the social relationship with the addressee, while the initial distribution is mainly dedicated to prompting attention.

5.2 The L-AcT perspective: illocutionary and dialogical functions of vocatives

In agreement with the literature but also because of observations on the corpus, we assume that vocatives develop two distinct functions that can be sketched as:

- A call to make someone a participant in the communicative exchange,
- An address to reactivate the addressee's attention and maintain social relationships.

However, within the L-AcT framework, the two functions must be distinguished because "calling to make someone a participant in the communication" implies the accomplishment of an illocutionary force, and "maintaining the social relationships while

_

²⁵ This basic functional distinction retraces to Zwicky (1974).

getting the addressee's attention" regards only a kind of information support. They work at different levels of the information structure of the utterance since a necessary Comment unit accomplishes the illocution, and optional dialogical units may implement the information support. The two functions are respectively performed through dedicated prosodic units.

In the literature, scarce attention is reserved to the prosodic performance of vocatives except for signaling their isolation from the rest of the utterance, and specifically, no correlation with the prosodic contours of different functions is noticed. ²⁶ Conversely, the attention to the prosodic performance, as a compulsory request of L-AcT, leads to finding systematic correlations between prosodic contours and different functions.

For illocutionary functions, making someone to participate in the communication requires the speaker to open the closed communication channel or share a new attentional focus with the latter. These features define the directive illocutionary types of *distal* and *proximal calls* (Cresti 2017). Suppose someone is far away or not visible, and the speaker wants to make him appear and get in touch. In that case, the vocative expressions accomplish a directive act of distal call, performing the addressee's proper name or appellative very loudly, and the addressee is, in effect, dealt with as a 2nd person. As with all directive acts, the distal call is aimed at the addressee's behavior, who, in this case, is pushed to appear. The distal call is typically realized in isolation since it waits for the addressee's reaction.

The prosodic performance of the distal call corresponds to a rising contour to a high level and a hold on the post-tonic vowel, which is prolonged and characterized by high-intensity values. In (26), a child calls her dog, who ran away in a public garden.

```
(26) *NIP: Arturo // COM
'Arturo'
%ill: distal call [prvcvl62-panc]
```

The call is connotated by an attitude of insistence and maybe of concern.

²⁶ The most important contributions in the Auto-segmental model for the prosodic description of vocatives refer to what is defined "vocative chants" (Ladd 2008; Frota & Prieto 2015). However, no clear identification of the Allocutive function among vocative usages is provided.

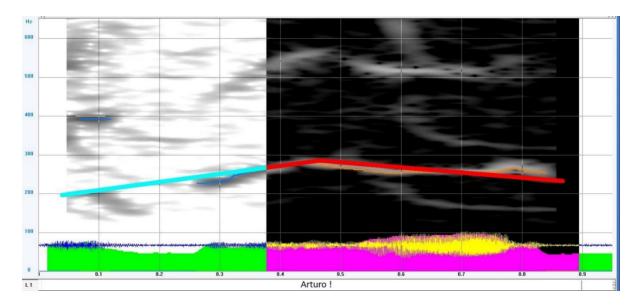


Figure 9: F0 tracks of (26).

However, finding a spontaneous example of a distal call in the corpus is not easy. In contrast, the proximal call is more common and regards an addressee in the context but not involved in the dialogue exchange. The act aims to share the focus of attention and is realized in isolation. It is performed by a rising contour with a lower range of f0 than that of a distal call.

Let's see (27). Three workers are repairing a roof; even though they are close together, the situation is dangerous, and one calls a companion to get his attention.

%ill: proximal call [prvcvl63-plum]

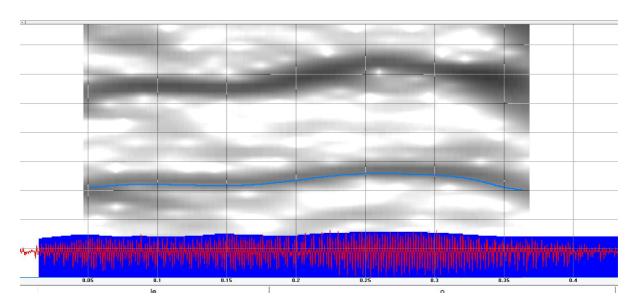


Figure 10: F0 tracks of (27).

However, the most common way to accomplish a call is to perform it together with another directive act within an *illocutionary pattern* named *functional calling* (Cresti 2000; Panunzi & Saccone 2018). This Illocutionary pattern is composed of a first Comment of proximal call (CMM) followed by a second Comment (CMM) implementing a kind of request (order, challenging question, reproach,...) to the addressee.

The pattern of the functional calling is directed to the addressee who is near and is alerted through his name or appellative to behave in a specific way: intervening, answering, or excusing. Let's see (28), (29), and (30):

- (28) *CLA: Giovanni / CMM l'acqua // CMM
 'John, water'
 %ill: proximal call + order [ifamcv 17]
- (29) *MAR: sì / INP babbo / CMM falla finita di recitare // CMM

 'yes, dad, stop acting'

 %ill: proximal call + protest [ifamdel19]
- (30) *ELA: e te / CMM quanto tu c' avevi ? CMM 'and you, how old were you?'
 %ill: proximal call + wh-question [ifamcv01]

Let's notice that the addressee is referred to as a 2^{nd} person, and even the deictic personal pronoun (*you*) can fill the proximal call as in (30).

The prosodic performance of the functional calling corresponds to a first raising contour that is not very high and short, which lowers a little and appears cut, remaining still interpretable in isolation. It is immediately followed by a second prosodic contour of the adequate form to convey the second directive force.

We can also consider many other illocutionary types that use bare nouns – comparable to vocatives – to perform specific acts such as invocation, introducing people, acts of expressive class for offense, challenge, or respect, and kinds of welcome and greetings (Biber et al. 1999, Borras et al. 2015).

All are preferably accomplished in isolation and through specific prosodic contours. However, the article cannot address their prosodic performances and lexical constraints.

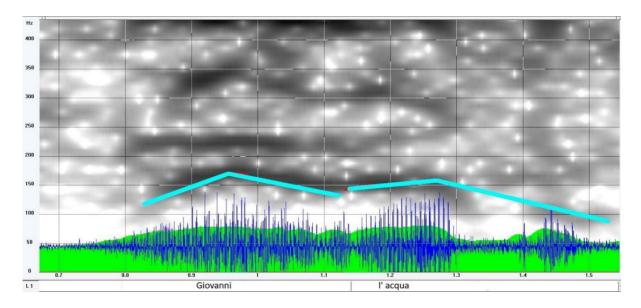


Figure 11: F0 tracks of (28).

5.3. Allocutive

The general communication objective of getting the addressee's attention is implemented in speech as optional support to the utterance by Dialogical information units. In this case, the utterance conveys an illocutionary force through its necessary Comment unit since the channel is supposed to be already open, and the attentional focus is shared when these Dialogical units are played.

However, the communication objective of getting the addressee's attention can be achieved through different Dialogical unit types, i.e., Conative and Allocutive (Raso 2014; Raso & Leite 2010; Raso & Ferrari 2020). Both Dialogical units are performed through dedicated prosodic units that can be generically described as *defocused* if compared with the root unit, which performs the Comment, which is always focused. The two functions have been identified in corpus observation (Cresti 2000; Frosali 2008; Raso & Leite 2013; Raso & Ferrari 2020) and are defined within the L-AcT standard tag set according to Moneglia & Raso (2014) as follows:

- Conative pushes the addressee to participate adequately in the exchange, inducing them to perform, stop, or avoid a communicative action already underway.
- Allocutive identifies the addressee, looking for his attention but simultaneously establishing a personal connection with him.

²⁷ Devices realizing optional communicative support, within L-AcT treated as Dialogical units, are mostly considered in literature Discourse Markers (Schiffrin 1987; Bazzanella 1995).

We cannot devote a satisfactory description of the Conative unit to this article; we only want to provide some useful features for a better distinction concerning the Allocutive unit.

Let's see typical examples of Conative (31) and (32):

- (31) * LAK: *a me tu me ne dai una / com vai // cnt* 'to me you give me one, go' %ill: request [ifamcv14]
- (32) *ART: questo lo fa Lorenzo / COM guarda // CNT 'this is up to Lorenzo, look' %ill: constatation [ifamdl04]

In Italian, the Conative function is mainly associated with verbal forms, adverbs, connectives, and formulaic expressions (depending on regional varieties). It's worth noticing that *figées* verbal forms such as *wait*, *look*, and *hear*, when performing conative functions, lose their denotative meaning, getting a generic value of "pushing" to activate the addressee. In comparison, vocative expressions are rarely attested in the Conative function, while they systematically fill the Allocutive function.

However, the concept of attention-seeking shared by Conative and Allocutive must be restricted to define the latter's usage better. Let's then move on to some fundamental features of Allocutives: first, the function of social and empathic cohesion (Biber et al. 1999; Moneglia & Raso 2014; Raso & Ferrari 2020).

Let's see typical examples of Allocutives which show poor correspondence with a pushing attitude in favor of contacting the addressee:

- (33) *GAL: di solito si fa così / COM Marco // ALL

 'It's usually done like this, Marco'

 %ill: reproach [ifamcv14]
- (34) *MAX: queste son belle / COM mamma // ALL 'these are beautiful, mom'
 %ill: appreciation [ifamcv01]

(35) *LUC: *lui disse / INT me la piglio io / COM-r nini // ALL-r* 'he said: I'm the one getting it, boy' %ill: reported speech [ifamcv22]

(36) *LEO: *la fascetta / TOP indo' la va / COM Marco ? ALL* 'the band, where does it go, Marco ?' %ill: partial question [prvcvl63-plum]

(37) *WAL: ammazzai due vipere / COM ieri /APC Leo // ALL
'I killed two vipers yesterday, Leo'
%ill: narration [prvcvl63-plum]

The prosodic realization of Allocutive corresponds to a smooth, falling, and flat contour whose post-tonic syllable may be hypo articulated. The intensity is low, and the duration is medium. The complex of these characteristics causes its poor perceptual prominence.

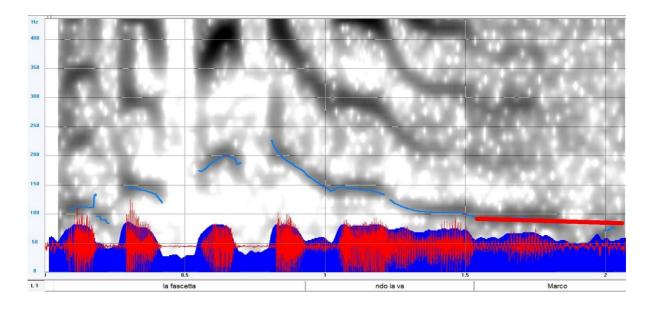


Figure 12: F0 tracks of (36).

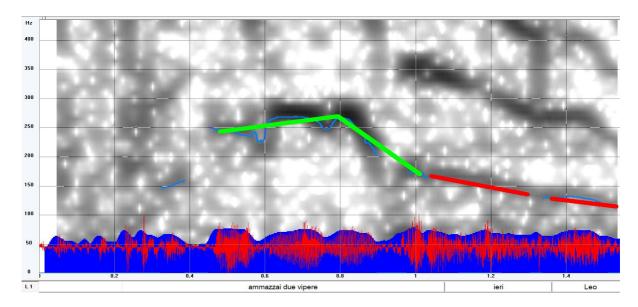


Figure 13: F0 tracks of (37).

The final distribution, too, confirms the weakness of the appeal of Allocutive. Agreeing with Raso, we verified that Allocutives mainly occur after the Comment. However, it is possible to find instances before the Comment in Italian, preferably if it is not at the absolute beginning of the utterance (see 5.1).

The frequency of Allocutive reaches approximately 1% of Italian utterances, which is in line with the values of the other Dialogical units.

It must be noticed that no case of Allocutive's iteration has been found, while Topic's iteration represents nearly 10% of occurrences (see paragraph 6.3).

In conclusion, prosody confirms being a distinctive feature that allows us to find a systematic correlation between the different functions of vocatives regarding illocutionary forces (Comment), realized through dedicated prosodic units of the root types, and information functions of support, as Allocutive, realized through a falling/flat and defocused prosodic unit.

6. Semantic constraints on Allocutive

6.1 Possible ambiguity between Topic and Allocutive

Corpus data show that Allocutives in Italian rarely occur before the Comment; anyway, they are by preference, not at the absolute beginning of the utterance. The distributive cases are the following:

- a) after Topic, Incipit, and Conative
- (38) *VAL: *eh* / ^{TMT} *allora* / ^{INP} *Michela* / ^{ALL} *ti racconto il viaggio di nozze* // ^{COM} 'eh, then, Michela, I'll tell you about the honeymoon travel' %ill: narration [ifammn08]

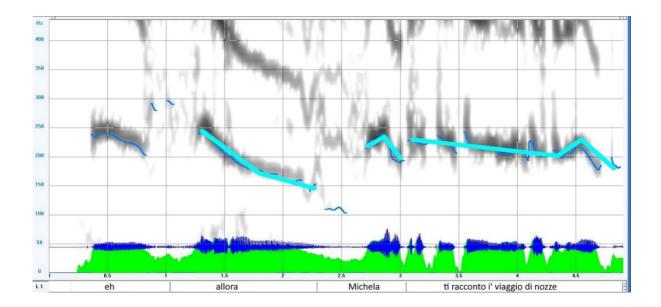


Figure 14: F0 tracks of (38).

- b) interspacing an interrupted Comment, between i-COM and COM
- (39) *MAX: te / TOP ci sei stata / I-COM Emanuela / ALL a Lecce? COM

 'you, have you been there, Emanuela, in Lecce?'

 %ill: request for confirmation [ifamcv17]
- (40) *ALE: lo sai / i-COM piccolo / ALL s'è rotto il video-registratore? COM 'did you know, baby, the video recorder broke?'
 %ill: complaining [ifamcv15]
- c) at the beginning of a Reported utterance
- (41) *IDA: allora dico / INT [Antonio / ALL_r guarda / CNT_r pretty woman / TOP_r esiste in televisione // COM_r]

'then I say: Antonio, look, pretty woman, exists only on television' %ill: reported speech [Ifamdl20]

As the F0 tracks show in Figure 14, when Allocutive occurs before the Comment, its prosodic unit is slightly different from the one distributed after the Comment. Its intensity value is higher than that at the end of the utterance but still records an unfocused contour.

The distribution of Allocutives before the Comment might create ambiguity between the interpretation of Topic and Allocutive, as assumed in literature (Lambrecht 1996). We need to go back to example (1) and the competence example (1a), where the same wording corresponds to a different information structure recording at the beginning of the utterance with an Allocutive in the place of the Topic.

```
(1) *LIA: Virgilio / TOP ha un tumore al cervello // COM

'Virgil<sub>i</sub>, (0<sub>i</sub>) has a brain tumor'

%ill: conclusion [ifamcv01-573]
```

(1a) *ABC: sai / CNT Virgilio / ALL ha un tumore al cervello (Mario) // COM

'you know, Virgilioz, (0i) has a brain tumor (Marioi)'

%ill: conclusion [lab. example]

The F0 tracks in Figure (1a) and (1b) show that the two information functions are distinguished for their respective prosodic realizations: the Topic shows a prefix prominence, while the Allocutive is defocused, and does not give rise to a perceptually relevant unit. Thus, although the distinction is subtle, it is ensured by perceptual data.

However, even though native speakers know that they are different, their interpretations are not clear. What does it mean that Topic and Allocutive are correctly interpreted according to two distinct functions? What are the "puzzling" semantics conveyed by Allocutives?²⁸

6.2 The Referential Constraint on Allocutive 29

Although the wording in examples (1) and (1a) is the same, we must remember that the lexical filling of Topic is broad, implying even modal adverbials, while that of

²⁸ See in literature what has been called the puzzle of Vocatives (Coene et al. 2019) but also the many facets of explanation in Sonnenhauser & Noel (2013) show the intriguing nature of this phenomenon.

²⁹ The term *constraint* doesn't depend on a normative attitude but, in addition to the fact that these uses are not attested, they are also not allowed by the competence, of course always on the condition that their adequate prosodic performance is taken into consideration.

Allocutive is quite reduced. Corpus data show that the set of expressions considered in the literature within overall vocative functions is further reduced in the Allocutive function. For instance, no noun phrases and pronouns followed by a relative clause (*you who listen to me*) or reverential nouns preceded by possessive adjectives (*his excellence*) are attested to develop this function. Only a restricted class of bare nouns – not preceded by determinate articles and quantifiers – can work.

For instance, in many Italian varieties, when a feminine proper name develops a Topic function, it can be preceded by a determinate article, but it is "banned from the Allocutive function. Let's see the real example (5) and an artificial one (5a) where the same name in the Allocutive function can be used only if the definite article is rejected.

```
(5) *ZIA: la Ginetta / ^{TOP} aveva diciotto mesi / ^{COM} quando mi sposai // ^{APC} 'the Ginetta<sub>i</sub>, (0<sub>i</sub>) was eighteen months old, when I got married' %ill: narration [ifamn01-170]
```

(5a) *ABC: $senti / {}^{CNT}$ (*la) $Ginetta / {}^{ALL}$ aveva diciotto mesi (la Carla) / COM quando mi $sposai // {}^{APC}$

'(you know,) (*the) Ginetta $_z$, (0 $_i$) was eighteen months old (the Carla $_i$), when I got married'

It is well known that definite articles are banned from vocatives in Romance languages (Rohlfs 1966; Moro 2003). However, some exceptions are attested, as in the well-known case of French, and the explication of their usage is controversial (Coene et al. 2019; Bernstein et al. 2019; Bernstein forthcoming). In this regard, we want to take up again the distinction between vocatives used as fillers of illocutionary acts of call and those used as fillers with cohesive functions. Italian corpus data show that when developing an Allocutive function, nouns and proper names are always employed without definite articles. This makes it emerge that in the Allocutive function, vocatives are used out of a referential usage as a kind of literal citation or metalinguistic value, as suggested by Serianni (1985).

Following this trace, we also notice that no deictic expressions have been found in the corpora in the Allocutive function, and competence judgments reject these expressions. This contradicts the fact that vocatives are commonly and generally defined as deictic devices in literature (Mazzoleni 1995; Lambrecht 1996; Sonnenhauser & Noel 2013; Bernstein et al. 2019).

The deictic restriction can be verified in the comparison between the actual instance (9), where a deictic pronoun (*you*) develops a Topic function, and the artificial one (9a), in which the same deictic expression has been postponed testing its interpretability as Allocutive.

```
(9) *ALD: te / <sup>TOP</sup> tu curi più i' lavoro... <sup>COM</sup> 'you, you take care of your work more...' %ill: expression of obviousness [Ifammn14]
```

```
(9a) *tu curi più i' lavoro / COM te // ALL

*'you take care of your work more..., you'
```

Even if the necessary variation in prosodic performance is not taken into account, the only possible interpretation of the postponed occurrence of *te* in (9a) would be as an irrelevant adjunct that develops an Appendix function, but indeed not a form of empathetic cohesiveness with the addressee.

For instance, in the real example (42), the occurrence of a deictic pronoun of the 2^{nd} person develops an Appendix function realized through a suffix unit. It is clearly distinguished from the appellative *nini*, a vocative with the Allocutive function preceding it. This expression is appropriately realized through a defocused unit but is longer and higher than the suffix unit realizing the Appendix.

```
(42)*MAR: icché tu fai / COM nini / ALL te? APC 'what are you doing, boy, you?' %ill: wh-question [ifamcv22-168]
```

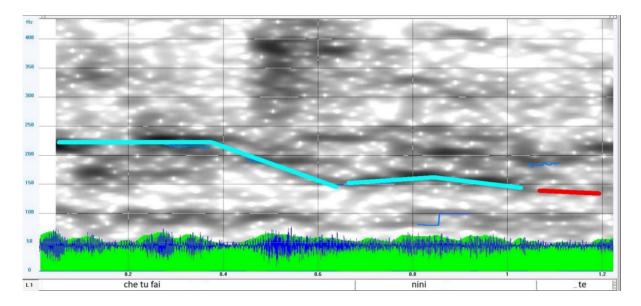


Figure 14: F0 tracks of (41).

The constraint on deictics is relevant since it shows that the content of an Allocutive function of social and empathic cohesion cannot be searched for in the world by referring to the *hic et nunc* situation, which is the proper characteristic of deixis. The constraint is impressive compared with the 10% of deictic Topic's filling, enacting a clear referential function.

The use of possessive adjectives with a noun goes in the same direction since, in the Allocutive function, only the first-person pronoun is allowed and must follow the noun; otherwise, the cohesive function fails.³⁰

(43) *ANT: paranoia totale / COM figlio mio // ALL 'total paranoia, son of mine' %ill: negative evaluation [ifamdl01-838]

Other possessive pronouns are competence-banned. Let's compare the real example (43) with the artificial (43a), showing the inappropriateness of other personal pronouns:

(43a) *paranoia totale / COM figlio tuo (suo) // ALL *'total paranoia, your son / his son'

³⁰ The order with the adjective before the noun is possible only with *figée* expression as *mia cara*.

It means that the possessive pronoun must signal only the relationship that the noun (son) expresses with the speaker (see 6. 3). In this regard, the exclusion of 2^{nd} -person possessive adjectives appears particularly relevant because it highlights how the Allocutive cannot be considered a reference to the addressee as a 2^{nd} person. Of course, we can imagine other phrases developing the Allocutive function, such as *amica mia* (my friend) and *tesoro mio* (my treasure), provided they maintain the same relationship with the speaker.

Conversely, nominal phrases with all kinds of possessive pronouns, preceding or following the noun, are typical fillings of Topic and serve to develop identifiable references, even if external to the relationship with the speaker. Let's see (44) and (45):

(44) *ANT: *il nostro testimone di Geova / TOP non ci ha fatto studiare Manzoni // COM*'our Jehovah's Witness_i, (0_i) didn't let us study Manzoni'
%ill: sarcasm [ifamcv23-66]

(45) *JAK: a casa tua / TOP c'è il tavolo così // COM
'at your house, there is a table like this'
%ill: constatation [ifamcv14-17]

In addition to the fact that a whole series of examples are not attested in the corpus, the competence constraints regarding definite articles, deictics, and 2nd person-possessive pronouns reveal that the Allocutive function excludes the referential identification of the addressee. An apparent logical contradiction appears: the addressee's attention should be developed by the speaker with the latter's proper name, title, or role noun, but any reference to him in the world is excluded.

6.3 The function of designation by Allocutive

We distinguish between using vocatives as Comments to express mainly illocutionary forces of call, that refer to the addressee as a 2^{nd} person, and the aim of social and empathic cohesion toward the addressee as developed by the Allocutive. The L-AcT corpus-based functional distinction – corroborated by evidence of prosodic performance – allows us to overcome the semantic collapse proposed in the literature,

which, in an undifferentiated manner, considers the uses of vocatives as deictic devices.

Our investigation instead shows how the illocutionary uses of the vocative can be considered forms of direct reference to the addressee, while the function of the Allocutive deviates from this possibility by introducing a nominal expression as a *designation* of the addressee (Kripke 1980). The term designation denotes a word or group of words by which a person or thing is regularly known. The Allocutive's designation can be defined as the addressee's labeling made by the speaker through a proper name, an appellative, or a role noun, excluding any referential interpretation. The designatory interpretation of the Allocutive allows us to complete the distinction between this set of expressions with the function of Topic and that of Allocutive, which, beyond the same wording, have respectively a referential meaning compared to an exclusively designatory one.

However, it must be remembered that the addressee's designation made through the Allocutive performs only an auxiliary support function for an illocution already active in the Comment. In this regard, a schematic description of an act of deixis can help us make the difference between the auxiliary function of support of an Allocutive and an illocutionary act of deixis. The speaker, through deixis, makes the addressee fulfill an empty expression with content obtained by ostension in the context. Deixis is usually filled by a 2nd person pronoun (*tu*), a demonstrative pronoun (*questo*), a space adverb (*qui*), and a time adverb (*ieri*), getting their reference as a function of the situation. It implies the speaker's prompt to direct the addressee's attention to a specific part of the context that can be referred to as a shared denotation (prominence). This means that deictic expressions change their denotation from situation to situation.

Thus, it becomes clear why deictics cannot perform the Allocutive function. Given that deictics must be necessarily interpreted through their contextual reference, an addressee cannot be "baptized" by ostension without the speaker assigning him a "title" to serve as a designator. More generally, not only deictics but all types of phrases with a referential value, such as determinate and quantified nominal phrases, are inadequate to fulfill this function. Moreover, the cohesive support of the Allocutive is based precisely on the designation also shared by the addressee.

Thus, Allocutives cannot be considered as referred to the addressee intended as a 2^{nd} person. Allocutive are not deictic devices but an addressee's designation through

which the speaker signals his closeness, and it is only indirectly that the Allocutive also "friendly" reactivates the addressee's attention.

This explains why Allocutives can be filled only by a restricted lexicon revealing the relationship between the speaker and the addressee. They are conceived within a perspective of social and empathic cohesion, which is the first and specific function of Allocutives.

The typical lexical classes developing the designatory function are the following:

- Proper names signaling the speaker's knowledge of the addressee,
- Appellatives signaling the affective and evaluative speaker's consideration of the addressee,
- Role noun signaling the family or professional speaker's position with respect to the addressee.

The designation made by the Allocutive is, in a certain sense, redundant because the speaker makes explicit bonds of kinship, friendship, and emotional relationships with the addressee that are well-known by the latter. Still, it is making them explicit that gives them cohesive value. The communication strategy is somehow the opposite of that implemented with the Topic, often characterized by implicit presuppositional aspects (Lombardi Vallauri 2019).

A referential device cannot accomplish the specific way Allocutive reactivates attention on the utterance; it is only done through an addressee's designation. Thus, we can also figure out why no case of Allocutive's iteration has been found in the corpus, while Topic's iteration represents nearly 10% of occurrences.

The Allocutive function, acting as a rigid designator, cannot be repeated with a content variation, while the Topic content can be integrated and detailed (see paragraph 3.4). Let's see the fictitious examples (33a) and (34a) where a double Allocutive should introduce a different labeling of the addressee, thus obtaining an effect of estrangement rather than empathic cohesion:

```
(33a) *di solito si fa così / COM Marco / ALL dottore // ALL 'It's usually done like this, Marco, doctor' %ill: reproach
(34a) *queste son belle / COM mamma / ALL amica mia // ALL 'these are beautiful, mom, my friend' %ill: appreciation
```

Topic and Allocutive impose conditions on the semantic interpretation of their nominal filling so that the same expression, for instance, a proper name in (1) and (1a) is interpreted respectively as referential or designatory, depending on whether it is performed as a Topic or as an Allocutive.

```
(1) *LIA: Virgilio / TOP ha un tumore al cervello // COM

'Virgil<sub>i</sub>, (0<sub>i</sub>) has a brain tumor'

%ill: conclusion [ifamcv01-573]
```

```
(1a) *ABC: sai / CNT Virgilio / ALL ha un tumore al cervello (Mario) // COM

'you know, Virgilz, (0i) has a brain tumor (Marioi)'

%ill: conclusion [lab. example]
```

Given that native speakers come to distinguish perceptually the two utterances in connection to their respective prosodic performances, they also succeed in assigning them – although without a clear awareness of their difference – the referential interpretation of Topic and the designatory interpretation of Allocutive according to the communicative intention of the speaker. In other words, the Allocutive's function changes the semantic value of the expressions filling it: a bare noun loses its referential possibility and maintains only a designatory value. It may thus appear less surprising that a bare nominal expression – deprived of its referential value and reduced to a designative value alone – could function as a cohesive social device and, in some sense, as a Discourse Marker.

7. Conclusions

Topic functions as the field of application of the illocutionary force and Allocutive as dialogical support aiming at social and empathic cohesion. However, the comparison between the two information units needs a premise on the fact that the set of expressions generically called vocative is not exclusively dedicated to the cohesive function. Vocatives can also accomplish directive illocutionary types, such as calling, which, like all directive acts, justifies the reference to the addressee as a 2nd person and considering vocatives as deictic devices, as generally assumed in the literature. Still, this is not the case with Allocutives, which are not deictic since they only designate the addressee. Crucially, prosody allows us to distinguish the illocutionary

functions of vocatives, performed through dedicated root units, and the labeling function of Allocutive, performed through a defocused falling/flat unit.

Given their occasional sharing of distribution (before the Comment) and lexical filling (bare nouns), an ambiguity of interpretation could arise between Topic and Allocutive. However, the prosodic performance of Topic (prefix unit) and Allocutive (defocused flat unit) allows their perceptive distinction, which also implies a change in the interpretation of their nominal fillings: referential for the Topic vs. designatory for the Allocutive.

The comparison between the function of the Topic and that of Allocutive makes the semantic characteristics of the Topic more clearly emerge. Although semantic restrictions are imposed on the Topic (pure anaphoric pronouns, negative pronouns, indefinite phrases, manner adverbs, deontic adverbials), its semantics include deictics and extend to a broad domain as long as providing an identifiable reference for the addressee. Conversely, the function of Allocutive limits the lexical fillings to bare nouns expressing the relationships between the speaker and the addressee. Specifically, it excludes the deictics since it labels the addressee out of any reference, maintaining only a designatory value.

The following table summarizes the comparison between the most relevant features of the Topic and the Allocutive information units.

	TOPIC	ALLOCUTIVE
Туре	Textual	Dialogical
	Semantic and syntactic	Support and maintenance of
	participation in the utterance	the exchange with the
		addressee
Function	Field of application for the	Social/empathic cohesion and
	illocution of the Comment	attention reactivation
Prosody	Prefix unit with prominence	Falling/flat unit without
		prominence
Distribution	Before the Comment	After the Comment (by
		preference)
Morpho-	Phrases (referential, modal)	Nouns (proper names,
syntax		appellatives, role nouns)
Semantics	Referential	Designatory
	(+deictic)	(-deictic)
Iteration	Possible	Banned
Frequency	20%	Less than 1%
	-	-

Table 1: Definitory features of Topic and Allocutive information units.

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Corpora

DB-IPIC: http://www.lablita.it/app/dbipic

Corpus LABLITA: http://corpus.lablita.it/

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Genre-dependent Discourse-Topic Persistence in English Inversion

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Abstract

Variation in English constituent order is typically explained by information packaging and, with that, by the relation of the construction to the discourse preceding it. This paper presents an empirical approach to the study of the construction of English inversion, focusing on its role in subsequent discourse and its relation to the discourse topic. Building on work on other constructions that are commonly considered to be topic-marking, a dataset of inversions from two genres of the COCA corpus was investigated. The research questions addressed are (i) whether, in the sequence of the two constituents that are reversed by way of an inversion, the fronted, non-subject element or the grammatical subject of the sentence should be considered the topic of the sentence, and (ii) to what extent the topical structure following the inversion varies with the register or genre. Since genres typically differ in text structure, the second research question is also a reality check for the first. Outcomes show that looking at inversion from the point of view of discourse-level topic persistence rather than information packaging adds an important insight to an understanding of its function. In addition, an analysis with respect to discourse- rather than information structure helps to account for genre differences in the use of inversion across discourse types. On a methodological level, the paper illustrates an approach that operationalizes the retrieval of inversions from a corpus and the analysis of discourse-topic persistence.

Keywords: subject-verb inversion; information structure; topic persistence; genre; COCA corpus.

1. Introduction

In a language with rigid SV-constituent order, such as English, inversion refers to a sentence pattern in which the grammatical subject is positioned after the verb, while an element of the verb phrase is found in the clause-initial position (Ward, Birner & Huddleston 2002: 1385). In English, one of the few typical properties of the subject function is its position before the verb. As a result, this deviant constituent order is attributed the status of a non-canonical construction (Dorgeloh 1996, 1997; Huddleston & Pullum 2002: 46). Deviating from the basic, i.e., canonical order, where the subject is placed before the verb, leads to a non-basic way of packaging information, which "can only be fully accounted for by taking the surrounding discourse into consideration" (Dorgeloh & Wanner 2023: 3).

To start with an example of the construction, the inversion in (1) can be contrasted with the corresponding sentence in basic (SV) order in (2). Both sentences are equally grammatical in English, but (1) suggests the context of a text passage in which the fronted constituent *the fence* is likely to directly connect to the previous discourse. In all likelihood, the preceding text will have contained an element such as *backyard* or *garden*, i.e., some element inducing the contextual accessibility (Ariel 1990) of the fence.

- (1) I looked up. Peering over the fence was the new boy who had just moved with his family into the house behind ours. (COCA, Fiction, 2009)
- (2) I looked up. The new boy who had just moved with his family into the house behind ours was peering over the fence.

Constructions with non-canonical word order, like the inversion in (1), are standardly explained by information packaging (e.g., Ward, Birner & Huddleston 2002), i.e., by the principle that given information tends to precede new information in a sentence. When this principle is applied to inversion, the prediction would be that it has a distribution of information where the fronted constituent represents information that is recoverable from the preceding discourse, while the postposed subject will contain information that is new (e.g., Birner & Ward 2009; Ward & Birner 2019). This prediction has been discussed in various work on inversion (e.g., Birner 1994; Dorgeloh 1997; Kreyer 2006), although in a hedged version: at a minimum, an

inversion does not occur if the information of the fronted constituent is less familiar than the information of the postposed subject (Birner 1994: 244).

While such analyses of inversion take into account its relation to the previous discourse, there is also work emphasizing that inversion in English is basically a presentative construction and that its discourse function is therefore one that is also relevant for the subsequent discourse (Dorgeloh 1997; Kreyer 2006; Prado-Alonso 2011, 2014). In that respect, looking back at (1), it is not so much the (relative) discourse familiarity of *the fence* that makes the inversion an adequate choice here with view to its surrounding discourse but, in all likelihood, it is also the relation of the postposed subject (*the new boy*) to the upcoming discourse. As becomes obvious when looking at the larger context of (1), given in (3) below, the narration after the inversion turns to the referent of the postverbal NP, which here recurs as the subject of the sentence following the non-canonical construction.

(3) Pushing his brown hair out of his eyes, he said, "Don't you hate getting dirty like that?"

Example (1), together with its context in (3), illustrates a typical pattern of using inversion where the construction induces a change of interest towards a new referent, here of a new character. This function of inversion is described in the literature as one of "focus management," which results from topic shifts (Dorgeloh 1997: 105-116; also, Kreyer 2006, 2010). However, what is not made explicit in these accounts of inversion is the nature of topicality that is being addressed. For example, a standard reference grammar of English (Biber et al. 2021: 888) equals given information with "topical" information, which means the NP in the non-subject constituent of an inversion (*the fence* in (1)) would be its (non-subject) topic. Other grammars standardly identify topic as the discourse-oriented notion of the subject, of "what we are talking or writing about" (e.g., Börjars & Burridge 2019: 226), i.e., they follow the quite standard approach of equating the topic with the referent the proposition is about (e.g., Reinhart 1981; Gundel 1988; Lambrecht 1994). Following that kind of analysis, the topic of the inversion in (1) would be the syntactic subject (*the new boy...*).

With the study presented here I will argue that inversion in English is particularly prone to the factors concealed by the concept of topic. Shifting away from the view of topicality as a unitary and universal phenomenon (Jacobs 2001, and other papers

in this special issue) opens the way to examining the specific functions of diverse constructions and uncovering the sources of the effects associated with topicality. Instead of applying a pre-empirical, theoretical notion of topicality to language-specific data, we explore directly the properties of English inversion analysing the structure together with its discourse context. This allows for contrasting and interrelating the sentence-level and discourse functions of inversion, as both are evoked in different definitions of topicality and its analysis.

The analysis that will be presented focuses on the status of both elements of the inversion by investigating their relation to the subsequent discourse. This analysis aims to explore whether the inversion operates as a sentence-level backgrounding, "topicalizing" device for the initial material (as suggested, e.g., by Biber et al. 2021), and/or whether its function is rooted in attributing discourse properties to the referent of the postverbal grammatical subject. As such, it simultaneously teases apart and links the sentence-level information packaging processes and discourse structure (RQ1). The analysis also focuses on genre differences, since genres most typically differ in their text structures (Biber & Conrad 2019). It will be argued here that specific genres are the adequate level for categorizing discourse when looking at grammatical and discourse patterns closely. Since the literature on inversion finds its occurrence to vary considerably with the type of discourse, it is an open question to what extent the function of inversion varies by the genre, as some studies might suggest (e.g., Kreyer 2006; Prado-Alonso & Acuña-Fariña 2010) (RQ2). On a more general level, the paper argues for a relatively fine-grained look at effects associated with topicality, highlighting that both the construction of inversion, the syntactic types included in the analysis as well as the genres the data are taken from require the choice of an adequate "degree of specificity" (Dorgeloh & Kunter 2015) for the analysis.

2. Background

2.1. Inversion in English

2.1.1 Definition and types of inversion

English inversion results from an argument reversal, i.e., from the displacement of two sentence constituents. While a non-subject, often semantically locative argument is placed sentence-initially, the syntactic subject (as judged by its cross-reference on the verb) ends up in sentence-final position (Birner & Ward 1998; Ward & Birner 2006; Webelhuth 2011). The resulting English sentence pattern is variably described in the literature as "locative" or "stylistic" inversion (Bresnan 1994; Culicover & Levine 2001; Webelhuth 2011) and, apart from the non-canonical word order, has also some other grammatical characteristics: there must be an intransitive verb, which is most typically the verb *be*, the sentence cannot carry negation, and the grammatical subject must not be an anaphoric pronoun (cp. Webelhuth 2011: 83).

Depending on the phrase type of the sentence-initial element, there are in principle five syntactic patterns of inversion: inversion following a fronted *prepositional phrase* (PP-inversion), an *adjective phrase* (AdjP-inversion), a *verb phrase* (VP-inversion), a *noun phrase* (NP-inversion), or an *adverb phrase* (AdvP-inversion). Examples (4) – (8) are attestations that illustrate each of these types:

- (4) Below the aristocracy were various dependents, including employees [...] and slaves. (COCA, Academic, 1992) (PP-inversion)
- (5) More painful were the personal things like the photo albums that recorded his parents lives and his own. (COCA, Fiction, 2003) (AdjP-inversion)
- (6) Following the directions was a scale representing the Likert choices, 1 to 7. (COCA, Academic, 1993) (VP-inversion)
- (7) Now is the time to cut spending. (COCA, Spoken, 2013) (AdvP-inversion)
- (8) An exception to this is the Test of Narrative Language. (COCA, Academic, 2017) (NP-inversion)

Two of the sentence patterns illustrated in (4) through (8) need to be excluded for the analysis applied to the corpus data below. In (7), the reversal of subject and verb follows a fronted deictic adverb (*now*), not a fully specified, lexical verbal argument. This sentence pattern is the "presentative prototype" of the construction (Dorgeloh 1997: 67), and as such it cannot be analysed as containing a potential topic. Advinversion is a case of discourse-topic introduction (Kreyer 2006: 165ff.) typical of thetic sentences, to which presentatives belong.

By contrast, NP-inversion, like the one in (8), is excluded because it contains two NPs: an ascriptive NP (*an exception to this*) and the syntactic subject (*the Test of Narrative Language*). Such NP-inversion is "equative" rather than predicative (cp., e.g., Mikkelsen 2005; Geist 2007; Haspelmath 2017), i.e., the presence of two NPs and the

copula verb *be* means that the position of subject and initial element could also be reversed, i.e., the initial phrase could be equally analysed as the subject. Without closer analysis, taking into account properties of the NPs such as their specificity or definiteness, NP-*be*-NP sequences could thus variably be analysed as a case of inversion or not, which would in turn raise the question whether NP-inversion links a topicality effect to the use of a marked construction at all. For this reason, only PP-inversion, AdjP-inversion, and VP-inversion were included in the analysis of competing topics for this study.

2.1.2 Inversion as a discourse phenomenon

All patterns of full inversion are described as serving the discourse function of "information-packaging" in the literature (e.g., Ward, Birner & Huddleston 2002; Ward & Birner 2019; Biber et al. 2021; Dorgeloh & Wanner 2023). Since a basic principle of constituent ordering in an English sentence is that known information typically precedes new information, the initially placed constituent of an inversion can be expected to contain information that is more familiar, either from the discourse, or for the hearer or reader, than the information expressed by the subject. This assumption has been confirmed in a wide range of corpus work (e.g., Birner 1994; Kreyer 2006): by far the most common information structure of inversion is one where the information of the fronted constituent is recoverable, while the postposed subject contains information that is relatively new. For example, the PP-inversion in (4) was preceded by two sentences on *the aristocracy*, as shown in (9):

(9) Wealth was enough to guarantee influence. Nobles acted as managers of large firms and controlled most resources [...]. Below the aristocracy were various dependents, including employees [...] and slaves.

The literature also points out that there are cases where both the fronted constituent and the postposed subject contain some kind of given information. However, it is highly unlikely that the information in the fronted constituent is less familiar than the information of the postposed subject (Ward, Birner & Huddleston 2002: 1387; Dorgeloh & Wanner 2023: 75). In addition, there is a difference in information structure between the so-considered "locative" types of inversion, i.e., PP- and VP-inversion, such as (4) and (6), and "non-locative" inversion, like AdjP-inversion. Non-

locative inversion, like the one in (5), does not only follow the constraint of 'no new before given information', but requires that the entire sentence, except for the postposed subject, expresses at least contextually inferable, and preferably given, information. This familiar rest is considered an "open" proposition, which must be, as a whole, derivable from the preceding discourse (Ward, Birner & Huddleston 2002: 1388). For example, in (5), which is shown in (10) together with some of its preceding text, the proposition *something was painful* is already given information, as derivable from the discourse preceding the inversion.

(10) But that was only the superficial loss. More painful were the personal things...

This difference in what is given information in locative and non-locative inversion types also indicates that the relative discourse familiarity of individual constituents from an inversion cannot directly suggest what could be considered as its topic. It therefore makes the construction a useful candidate for disentangling topicality effects from givenness, which is what the remainder of this paper will aim for.

2.2. Topicality and topicalizing constructions in English

2.2.1 Inversion and topicality

Generally, the concept of "topic" is variably be used to refer (i) sentence-level topics, or (ii) to discourse-topics, while in the former case the term often conflates both pragmatic referents and their linguistic expression. Moreover, the pragmatic, sentence-level notion has a broad range of definitions, rooted in diverse types of interrelation between a unit of information and the proposition. Finally, a sentence-topic and discourse-topic can be different within the same example. In particular, a case relevant to this study is that a new discourse topic can be introduced or established as such by a focal constituent on a sentence level. Resulting from this range of definitions that variably refer to the sentence or discourse, the "topicality" of a sentence constituent can either mean *being* the topic or *having a certain likelihood* of being the topic (cp. Orita, Vornov & Feldman 2021: 745). In the latter sense, the notion becomes measurable and, with that, something that can be subjected to an empirical investigation beyond local sentence interpretation. This clearly comes with

the caveat that the actually measured property is not topicality of the referent itself, but its contextual accessibility as its proxy.

In a language with subject-first order, inversion and the resulting complement verb subject ordering always comes at a certain price (Perez-Guerra 2012). Placing the subject non-canonically after the full verb in principle allows for two directly competing analyses. One is to make the fronted constituent function as the topicexpression. The other view is to identify the topic in an inversion as the noncanonically placed grammatical subject, thus suggesting that this is the referent the proposition is about. As aboutness is an elusive interpretive effect, operable limits of its application remain vague. However, if we want topic to be a meaningful notion, it should be rooted in an independent factor of communicative structure, and not be merely derived from its position or grammatical category. As a result, none of these two views of what constitutes the topic in an inversion contributes to a proper understanding of the actual phenomenon, beyond labelling it with an available term. As a result, the case of inversion highlights that, in a language with rigid word order like English, argument reversal can plausibly only be approached in the sense of (ii), i.e., investigating the likelihood of being a topic in the current proposition due to the discourse state. Topicality does then not refer to a property of a construction or one of its components, but is a discourse phenomenon identifiable through pragmatic properties of information in actual language data.

2.2.2 Other topic-marking English constructions

There are additional constructions in English typically treated as topic-marking, or topicalizing: (NP-)fronting, also often referred to as "preposing", left-dislocation, or left-detachment (e.g., Prince 1984; Ward 1988; Geluykens 1992; Lambrecht 1994; Gregory & Michaelis 2001; Leuckert 2017, 2019). These constructions can be described as placing the topic in front of the comment, i.e., as showing a specific "pragmatic relation" (Lambrecht 2001: 1066) of an initially placed constituent to the rest of the predication.

Similar to inversion, fronting and left-dislocation are non-canonical in the English syntactic system, in that the preposed NP is a non-subject verbal argument preceding the subject. In fronting, it is just the NP that is fronted while, in left-dislocation, an anaphoric pronoun fills the gap resulting from the movement of the NP. Both constructions are described as *topicalizing*, again reflecting either that given

information is equalled with being topical, or that fronted information is found to be associated with highlighting a referent (Geluykens 1992: 158). However, research on the two constructions similarly shows that they do not only mark topics in the sense of given, identifiable information, but possess more varied discourse functions (e.g., Prince 1981; Ward & Birner 2019; Leuckert 2019; Cimmino 2023; Cimmino & Saccone this volume).

Examples of fronting and left-dislocation that serve topicalization are given in (11) and (12), constructed examples derived from (8) as their imagined prior discourse. Both might be sentences that could easily follow the inversion in (8). By contrast, (13) and (14) are both quite unlikely, indicating already the role of the postposed subject in an inversion as a potential new discourse topic.

- (11) The Test of Narrative Language, I don't know. (NP-fronting/topicalization)
- (12) The Test of Narrative Language, I don't know it. (left-dislocation)
- (13) An exception to this I don't know. (NP-fronting/topicalization)
- (14) ? An exception to this I don't know it. (left-dislocation)

It is pointed out in the literature that fronting, in contrast to left-dislocation, requires a particularly close link to its prior discourse. The construction either places an NP with given information in sentence-initial position, or the fronted element carries new information, in which case the link to prior discourse exists via an "open proposition" (Huddleston & Pullum 2002: 35), which means that everything in the clause, except for the fronted element, is inferable or given information. Example (11) would thus only be felicitous if the fronted NP was just mentioned before, or it could occur in a context where it is already clear that the speaker denies knowing something, with only The Test of Narrative Language being highlighted through fronting¹. By contrast, left-dislocation is described in the literature as a construction that results from a more general need to negotiate or clarify a topic (Geluykens 1992). So, for example, in (12) the speaker might take up again ("re-activate") the topic of some Test of Narrative Language, which could either have been mentioned a while ago or could otherwise be "to some extent inferable" (Dorgeloh & Wanner 2023: 63). There is thus no overall, common function of the sentence-initial, non-canonically placed constituent in fronting and left-dislocation which could easily be related to topicality.

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¹ Cases like these are also described as focus preposing.

Both preposing and left-dislocation are primarily constructions of spoken language use and, in that respect, differ from inversion, which typically occurs in written and "displaced", i.e., narrative or descriptive, discourse (e.g., Dorgeloh 1997, 2006; Kreyer 2006, 2010; Dorgeloh & Wanner 2023: 77-80). Corpus studies on preposing and left-dislocation have typically sought for evidence of topic- and discourse-management functions of the two constructions in dialogue discourse. Pioneering work of that kind is a study by Gregory & Michaelis (2001), whose methodology is applied to the study of inversion based on the data presented below.

In their study of preposing ("topicalization") and left-dislocation, Gregory & Michaelis (2001) equal topic with the status of persistent referents in the sense of topic continuity. They define topic persistence referring to the "cataphoric discourse status of the denotatum of the pre-clausal NP" (Gregory & Michaelis 2001: 21), i.e., as the recurrence of a referent in the subsequent discourse. This approach also takes note of the condition whether the recurrence of a referent takes place in the form of a full NP or a pronoun, since discourse varies widely in how forms of referring expressions recur within it (e.g., Gundel et al. 1993). Following their approach, topic persistence as a measurement looks at whether the referent of a pre-clausal NP recurs within a given number of subsequent sentences, which could be anything from ten, as in Givón (1984), to five, as in the study by Gregory & Michaelis (2001)². On a conceptual level, topic persistence in this approach reflects that the referent of an NP has been established in discourse, i.e., the approach manages to substantiate the status of referent in discourse, making it measurable. However, in that referential continuity and topic structure can be syntactically expressed in a variety of ways, the actual realization of those patterns is still variable and likely to vary with the register or genre.

2.3. Topicality and Genre/Register Variation

While register variation is generally associated with functional, situation-dependent variation in language use, genre variation focuses on features that are conventional and/or typical, including features that one only finds by looking at an entire text (cf. Biber & Conrad 2019; Dorgeloh & Wanner 2020: 655). Resulting from that distinction, register characteristics are typically features that are pervasive, whereas genres also

² For reasons explained below, for this study the number of subsequent sentences was reduced further to only two.

have features belonging to their rhetorical structure or textual organisation (Biber & Conrad 2019). When going into differences among texts in terms of topic structures, it is likely that genre characteristics, rather than pervasive lexico-grammatical properties of a register as a whole, turn out to be relevant.

For example, the kind of narration and handling of the topic shift exemplified by (1) is less likely a feature of fiction as a whole, but it is plausibly a characteristic of a certain kind of novel, including its perspective, narrative technique, etc. Although corpora such as the COCA corpus (Davies 2008), which is the source of the set of inversions investigated here, are in principle structured along registers (with sections such as fiction, spoken, or academic³), looking at them in terms of their properties of genre will mean to focus on their text organisation.

Information structuring processes can vary across spoken and written registers (Cimmino 2023). Referents in speech are likely to be negotiable and negotiated, often introduced by a separate turn marked by intonation, or co-constructed. By contrast, written genres require other strategies and inversion is known to be among them (e.g., Kreyer 2006: 172-188; Prado-Alonso & Acuña-Fariña 2010; Prado-Alonso 2014). However, within the written register, there is still a lot of syntactic, genre-driven variation (e.g., Dorgeloh & Wanner 2010, 2020), and a common place of variation is the sentence-initial position. For example, in an analysis of that position as "proxy for register variation", Pérez-Guerra (2021) finds that any first-element in the sentence, rather than any preverbal element, is the best metric for register distinctions. As a result of this analysis based on sentence beginnings, two main clusters of registers turn out to be particularly relevant: popular, informal ones and learned, formal ones. Each of these clusters is also addressed by the two genres chosen for the corpus study presented below: academic discourse representing the learned/formal register and fictional discourse the popular/informal one.

2.4. Hypotheses

This study aims to highlight that both the construction of inversion, rather than the sentence-initial position as such, as well as the register or genre have their role in topicality effects. While in preposing and left-dislocation the front position of a constituent may indicate (or even trigger an interpretation of) its givenness,

³ This applies to all corpora on English.corpora.org.

aboutness, or status as an established discourse topic, inversion involves the non-canonical position of two sentence elements, of which the placement of the syntactic subject is possibly the more relevant one. In addition, the register or genre is an important variable since it is plausible to assume that factors commonly regarded as constituting topic conditions (such as givenness, prominence, or animacy) are likely to vary, for example, in academic compared to fictional texts. Similar to differences across languages, disentangling topicality effects therefore also means choosing the right "degree of specificity" when defining a construction and its discourse function, to arrive at suitable generalizations (Dorgeloh & Kunter 2015).

More concretely, the analysis of inversion will test the following hypotheses:

- i. In the sequence of the two constituents affected by the argument reversal of inversion, the referent of the sentence-final syntactic subject, rather than the one of the fronted verbal complements, provides the sentence-level, "aboutness" topic. In analogy with other constructions dubbed topic-marking, such as fronting and left-dislocation, which have been described as "Left Marked Structures" (LMSs), PP-inversion, AdjP-inversion, and VP-inversion could in such case be considered Right Marked Structures.
- ii. The information structuring function of inversion varies with the genre as it plays an important role in discourse organisation. Effects associated with the notion of topicality are likely to differ in syntactic realization (e.g., noun vs. pronoun) as well as in the nature of the semantic relation among persistent referents (e.g., co-reference, part-whole relations, hyponymy).

3. Method

The dataset of inversions analysed for the present study was obtained from the Corpus of Contemporary American English COCA (Davies 2008), with an equal number of attestations coming from the two genres of 'fiction' and 'academic discourse.' The dataset retrieved consists of 530 validated observations of inversions following fronted prepositional phrases (PP-inversion), adjective phrases (AdjP-inversion) and verb phrases (VP-inversion) (Otte 2021). The dataset was retrieved using various lexical shortcuts for PP-inversion and AdjP-inversion, based on a limited set of prepositions (e.g., *above*, *between*, and *in front of*) as well as adverbs modifying

adjectives (e.g., equally, also, and more/most)⁴. The study was limited to the straightforwardly searchable verb be, excluding other intransitive verbs with which inversion occasionally occurs. The resulting search strings were a combination of these lexemes and a corresponding word-class tag for an NP, or adjective, followed by be. For VP-inversion, the search was limited to sequences of a present participle followed by the + noun followed by a form of be. All these sequences were further limited, using punctuation, to their occurrence at sentence beginnings in order to avoid too many false positives, e.g., of a sequence of PP + be within the sentence, but not with an inversion, as illustrated by (15)). All attestations were subsequently cleaned manually.

(15) The specific paths among the variables are depicted in the structural model in Figure 2. (COCA, Academic, 2014)

The attestations were coded for the recurrence of the referent either of an NP within the fronted element or of the finally placed subject in the discourse following the inversion. The analysis equalled "topic status" with "topic persistence", as a measure that was operationalized as the number of times a referent recurs in subsequent discourse (Givón 1984: 908; see also Gregory & Michaelis 2001). In Givón's original work, that condition was defined as a recurrence "within subsequent 10 clauses following the current clause" (Givón 1984: 908), but this was reduced here to only two sentences, since the sentences from the two genres turned out to be substantially longer. This analysis was applied to the total of the 530 validated inversions (200 for PP-inversion, 200 for AdjP-inversion, and 130 for VP-inversion).

Examples (16) through (20) illustrate the four degrees of topic persistence for which the dataset was coded, taking into account that the choice of a (pronominal vs. lexical) NP reflects its accessibility in discourse (Ariel 1988). The recurrent referent that followed the inversion could either be a co-referential pronoun, as in (16) (persistence SCORE 3), a co-referential NP, as in (17) and (18) (persistence SCORE 2), or an anchored NP (persistence SCORE 1). The category of co-referential NPs also included referents in a part-whole relation, such as *parent* and *mother* in (18). Anchored NPs involved the lowest degree of topic persistence in that a given lexeme

131

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⁴ For a detailed description of how to search for marked constructions with lexical shortcuts, i.e., using specific lexemes, in a corpus and, specifically, how to retrieve a set of inversions, see Dorgeloh & Wanner (2023: Ch. 3).

or concept, though not necessarily the same referent, could recur in the subsequent discourse, as in (19). Example (20) exemplifies a case of no topic persistence. Note that the referential relation was found either in the head of the two elements, like in (16) (*various dependents - they*), or in the relation of any dependent element within the two phrases, like in (17) (*a Mozart opera - (a portion of) the Mozart recording*), (18) (where the NP *his parents* occurs within a postmodifying PP), and (19) (*sales* being the complement of a postposed subject clause):

- (16) Below the aristocracy were various **dependents**, including employees [...] and slaves. The status of each depended on their position in the larger system, each was attached to a specific noble or noble section, and **they** had varying degrees of freedom. (COCA, Academic, 1992) [TOPICALITY SCORE 3: **coreferential pronouns**]
- (17) Among the albums is a Mozart opera [...]. He plays a portion of the Mozart recording, setting the stylus on a duet sung by two women. (COCA, Academic, 1997) [TOPICALITY SCORE: 2: co-referential NPs]
- (18) More painful were the personal things like the photo albums that recorded **his parents** lives and his own. **The mother** he hardly remembered. (COCA, Fiction, 2003) [TOPICALITY SCORE 2: **coreferential NPs in part-whole relation**]
- (19) Also uncertain is whether premiums and other insurance-related income constitute "sales" for this purpose. Apparently, start-up companies that do not yet have any sales (...) are also excluded. (COCA, Fiction, 2007) [TOPICALITY SCORE 1: anchored NP]
- (20) Among the boulders are 30 caves inhabited by Buddhist monks beginning in the third century B.C. The final ascent to the top began at the Lion Staircase. The site's name derives from Simha-giri or Lion Mountain [...]. (COCA, Academic, 2002) [TOPICALITY SCORE 0: no recurrence]

Although we use numbers for the score assignment, the used scale is ordinal and not a ration scale. In other words, score 3 is higher than score 1, but is not thrice higher.

For the case of AdjP-inversion, a difficulty in coding was that, almost always, the fronted AdjP did not contain a proper NP for which a referent could be determined, as also obvious in (18) and (19). Still, due to the semantics of the modifying adverb preceding these inversions, the fronted AdjP could be analysed as containing an

implicit referent. Like in (18) and (19), the inversion here follows a sequence of linking or comparing adverb (*also*, *more*) + adjective, which is a pattern that has been observed in AdjP-inversion in general (cf. Dorgeloh & Kunter 2015). Such a linking or comparing AdjP carries a meaning of 'likeness,' which can be interpreted as being referential: "a thing cannot just be 'like'; it must be 'like something" (Halliday & Haisan 1976: 78; see also Dorgeloh 1997: 114). For example, in (18), there is something known from the previous discourse that is less *painful*; in (19), there is something that is also *uncertain*. In view of these implicit referents, it was in principle possible to determine the persistence of such topics implicitly contained in the fronted AdjPs even if, in practice, none of these implicit referents derivable from AdjPs in the dataset recurred as topic within the subsequent discourse.

4. Results

4.1. Topic persistence of both inverted elements

With respect to the first hypothesis, the analysis first looks at the likelihood of the two constituents of the inversion to become a discourse topic in the subsequent text. Table 1 and Figure 1 provide the overall distribution, signalling two main findings. First, it becomes obvious that, based on the overall dataset of 530 attestations, 452 fronted constituents (85.3%) do not show any persistence of an (explicit or implicit) referent from the fronted phrase in the subsequent discourse. By contrast, a comparatively higher likelihood of persistence is observable for the subject NPs in the dataset. 62.5% of the syntactic subjects that are placed in clause-final position contain some kind of referent recurring in the subsequent discourse. There is thus only a small likelihood of the fronted constituent to become the topic of the subsequent discourse and a significantly higher likelihood for the postposed subject.

Topic persistence	Fronted NP	Subject NP
as pronoun	3	77
as NP	99	155
anchored	26	99
none	452	199

Table 1: Four values of topic persistence in 530 inversions from COCA.

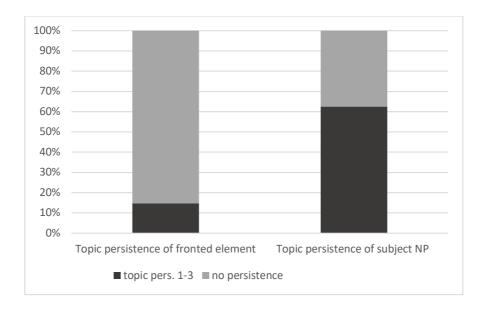


Figure 1: Topic persistence of Subject vs. Fronted NP in 530 inversions from COCA (p < .05, chi-square value at 254.83).

Interestingly, the picture does not get much different when looking at the three syntactic types of inversion separately. As Figure 2 indicates, the likelihood of recurring in the subsequent discourse does not differ substantially when comparing PP-inversion, AdjP-inversion, and VP-inversion. The proportion of instances with no topic persistence is slightly higher for VP-inversion (for a possible explanation, see Dorgeloh 2023), but that difference is clearly below statistical significance. In sum, all the postposed subjects in all types of inversion can be noted to have a substantially higher likelihood of persisting as discourse topics than the sentence-initial elements of the corresponding sentences.

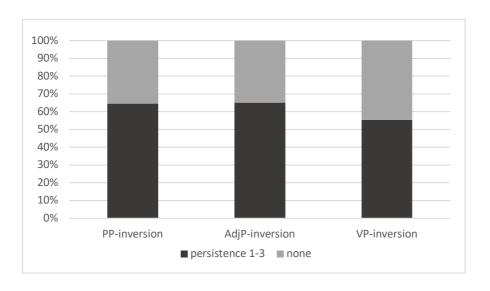


Figure 2: Topic persistence of subject NP in three types of inversion from COCA (p > .05, chi-square value at 3.6805).

4.2. Genre-dependent topic persistence

This section looks at two more variables that may reveal discourse persistence effects in the use of English inversion. One is the effect of genre per se, i.e., the question whether the function of inversion related to the discourse topic is dependent on the genre. The other aspect of inversion explored here is *how* the observed discourse persistence is realized.

The overall effect of the corresponding corpus sections is surprisingly streamlined: there is almost no difference between the two genres of academic texts and fiction when it comes to the likelihood of the non-canonically placed syntactic subject to recur in the subsequent discourse. As the absolute numbers in Table 2 as well as the proportional frequencies in Figure 3 indicate, the likelihood of the subject NP to become a persistent discourse topic is near to identical in each of the two genres (61% in fiction; 64% in academic texts).

Topic persistence	Academic	Fiction
as pronoun	15	62
as NP	76	79
anchored	71	28
none	103	96

Table 2: Topic persistence of subject NP in 530 inversions from two genres.

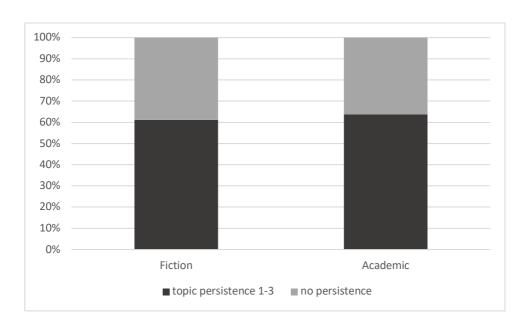


Figure 3: Topic persistence of subject NP in two genres from COCA (n = 265 per genre).

In addition, Figure 3 again shows that the likelihood of the subject NP in an inversion to become a discourse topic is overall two to one. Given the effort of a non-canonical construction, this may still seem remarkably low. In that light, the fact that we find no effect of the genre is all the more surprising, given that academic and fictional discourse are sure to vary considerably in the nature of the referents they deal with and in their resultant text structures. This is why a closer look at the semantic relations across referents and at the syntactic realizations of the persistent discourse topics is needed.

Figure 4 is based on the different types of referential relations that exist between a recurring referent and the preceding subject NP (as described in Section 3). In contrast to the outcomes in Figure 3, a comparison of these different relations shows a pronounced genre effect. While the amount of co-referential NPs, like in the examples (16) and (17) above, is almost identical in the two genres, the realization of discourse persistence in the form of an NP that is semantically anchored and of a co-referential pronoun differs substantially between genres. Academic discourse favors a relation of anchored NPs, while in fiction pronouns predominate. This finding confirms the expectation that there is a clear difference in how discourse topics are handled in fiction compared to academic texts: while the former, typically narrative texts, tend to possess a substantial referential continuity, e.g., a continuity of characters and places, academic texts typically build on more implicit semantic relations, such as hyponymy or co-hyponymy.

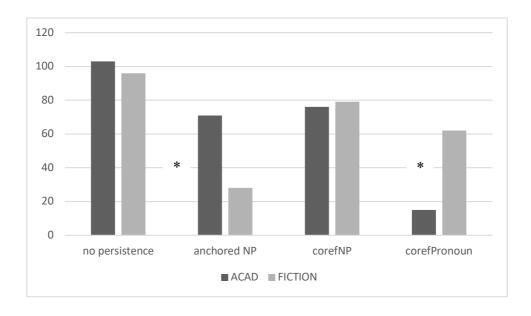


Figure 4: Referential relations for topic persistence of subject NPs from inversion in two genres (* = significant at p < .05).

The fact that we first found no genre difference when looking at topic persistence in the two corpus sections indicates that it is crucial to find the right level of analysis for discourse persistence effects. We observed inversions in both genres to foreshadow discourse persistence of the expressed referent. Inversion is thus obviously right, rather than left-, marking. What varies with the genre is the precise semantic and syntactic relation of the construction to its surrounding discourse. The differences that can be observed here make its discourse-structuring effects perhaps less obvious, but also highlight its dependence on the nature of the discourse organisation.

5. Discussion and conclusion

The close analysis of a comparatively large set of natural attestations of inversion retrieved from a corpus has shown that the discourse function of the construction is related to topicality in the sense of a documented likelihood of its subject to remain a discourse topic in the subsequent text. In that sense, the construction of inversion shapes the notion of topicality in the discourse perspective, which could be measured as the persistence of referents from the subject NP of an inversion in subsequent discourse. Despite the reversal of two verbal arguments, the discourse function of inversion does not primarily have to do with the sentence-initial, or theme, position, and it is right- rather than left-marking.

While this function is supported by a discourse persistence of subject NP referent that is clearly above 50% and, with that, beyond a random distribution, the significantly low persistence of preposed elements (slightly above 10%) is also telling. Their low likelihood of recurring after the inversion indicates that the inversion by itself signals low persistence, thus a discourse topic shift. The fact that both locative and non-locative inversions show similar patterns in that respect suggests that the construction, as it was defined here, is the right level of specificity for studying these effects, commonly associated with topicality. Despite recent findings on similarities with PP-fronting, or "PP-topicalization" (Bruening 2022), the analysis presented here thus reveals important differences rather than similarities of the two constructions.

Still, similar to topicalization in left-marking constructions, the syntactic realization of discourse topics is also varied if performed by a right-marking construction and shows plausible differences in terms of register specificity (cf. Pérez-Guerra 2021). As the syntactic subject of an inversion must always be a full NP, the

construction is likely to function as a referent introduction structure, signalling the referent's non-trivial contribution in the forthcoming discourse. However, the variability in the further realization of this referent is considerable. This variability is where we expect to see genre characteristics of referential continuity.

To deepen our understanding on the role of inversion in discourse processing, further research could be conducted on a more fine-grained variety of text types within the macro-categories of "Fiction" and "Academic writing". In that respect, other types of descriptive and narrative discourse are certainly "natural habitats" for the use of English locative inversion (Webelhuth 2011: 99; also, Dorgeloh 2006). Moreover, varieties of World English could be taken into account; language contact may indeed lead to alternative patterns or trends, revealing a different variation in terms of register and genre.

Overall, an analysis of English inversion beyond its information structure does not question the relevance of information-packaging accounts. Both the relation of the construction to the previous and to the subsequent discourse plausibly belong to the presentative mechanism that has long been known to connect full, lexical inversion to a deictic presentative construction of the type *here is...* or *now comes...* (Dorgeloh 1997: 67-68). Being able to substantiate both accounts with corpus data, applying an adequate operationalization and categorization, helps to fully explore the work of inversion in discourse processing and its role as a device of information management.

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Abbreviations

COCA = Corpus of ADVP = adverb phrase PP = prepositional phrase Contemporay American AdjP = adjective phrase VP = verb phrase English NP = noun phrase

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Left Detachment in a verb-final language: the interactional perspective

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Abstract

The study examines Left Detached (LD) structures (Left Dislocation and Hanging Topics) in a corpus of natural interaction in Anal Naga (anm; Trans-Himalayan, India) in the multimodal interactional framework. Instead of following the pre-empirical assumption that LD-structures form a syntactic construction, the study demonstrates that they are instantiations of a broader phenomenon of "detached NPs". These are NPs that initiate a syntactic structure and terminate the Intonation Unit. The study argues that detached NPs perform a separate interactional task while the continuation is not yet planned, as is evidenced by prosody, gaze, and co-gesture. There are two frequent scenarios where detached NPs occur: (1) turn-taking, where they serve as the locus of securing the floor or for a recipient search, and (2) alignment of joint attention on a new referent or maintenance of attention on an active referent. LDstructures do not form a separate group within detached NPs with respect to their function, usage, and frequency, but merely represent examples where a detached NP is followed by relevant material. However, the decision to produce this continuation and its structural planning take place after the detached NP has been produced, and as such do not affect the analysis of its function. The apparent topical effects associated with LD require no concept of topicality but are epiphenomenal of the general factors of attention and relevance. They are observed only in static retrospective examination but are unneeded for the analysis and irrelevant for the dynamic planning and processing of interactional discourse.

Keywords: Left Dislocation; Hanging Topic; Topicality; Information Structure; Trans-Himalayan; Tibeto-Burman.

1. Introduction

1.1. Left Detachment

Left Dislocation/Detachment (LD) is a family of structures attested across numerous unrelated languages and often assumed to be universal (Maslova & Bernini 2006). LD-structures consist of an extra-clausal, typically nominal constituent (NP), that is separated prosodically and/or syntactically from the immediately following clause. The clause is interpreted as "about" the referent of this NP or within a frame that it defines. Consequently, LD structures form a typical example of a topicalising structure. In classic examples of LD, the detached NP constituent is co-referential with a resumptive pronoun in the main clause, as is illustrated in (1) from German.

```
(1) German (deu; Indo-European, Germanic; Jacobs 2001: 642)

*Peter, ich habe ihn heute nicht getroffen.

Peter 1sg pfv.1sg he.ACC today NEG meet:pst.ptcp

'Peter, I have not met him today.'
```

In another common LD-structure, dubbed Hanging Topic (HT), there is no resumptive NP in the clause, that would be coreferential with the detached constituent. This structure typically introduces a frame for the interpretation of the proposition, as is the case in (2) from Russian.

```
(2) Russian (rus; Indo-European, Slavic; Maslova & Bernini 2006: 74)

Sobak-a – vsegda pol-y grjazn-ye
dog-NOM.SG always floor-PL dirty-PL

'The/a dog, the floors are always dirty.'
```

An additional LD-structure that exhibits closely related formal and functional properties is occasionally called a "Subject Marking"-construction (SM) (Netz & Kuzar 2007), shown in English (3). In this case the initial NP is introduced separately and occupies its own Intonation Unit, but the speaker continues elaborating the syntactic structure so that the NP becomes its subject.

(3) English (Netz & Kuzar 2007: 308) **Dad**_i, you know, Ø_i has done some of it.

LD-structures play an important role in the study of Information Structure. They are commonly analysed as an expression of the topic of the subsequent proposition, so that the main clause is interpreted as being about the referent of the extra-clausal NP (Lambrecht 1994: 188; Gregory & Michaelis 2001 among many others). In this view, the structure provides evidence for the cognitive limitations of information processing: according to the 'Principle of Separation of Reference and Role' (PSRR) (Lambrecht 1994: 185), both an activation of a referent and assigning the topical role to this referent in a proposition incur cognitive effort. As a result, the two processes are preferably separated and performed in different, consecutive syntactic units. The detached NP is used for the activation of a referent or for its announcement (Erteschik-Shir 1997: 53). This move allows for the usage of this referent as the topic of the proposition, communicated by the subsequent clause structured as about this referent (Prince 1998; Kuzar & Netz 2010). This view also lead to the analysis of topics as performing a separate attention-aligning speech act (Endriss 2009). LD-structures are also observed to have recurrent discourse-structuring effects, such as listing, contrasting and sequence opening (Netz & Kuzar 2007), as well as specific pragmatic properties related to the discourse status of the referent (Birner & Ward 1998; Gregory & Michaelis 2001), but at least in some views these are derived from the topicannouncing function (Kerr 2014).

Against this Information Structural approach to LD, interactional analyses propose a different view, arguing that the primary functions of the construction lie in the interaction-managing domain. For example, Duranti & Ochs (1979) demonstrate that LDs in Italian are primarily used to gain access to and maintain the floor. Pekarek-Doehler et al. (2015) analyse LD-structures in French as interactional resources for managing specific goals, such as turn- and sequence-organisation, assessment and listing. Moreover, taking the online syntax perspective, the LD-structure often *emerges* from the incremental construction of the turn, where the talk after the detached NP is improvised only after this NP has been delivered (Sornicola 1981: 136; Pekarek-Doehler et al. 2015: Ch. 7). This view was partly foreshadowed already in Geluykens' (1992) work, who regarded LD in English as a conventionalisation of the bifold process of a reference negotiation and an assertion.

However, an interactional perspective on the temporally unfolding structure of an NP followed by a clause can also dispense with the conventionalisation scenario. It can be the case that structures traditionally regarded as LD-sentence types are fully compositional, non-conventionalised discourse collocations of an NP and a subsequent clause. If there is no evidence for a conventionalisation of the overall structure from the point of view of its frequency, production, or function, it should rather be regarded as an occasional collocation of the two more basic structures. In this case, each part contributes its usual function and the co-occurrence of the two is neither pre-planned, nor conventionalised, nor does it have a consistent function. In such a case, speakers do not *use* this structure for achieving a certain discourse goal, but the apparent structure and its interpretive effects are epiphenomenal of the combination of the used parts and their functions.

This is indeed what was claimed for LD-style structures in spontaneous Hebrew (Ozerov 2025). The initial detached NP in this analysis either provides a planned local contribution, such as an update (cf. Ono & Thompson 1994; Helasvuo 2019; Tao 2020), or is driven by interactional factors, such as online utterance modification and discourse linkage. Numerous factors, and in particular disfluencies, turn transitions and syntactic modifications suggest that upon the delivery of the NP, the continuation of the utterance is not yet planned. Made-up examples in (4) (adapted from Ozerov 2025, modified), demonstrate how continuations can range between a complete abandonment of the structure in (a), an interrupted resumption in (b), through LD (c) and HT (d), to a smooth clause continuation in (g).

- (4) a. Jane/She, oh, what is that thing over there?
 - b. **Jane**, I went to visit Jack, wanted to check out his new office. He started a new job last week. So turns out **she** is his boss.
 - c. Jane, she was here yesterday.
 - d. **Jane**, Jack is quite depressed about his new job... He doesn't really like **her**, you know. I mean, as his boss.
 - e. **She**, **she** was here yesterday.
 - f. **She**, I saw **her** yesterday.
 - g. Jane, was here yesterday.

Taking this range of examples seriously suggests that classic LD-structures in (c) and (d) are merely occasional collocations of detached NPs followed by a clause. The

resumptive pronoun in (c) does not differ from anaphoric pronouns appearing later in discourse in (b) and (d). Moreover, examples (e)–(f) indicate that referent activation is orthogonal to detachment. Selecting (c) for the study of LD and (d) as a HT-sentence type, but ignoring the other examples driven by the same discourse processes, is a biased research procedure based on the pre-empirical assumption that LD-structures form a sentence type. All the structures in (a)–(g) are compositional constructs of the separate contributions of the initial NP and the follow-up discourse. The apparent topicality effects of aboutness or frame-setting in (c) and (d) can thus be re-analysed as occasional and epiphenomenal of the general relevance (Grice 1975; Sperber & Wilson 1996) between the initial referent and the consecutive material.

Hence, study of natural interaction suggests that one should explore the entire set of initially detached NPs, and only as a follow up step to explore whether LD form a separate set, whose function or distribution frequency could not be accounted for compositionally. If such functions or distributions are not observed, the ensuing analysis suggests that topicality effects in LD are not a primitive notion of communication and cognition, but are derivative of more basic cognitive and discourse factors present across all detached NPs. The analysis of these factors offers both a richer and more parsimonious model of information structuring (Ozerov 2021a).

Taking into account the syntactic profile of the analysed language complicates the matters even further. The studies surveyed above deal with languages characterised by the SVO structure of the main clause, while English and German also exhibit a rich usage of pronominal reference. The situation is more problematic for verb-final languages with little explicit expression of accessible referents ("radical pro-drop"), such as Japanese and Korean. The criterion of an extra-clausal NP constituent becomes elusive, as a prosodically detached NP will always precede the verb and thus can be regarded as extra-clausal, with a zero-reference in the verbal clause. The primary functional counterparts of LD-structures in this case are argued to be Hanging Topics and dedicated particles typically regarded as "Contrastive Topic markers" (CT), such as Japanese -wa and Korean -nun (Maslova & Bernini 2006). Importantly, the analysis of the two particles along the lines of contrastive topicality has been questioned in studies of spontaneous interaction (Kim 2015; Tanaka 2015; Morita & Kim 2022). Both phenomena are illustrated jointly in (5) for Korean, where the "CT"marked constituent is also a detached NP with no grammatical role in the subsequent clause, and as such forms an HT structure.

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(5) Korean (kor; Koreanic; Kim 2015: 99)

yenkuk yensup-un, han twu-tal yensup ha-ko
play practice-CT, about two-month practice do-and

'As for the practice for [my] play, [I] practice about two months and...'
```

Nonetheless, examples of proper LD-structures with co-referential resumptive constituents are attested also in this kind of languages (Matsumoto 1998: 432; Yamaizumi 2011), albeit appear to be less frequent.

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(6) Japanese (jpn; Japonic; Yamaizumi 2011: 79)

Sakihodo = no mittu = no zyôken, kore = wa tune = ni atama = ni

former = GEN three = GEN condition this = CT always = DAT head = DAT

oi-te kentô-si-te ik-i-mas-u

put-NF consider-do-NF go-LINK-PLT-NPST
```

'The former three conditions, these [we] will always bear in mind and take into consideration.'

In addition, Matsumoto (2003: 80) discusses "lead NPs" in spontaneous Japanese, which are parallel to the notion of detached NP exemplified in (4). "Lead NPs" are prosodically detached nominal constituents, which merely activate or maintain the activation of a referent in the discourse. It is only the continuation that reveals whether they evolve into arguments of a clause, Hanging Topics, or remain "stray".

Following the same idea, this study explores detached NPs in another verb-final language, examining the totality of NPs produced as prosodically separate constituents in yet underspecified syntactic structures. It explores the interactional factors linked to the formation of detached NPs and the array of their continuations. Finally, it explores whether LD-structures deserve the analysis of a special sentence type, or whether they are merely occasional by-products of detached NPs followed by a subsequent clause in the dynamically evolving interaction. The rest of the paper is structured as follows. Section 2 provides the background on the Anal Naga language, the data and the methodology for the study. Section 3 describes the surprisingly rare occurrence of updating detached NPs in Anal Naga. Section 4 discusses the prosodic evidence for the separate role of the detached NP, planned separately from and prior to the upcoming talk. This observation applies irrespective of the fact whether and how the talk is continued after the detached NP, with LD-type structures showing no

peculiarities in function or distribution frequency. This already suggests that their view as an activation or announcement of the topic for the immediately following proposition cannot be upheld. Section 5 explores the motivations for the detachment of the NP. It demonstrates that a substantial share of the cases is unrelated to topicality and referent activation, but is a result of interactional turn-management. Section 6 analyses the multimodal cues accompanying the production of detached NP and shows that these perform local discourse tasks of attention alignment. Section 7 concludes the paper, accounting for detached NPs through general interactional processes and attention. It finally discusses how effects associated with topicality are epiphenomenal products of these factors, suggesting that topicality as a linguistic, pragmatic, or cognitive concept is not needed for their analysis, glosses over the actual processes, and is irrelevant for interlocutors in natural interaction.

2. Language background, data and methodology

Anal Naga is a Trans-Himalayan (also known as Sino-Tibetan) language of the North-Western group (called 'Old Kuki' in previous literature) of the South-Central (formerly: "Kuki-Chin-Mizo") branch. It is spoken by a community of 20,000 people in Chandel District of the Indian state of Manipur, near the India-Myanmar border. The community forms part of the ethnopolitical union of Naga tribes (hence 'Anal Naga'). Typically for the languages of the area, the morphemes in Anal Naga are predominantly monosyllabic. Vowels have a binary distinction of vowel length (short and long) and tone (high and falling-low). The noun can be accompanied by possessive prefixes, demonstratives, case-marking, pragmatic particles and postpositions. The structure of the verb is highly complex, with different paradigms for transitive and intransitive verbs, two root forms (glossed V_1 and V_2), hierarchical person indexation, complex TAM-marking, numerous categories marked by verbal affixes, and limited noun incorporation. There are a few strategies of verbal nominalisation, that derive syntactic nouns from stems or from conjugated verbs.

The syntax is strictly verb-final in planned speech. Rarely, NPs occur post-verbally in spontaneous language. The expression of contextually recoverable referents is optional and the order of the preverbal constituents is pragmatically driven. The grammatical alignment on nouns is ergative-absolutive: the marking of the only argument of intransitive verbs is similar to the marking of the argument

expressing a Patient-referent with transitive verbs (-to ABSOLUTIVE); the marking of the Agent-argument is $=t\tilde{u}$ (ERGATIVE). The case marking is optional (differential), and the same arguments can also be expressed by NPs unmarked for case. Examples (7) and (8) illustrate the structure of intransitive and transitive sentences with overt absolutive marking.

- (7) anm_20160917_LamphouPasna_Thotson_teashop 40" $t \varphi a p^h e to$ $a h \acute{u} \eta t \varphi \grave{a}$ buffalo-ABS CIS-ascend.PERM-PFV

 'The buffaloes have come home.'

The study is based on seventy minutes of multimedia recordings of Anal Naga speakers in their natural everyday settings. The interactions take place as co-villagers sit on the porch of one's home or during food preparation. The examined recordings were collected in six sessions in different locations with the total of twenty-six core participants, using Zoom Q8 camcorder paired with a SSH-6 stereo shotgun microphone. The studied collection belongs to a larger corpus of natural interaction in Anal Naga, collected, transcribed and translated by native speakers in 2016 with the financial support of ELDP (SG0428) (Ozerov 2018). The corpus is archived by ELAR and the multimedia files are available online along with their transcription in the ELAN formats (Wittenburg et al. 2006). Each example is referenced by the recording title and its time stamp.

Apparent examples of LD structures are attested across the analysed corpus: (9) shows a LD with a resumptive demonstrative, and (10) is an example of a location-specifying HT (with no explicit locative marking) followed by an LD structure, where the resumptive expression of the P-referent is coreferential with the extra-clausal detached NP.

(9) anm 20160808 group Thangwar ling 4'45"

```
va-said = so,
                         lé-há
                                  va-kà-vál .
   3-side(Eng) = ADD
                        DIST-to 3-shoot<sub>2</sub>-PFV
   'And that side, he has shot it over there.'
(10) anm 20161210 phiran khullen gathering outside 1 7'29"
          am \acute{a}-s\acute{a}:l-e = na?
                                     mí:.la-to,
                                                            bol-khé:
     aη
    PN
          3-area-DEM2 = AGR.SEEK pine.firewood-ABS stem-one
    p^{h}<u>u</u>l-lé:ló-hín-n<u>ú</u> = na = e.
    cut_1-IDEO.OPENLY-PL\1-NFUT = AGR.SEEK = DEM2
    'Ang, that area, eh? Pine firewood – we cut one stem.'
```

It could be tempting to regard (9)–(10) as instances of LD-structures, collect similar examples, explore their usage contexts and analyse recurrent interpretive effects produced by them as the function of the construction. For instance, in all these examples the initial NP introduces a referent, so that the subsequent sentence contributes information as "about it" or as restricted to the frame set by this referent. Hence, this analysis could contribute to cross-linguistic studies of topicalisation, corroborating further the assumed universality of topicality as a linguistic and cognitive category.

However, this procedure would be biased by the assumption that (9)–(10) represent indeed basic constructions/sentence types, to which speakers resort for achieving a certain effect and due to specific pragmatic conditions. It would distort the actual structuring process of a dynamically unfolding utterance, where speakers have no "bird'seye view" of the upcoming structure (Hopper 2011). They first use a NP separated into its own Intonation Unit (IU), and then face a variety of potential continuation trajectories. As shown below, there is substantial evidence that the detached NPs perform a local interactional task, while the continuation has not been planned yet. Hence, for the examination of these apparent cases of LD, one must explore the entirety of detached NPs. It is only in the next step that the study should analyse whether the compositional account of detached NPs and their continuation also successfully addresses the LDstructures. Only if the distribution, frequency or function of LD are unpredictable from the compositional account, should we postulate a separate dedicated structure of this kind for their analysis (Goldberg 2006: 5). Following the methodology implemented for the study of LD-structures in Modern Hebrew (Ozerov 2025), detached NPs are defined for the purpose of this study as follows.

DETACHED NP – a NP that occupies a separate IU or is spread across more than one IU with no other constituents occurring in these IUs. It neither complements nor is predicted by the already unfolding syntactic structure; alternatively, it occurs as the last constituent of an IU, initiating a new syntactic structure.

This is a working definition that singles out utterances whose dynamic structuring is initiated by naming a NP and immediately finishing the IU. It includes bare NPs, NPs marked by "pragmatic particles" (such as "contrastive-topical" = te, or additive = so in (9)), and NPs with differential case markers of direct cases -to and $-t\tilde{u}$. It does not include NPs with postpositions. The inclusion of NPs that terminate an IU initiating a new syntactic structure mostly addresses examples where the NP starts a new content clause, such as And then I thought this woman,.... Vocatives were excluded from the data. Follow up studies can expand the analysis for other constituent types in the same dynamic interactional perspective on syntax.

Based on this definition, the data was manually collected from the selected recordings resulting in 214 tokens of detached NPs. Since the analysis relies on multimodal aspects of interaction, thirteen examples have been excluded because the speakers' were outside of the filmed frame. The remaining 201 were coded for a range of formal, pragmatic and interactional factors:

- the final contour of the IU
- the form of the NP (noun, pronoun, demonstrative markers, pragmatic particles, case-markers)
- interlocutors' response (backchannelling and gazing, subject to the limitations of the recording equipment)
- disfluency markers
- recycling
- referential status (discourse new, re-activated, contextually given, situationally given (exophoric), inferable, referent elaboration)
- syntactic continuation (regular syntax, LD, HT, syntactic repair, abandoned)
- turn-taking (NP used for turn-taking, NP in the unit that follows turn-taking, turn-maintaining for NPs occurring after >1s pause within the speech of the same speaker)
- multimodal aspects whose onset and endpoint align with the NP-production (gaze shift, co-gesture, co-action)

Out of the 201 examples of detached NPs, 32% (n=65) represent (or, in the dynamic view of syntax, rather evolve into) LD-structures, while the other detached NPs are incorporated into regular constructions (36%, n=73), or are either abandoned or are followed by repair that modifies the initial formulation attempt (32%, n=63). Based on these data, the study explores the usage of detached NPs, subsequently situating the formation and usage of LD-examples in the overall findings.

The following sections present the findings of the study, describing the most salient contexts where detached NPs are used and the interactional tasks performed through detached NPs, cross-relating these findings with the apparent LD-type structures in (9)–(10). However, a word of caution is due with respect to the interpretation of these findings. It should be kept in mind that the identified contextual factors have not been examined independently, in their entirety for other syntactic configurations which could equally (or more prominently) characterise them, compared to detached NPs. Hence, it would be erroneous to regard a context in which a large group of detached NPs is attested as stipulating for this specific configuration. A broader study of the relevant conditions can potentially reveal a more general characterisation for the morphosyntax of structures that this context triggers, with detached NPs being merely a particular case thereof. For instance, it can be seen that a prominent group of detached NPs appears in the context of turn-taking. However, we have not examined the entirety of structures used for turn-taking. A follow up broader study on this issue can reveal, that the majority of turn-taking units are in fact either full clauses or cutoff chunks. In such a case, detached NPs would be merely a particular case of the latter.

3. What detached NPs are mostly not – updating NPs

It can be helpful to outline first what detached NPs in Anal Naga are (mostly) not, as in this aspect they differ from findings stemming from a few different languages addressed in previous research. In the study of "unattached NPs", Ono and Thompson (1994) draw a distinction between "referential" and "predicating": the former negotiate referents that must be tracked in the ensuing discourse ("topical"); the latter provide new information about a previous referent or situation assessing, characterising, classifying or labelling it ("focus"). In their American English data, the prevalent share of NPs (80%) is predicating. In Finnish these were also found to

constitute the largest group, albeit to a smaller degree (59%) (Helasvuo 2019). Parallel findings are also reported for Modern Hebrew (44%) (Ozerov 2025). As opposed to these findings, such usage of detached NPs, illustrated in (11), is very infrequent in the examined Anal Naga data. Instead, NPs providing the sole update of the utterance tend to be accompanied by a copula.

(11) anm_20161210_phiran_khullen_gathering_outside_1 9'20"

The speaker is observing a group of villagers, who unusually leave for the field on Sunday, which is the resting day of the community. Shifting the gaze to the people in front of her she utters:

 $aj\tilde{\delta}$: $h\acute{a}$ - $k\acute{i}$ $n\acute{u}\eta = n\hat{e}$

tomorrow-gen work = AGR.SEEK

'The work for tomorrow, eh?'

Such examples constitute only 6.5% of detached NPs in Anal Naga. Importantly, the studies of English and Finnish mentioned above employed a different definition, as "unattached/free NPs" are defined therein as NPs that do not form a part of a clause in the final syntactic outcome. Nonetheless, also after restricting the analysis to "unattached NPs" following Ono and Thompson's (1994) definition (namely, excluding cases where the NPs evolve into a full clause in the subsequent talk), the share of predicating NPs remains very low (10%). This rate echoes Tao's (1996: 84) findings for focal detached NPs in Mandarin (7%) and Matsumoto's (1998) analysis of Japanese (4.5%), where NP IUs were found to be primarily used for a variety of non-updating functions.

4. Detached NPs as separate discourse moves – prosodic evidence

Intonation Units (IUs) have been hypothesised to constitute information processing units in previous research (Chafe 1994; Pawley & Syder 2000), and neurolinguistic research reveals indeed the connection between prosodic chunking and information flow (Inbar et al. 2023). Within these working assumptions, the link between detached NPs and the separate status of their informational contribution is trivial, each detached NP examined here provides a separate unit of information. In the situation where such units would terminate with a continuing contour and would be smoothly followed by the

next unit, it could be possible to hypothesise that there is a close link between the two units in their planning, production, syntactic structure, and the overall discourse contribution.

The examined Anal Naga data demonstrates that the separation between the detached NP and the subsequent discourse goes beyond their mere partition into IUs, rendering the assumptions regarding their joint planning or a close structural or functional link between the two unfeasible. Most of the examples of detached NPs – 75% (n = 150) – are characterised by disfluent production of the overall sequence of NP+continuation. Disfluencies included in this study are final lengthening of the IU where the detached NP occurs, its prosodic cut off (typically, a very abrupt fall in Anal Naga), a pause above 0.1s (average 0.78s, median 0.66s), or a syntactic repair where the detached NP is replaced or repeated in the immediately following structure. Taking into account NPs with no continuation, the overall share of detached NPs separated prosodically from the subsequent content beyond the mere intonational phrasing is 83%. An example combining pausing and syntactic cut offs is illustrated in (12).

```
(12) anm_20160917_LamphouPasna_Thotson_teashop 4'33"-41" Speakers discuss how difficult it is to raise cattle.<sup>1</sup>
```

```
a. turende,
```

but

'However,

b. i-ju-tça náni-hin-he na-dá:-hín-he,

NMLZ-raise₁-A.PERS INCL-PL-DEM1 INCL-self-PL-DEM1

> we people who raise cattle ourselves,

```
c. atu\eta = be, ...1.24s...

now = EMPH

now, ...1.24s...
```

d. na-mí-hín ...0.48s... o:lu-lulu,

INCL-eye owl[Eng.]-like

¹ Final contours are marked as '.' for final terminating, ',' for continuing, '?' for the appealing rise-fall, '::' for hesitation lengthening, '--' for prosodic cut off (an abrupt fall to creaky voice). Pauses are marked as ...seconds... [] marks overlap. < cue > speech > marks vocal cues co-occurring with speech. To facilitate the discussion of the examples, Intonation Units are numbered as (a), (b), (c) etc. Arrow bullet points mark the detached NP targeted in the discussion of the example.

The first detached NP of interest here is found in (b) ('We people who raise cattle ourselves'). Although it could be traditionally analysed as LD cross-referred with the possessive pronoun in 'our eyes', the two are separated by another IU ('now' in (c)) and a very long pause of 1.24s. Thus, 'our eyes' in (d) is evidently planned long after the detached NP and only following a very long hesitation.² The next detached NP in (d) 'our eyes' is again followed by a very substantial pause, as well as an intervening syntactic material unrelated to the ongoing syntactic construction. Once the speaker returns to the relevant structure, he repeats the noun 'eyes' in (f). All these facts indicate that upon the production of detached NPs in (b) and (d), the speaker had limited his planning to the local naming of the referent and started planning the continuation only in the next step. The detached NP and the continuation do not form a syntactic construction together, and the function of the detached NP cannot be analysed as already having in mind its relationship to the following discourse. It is not the case that the speakers announced the topic for the upcoming proposition; instead, they named a referent and abandoned the structure. However, they used the accessibility of this referent in their subsequent talk.

Although the overall phenomenon could typically be regarded as disfluency, only 13% of the discussed cases are characterised by a disfluent production of the detached NP itself, namely by a final lengthening or a prosodic cut-off. In most cases (60.5%), the detached NP ends with a regular continuing contour (as it happens in (12)). It is only after the completion of the smooth NP production that the speaker enters the hesitation stage. Moreover, in the remaining 26.5% of cases, the NP forms a deliberately separate discourse move, with either a terminating or an appealing final contour. These facts suggest that the local goal of the speaker upon the delivery of

² According to the definitions of this study, this example is not included in the set of disfluently produced sequences of detached NP+continuation, as there is no pause between the NP and the subsequent IU (c) 'now'.

the NP is restricted to centring attention at the referent and potentially requesting the interlocutor's acknowledgement of the referent's identification. It is only once this achievement is secured that the speaker moves to improvise the continuation with respect to the often vaguely conceived relevance of this referent. This process is illustrated in (13).

(13) anm_20160917_LamphouPasna_Thotson_teashop 11'24"-29"

Speakers discuss why children from the community do not succeed in school, unlike children from the dominant Manipuri community.

```
* A: tuiçən = ne?

tuition[Eng.] = AGR.SEEK

'Tuition, eh?'

B: 

mhm

mhm

'mhm'

A: tuiçən pãːkàl, ...0.6s...mí i-he-va.

tuition[Eng.] strength people NMLZ-be.expert<sub>1</sub>-NFUT

'[with]<sup>3</sup> strong tuition... people succeed'
```

The NP 'tuition' is deliberately introduced separately for its negotiation with the interlocutor in (13). The speaker first negotiates this notion, as well as elaborates on it with another detached NP 'tuition strength' in the subsequent clause. Remarkably, both of these concepts are entirely new in the discourse and constitute the main claim of the speaker while the rest of the clause (that others succeed in studies) is fully predictable contextually. As such, pragmatically, the tuition and its elaboration constitute prototypical examples of *focus* in the classical notions of Information Structure. Nonetheless, they are expressed by a structure associated with classic cases of topicality (Endriss 2009), namely detached NPs by the means of which the speaker obtains joint attention on the referent before proceeding to an assertion about this referent. This discrepancy between the contextually expected pragmatic status and the constituent behaviour within the observed information structuring process is important for the overall argument and will be discussed in the concluding Section 7. What is of interest here is that

³ Typologically unusually, instruments in Anal Naga are unmarked.

a detached NP most typically accomplishes a deliberately separate discourse task, and only following its smooth completion the speaker enters the hesitation phase, revealing that the continuation has not been planned yet. The task performed by the detached NP consists merely of naming the referent, and therefore can be regarded as accomplishing an attention centring move or a confirmation of joint attention on this referent (O'Madagain & Tomasello 2021). This attention-centring/maintaining account discussed here may appear to evoke the same idea as the topicalization analysis – the detached NP is used to achieve joint attention at a referent, while the continuation provides information to which this referent is relevant. However, the proposed analysis differs from the PSRR model in many crucial issues.

One central issue is the theoretical role of the sentence-level notion of topic, defined either as an aboutness-based or as a frame-setting concept. In the classic models of Information Structure, this is a basic factor of communication indispensable for sentence interpretation (Erteschik-Shir 2007) and matched to the notion of "cognitive index" required for the processing of linguistic information (Endriss 2009). This cognitive apparatus is assumed to have processing limitations, which result in a constraint, or at least strong disinclination for a simultaneous activation of a referent and its usage as a topic within the same clause. This problem is solved by resorting to LD-structures, considered to be dedicated sentence types which separate the topic activation process (detached NP) from the assignment of the proposition-level topical role to it (the following clause).

Anal Naga data demonstrates that the detached NP and the subsequent material do not form a unified structure and are not planned together. In other words, this is not a dedicated sentence type to which speakers purposefully resort and which has a consistent function, but a collocation of two separate moves: the initial move of naming a referent, and a structurally detached and disjointly planned follow up talk. Moreover, the relevance of the activated referent can last indeterminately into the following discourse without applying to the immediately following clause. This is illustrated in (14), where the speaker introduces a referent using a detached NP in (a) and an additional referent with a detached NP after a long pause in (b).

(14) anm_20161210_phiran_khullen_gathering_outside_1 5'05"

The speaker starts telling how he and his friends were attacked by wild bees.

'There was a beehive hanging like that.'

e. ...2050... va-thí:-nól-má-vá

...2050... 'he didn't see it.'

3-see₂-AUG-NEG-N.FUT

After introducing the two new referents in (a) and (b), the speaker keeps talking about another previously introduced referent 'beehive' in the following two clauses in (b) and (c). He finally returns to the referent from (a) only in (e), after two clauses, two extremely long pauses, and turn-terminating final contour in (d).

Instead of demonstrating properties of topicality, detached NPs suggest that this concept is unnecessary for the analysis and is epiphenomenal of more basic and well-established cognitive and interactional processes. The detached NP aligns attention on a referent, with attention and its alignment being general cognitive factors (Siposova & Carpenter 2019; O'Madagain & Tomasello 2021). This analysis requires no further postulation of domain-specific Information Structural cognitive category for topicality as a "cognitive index" (Endriss 2009), let alone specific constraints on it. The referent at the centre of joint attention is later interpreted as relevant to the following discourse due to basic principles of pragmatics (Grice 1975; Sperber & Wilson 1996). This relevance can produce an epiphenomenal impression of aboutness or frame-setting in a static retrospective examination of the final discourse product. However, this retrospective perspective is neither available nor relevant for the

interlocutors, who move dynamically through the utterance as it unfolds in time. They can sufficiently orient themselves at the identification of the named referent at the first step, and its relevance at the next move – with both moves not being linked on structural and planning levels. Consequently, the proposed model derives the same effects associated with topicality (aboutness, frame-setting) from the broader, established factors of attention and relevance, without postulating additional cognitive or linguistic notions and without defining additional sentence types (cf. Tomlin 1997 for topicality; Hopper & Thompson 2008 for interactional reanalyses of binominal sentences as compositional products of separate discourse moves). Apparent topicality effects emerge in this account as epiphenomenal, unplanned, and imprecise by-products of consecutive, structurally unrelated, local interactional achievements. As (13) above demonstrates, such effects emerge due to the incremental utterance planning and production also in cases where the information conveyed by the detached NP does not pragmatically have the topical status, but constitutes the main updating contribution.

In addition, the data examined here suggests that the PSRR-model is problematic, as referent activation is orthogonal to the NP detachment and also does not appear to incur special processing challenges. Although 67% of detached NPs activates indeed a new or semi-active referent, this finding is not sufficient for an argument that the referent activation is the reason for the detachment. Since the expression of contextually predictable referents is optional in Anal Naga, non-active referents are expected to prevail in the overall count of NPs. Currently, no data of this kind is available for non-detached NPs. However, for one thing, the share of active referents among the detached NPs is very high (33%). For another thing, the share of inactive referents is nearly identical between detached NPs with and without disfluency. These observations suggests that referent introduction itself is not the cause for the disfluency between the NP and the subsequent discourse. Moreover, referent activation at the onset of an utterance typically does not result in its separation as is shown in (15). Such examples lie beyond the scope of this study and have not been collected systematically, but appear to be not exceptional.

(15) aro: va-tò:m-kà-hín-to a-húŋ-hòl-jè-nú

EXCL 3-bear-shoot₂-PL-ABS CIS-up.PERM-bring-3PL-NFUT

'Oh, as they brought here the bear that they shot.'

Finally, sections 5 and 6 below show that the relation between activation, clause-level aboutness and detachment proposed in previous literature relies on premature cognitive models. It assumes an immediate link between the observed linguistic factors and cognitive aspects of information processing, as if syntactic or prosodic detachment provided direct evidence for the cognitive apparatus. As will be shown below, cues from turn-taking and multimodal aspects of detached NPs suggest linking detached structures to processes of intersubjective interaction management, and not to immediate cognitive factors.

Before proceeding to the examination of these processes, it remains to be shown that LD-structures do not have a special status among examples of disfluency. Indeed, the share of LD-structures is identical in the overall data and in the examples exhibiting disfluency – 38%. The numbers for detached NPs evolving into a regular clause are also nearly the same (36% vs. 37%). The rest of the examples result in structural repair or are abandoned. LD-structures do not demonstrate any salient frequency in the disfluency contexts and do not form an identifiable construction nor emerge as a strategy for solving the disfluency challenge.

Finally, the similar share of detached NPs evolving into clauses with a regular syntax suggests that clauses can similarly be a product of incremental, disjoint utterance structuring. Speakers first opt for an improvised, contextually most promising constituent without envisioning the continuation (Hopper 2011). It is only once this starting point has been chosen, that they take advantage of the continuation options it enables. The overall clause emerges in this process as increments built on top of one another, without being a product of an encompassing pre-planning (Thompson 2019).

5. Detached NPs and turn-management

Turn-taking was identified in the previous research as a salient environment for the occurrence of LD-structures. It was proposed to be the reason for the LD-usage in Italian (Duranti & Ochs 1979). In French, LD structures were similarly found to be used for gaining access to the floor (Pekarek-Doehler et al. 2015). However, in the study of detached NPs in Modern Hebrew, the findings suggested that it is not that LD structures are used for this purpose, but rather that turn-taking is often performed by clause chunks, with NPs being a common choice which allows broad continuation options. The continuation is further planned only once the turn is secured, potentially producing a two-step LD-like collocation (Ozerov 2025).

In Anal Naga data examined here, 55% of detached NPs occur in the context of turn-taking, either in the IU with which the speaker takes the turn or the immediately following one. Although it is impossible to assess this number with no exact data on the average of IUs per turn, it will not be inaccurate to state that IUs serving for turn-taking form overall a minor group within the overall discourse. Consequently, the detached NP structure appears to be overrepresented in this context.

One salient usage of detached NPs found with turn-taking is linked to the securing of the primary recipient's attention through gaze alignment and occasionally prosody that takes place on the first constituent of the utterance. This is illustrated in (10) above, repeated here as (16). The utterance exhibits turn-taking accomplished simultaneously by a vocative, an attention requesting final contour (Ozerov 2021b), and gaze alignment.⁴

(16) anm_20161210_phiran_khullen_gathering_outside_1 7'29"

The speaker until this extract has been the leftmost old woman wearing a white shawl. Her primary recipient is the man next to her (the leftmost participant), who gazes at her, as does also the woman seated to the right of the speaker (Figure 1). At this point, the woman standing on the right interrupts the speaker, selecting the man as the primary recipient.



Figure 1.

an $am\acute{a}$ -sớil-e = na? (Figure 2) $m\'{c}$: la-to, PN 3-area-DEM2 = AGR.SEEK pine.firewood-ABS

⁴ The figures accompanying the example are aligned with the transcription situated below the image. The first image above the transcription presents the state of the interaction on the onset of the example, before the first utterance. Thin arrows show gazing, with double arrows representing mutual gaze. Thick dashed arrows stand for pointing gestures and depict their trajectory.



Figure 2.

bol-k^h**é**: p^h **ù**l-l**é**:ló-hín-n**ú** = na = e. **stem-one** cut_1 -IDEO.OPENLY-PL\1-NFUT = AGR.SEEK = DEM2 'Ang, **that area**, eh? **Pine firewood** – we cut **one stem**.'

Although example (16) appears to be a classic case of a Hanging Topic, this is not a coherent sentence type used for a particular topicality-related reason. The first constituent of the utterance, namely the NP is employed to interrupt and shift attention to the speaker, while displaying the relevance of the upcoming, yet unplanned talk. As can be seen in Figure 2, the mutual gaze is obtained precisely at the end of the detached NP.

This usage of detached NPs in the context of turn-taking appears to be an instantiation of their broader usage for securing, maintaining, or monitoring the recipients' attention at the speaker displayed by gaze. The detached constituent also serves as the locus for gaze transition during a search for a new recipient (Goodwin 1980), as happens in (17).

(17) anm_20161210_phiran_khullen_gathering_outside_1 12'34"-37"

The speaker (the man on the left close to the camera) is telling how they were attacked by a male bear during a hunting trip, after shooting the female. The recipient is the man at the back (Figure 3).



Figure 3.

However, as the speaker finishes a stretch of IUs and is about to start the next utterance, the recipient is distracted by a group of women holding a baby next to them (Figure 4).



Figure 4.

> $s\tilde{a}$: ram = $t\tilde{u}$:, (Figure 5) couple = ERG 'The couple,



Figure 5.

va- a-inpú (Figure 6) ka-:-nam-va-hin=lan=mo dà-hín-nú,
 3- 3-husband 1-INV-attack-NFUT-PL=NMLZ.fact=PROB say-PL-NFUT
 'her- we thought that probably we were attacked by her husband'



Figure 6.

As on the onset of his utterance starting with 'the couple' the speaker stays with no recipient, this clause initial NP becomes the locus of search for a new addressee (Figure 5). He starts gazing at the woman in the right low corner of the image at the start of the next IU, but first false-starts (*va*- 'her') due to receiving no return gaze. Finally, he restarts as the gaze becomes reciprocal (Figure 6). Although it appears again as an example of HT ('[Them being] a couple, we thought that it is the husband attacking us'), the detachment is driven by unplanned interactional factors and has no relation to a planned structuring of information and its mapping onto presumable categories of topic and focus. The speaker starts replanning the utterance only once he finds a new recipient. He can take advantage of the activated material relevant for his continuation, but the detached NP and the subsequent clause do not form a syntactic structure with a dedicated function. This is an epiphenomenal collocation emerging from responses to local discourse contingencies.

Similarly, to the case of disfluencies between the NP and the clause, LD-collocations in the context of turn-taking are not characterised by a deviant frequency of occurrence relative to the overall cases of detached NPs, nor do they have any compositionally unpredictable usages. LD and HT together form 28% of the cases, while detached NPs evolving into regular clauses represent 33% of examples in the environment of turn-taking.

Some utterance-initiating detached NPs employ given – recycled and resonating – material, echoing previously used structures. This is done for the purpose of foreshadowing the relationship of the upcoming talk to the preceding discourse, such as displaying a collaborative uptake of the interlocutor's turn. For instance, in (18) the speaker is struggling to find an answer to the question that he has been asked. Filling the pause with the detached NP, fully repeated from the interlocutor's question, serves to demonstrate his intent for a collaborative answer.

(18) anm_20161013_Jm_Dutang_home3 9'23-9'27"

Speaker A visits the village with a friend. Interlocutor B is their host and starts preparing the dinner for them. The speaker informs her that his friend has unusual food habits and names a few things that he does not consume.

B: hal-dú=tê? chicken-egg=CNTR 'What about eggs?'

```
A: <slowly <hal-d\acute{\mathbf{t}} = he::>> ...1.3s... chicken-egg = DEM1 hal-d\acute{\mathbf{t}} = so tç\acute{a}-m\acute{a} = mo d\acute{a}:.mo. chicken-egg = ADD eat-NEG = PROB something 'Eggs... He probably also does not eat eggs.'
```

However, heavy starting points, namely NPs expressing brand new discourse referents, are particularly salient in the data and account for the 70% of the detached NPs found in the turn-taking context. This is shown in (19), where the speaker repeats the detached constituent in the subsequent clause.

(19) anm_20161210_phiran_khullen_gathering_outside_1 3'55"–59"

Speaker A has not participated in the immedaitely previous talk and is situated at the edge of the interlocutors' formation. She initiates an entirely new discussion.

```
A: pak^ha = te-...1... m pak^ha = te d\acute{a}: tu\eta a-jol-va-hin = mo.

walnut = CNTR uhm walnut = CNTR how 2-sell-NFUT-PL = PROB

'Walnuts, how [much] do you sell walnuts [for]?'
```

This is likely to be related to the verb-final syntax of the language and the common lack of expression of highly accessible referents. As a result of that, in the case the clause is OV, preverbal NPs expressing Patient-referents of low accessibility are common starting points. While it poses no problem by itself (see (15) above), as a starting point the P-argument is a likely locus of an interactionally driven or other kind of NP detachment. Interestingly though, heavy starting points result in an occasional strategy of turn-taking with a cataphoric or dummy pronouns, as the speaker plans their upcoming turn. The overall outcome is the mirror image of the classic LD, where the referent is first foreshadowed by a pronoun, with its subsequent resumption by a full NP. This is shown in (20), which is a direct response to the question in (19).

```
(20) anm_20161210_phiran_khullen_gathering_outside_1 4'00"-07"

A: [amá-hín-he = te, ...1s...]

3-PL-DEM1 = CNTR

They'
```

```
B: [(incomprehensible talk by B)]

A: amá-hín-he = te, ...0.3s... lé < pointing > namse:l = te,

3-PL-DEM1 = CNTR over.there PN = CNTR

'They, over there < pointing > Ngamsel'

sum.paŋa ka-jol-ti-ja:-va dà-nú.

fifty 1-sell<sub>2</sub>-DISTR-ONLY-NFUT say-NFUT

'He said he sells that for fifty.'
```

Remarkably, pronouns *amá* '3' and *dá:.mo* 'something' function as hesitation-fillers in turn-taking and constitute 13.5% of the detached NPs. The speaker takes the turn merely foreshadowing an upcoming referent, and only then proceeds to plan the utterance and choose the NP in the subsequent clause.

6. Multimodality, action, and detached NPs

As shown in Section 4, the very strong tendency of detached NPs for a substantial prosodic separation – beyond their mere production in a separate IUs – suggests their separate planning. This finding may appear to echo the cognitively oriented analyses of sentence topic and topical constraints, in particular the PSRR ("Do not activate a referent and talk about it in the same time"). However, as argued in Sections 4 and 5, the cognitive views of topicality are premature in deriving cognitive architecture directly from linguistic observations. Detached NPs do not represent sentence-level topics or their activation, as prosodic and syntactic factors discussed in Section 4 suggest that the NP and the subsequent talk are not planned together. As such, they do not form a construction aimed at solving sentence-level constraints, but a collocation of two different discourse moves. The relevance of the named referent lasts indeterminately into subsequent discourse and is not restricted to sentence-level topicality or framing. Consequently, its contribution should be evaluated both locally and globally with respect to the overall discourse. Moreover, it has been shown that detached NPs frequently activate no new referent, and new referents trigger no detachment. The presumable linking between syntactic-prosodic detachment and cognition is a speculative model of information processing based on intuitive assumptions about syntactic planning and examination of audio recordings. Indeed, prosodic data discussed in Section 4 exhibits substantial shares of prosodic detachment, hesitation, and pauses, linked in previous research directly to syntactic and semantic planning (Ferreira 2007). However, disfluencies can be and very commonly are triggered not by planning difficulties but by

interactional, turn-managing factors (Goodwin 1980), and Section 5 demonstrates this for Anal Naga detachments.

This section discusses multimodal aspects of detached NPs, providing further evidence that detachment should not be linked to cognitive processes directly as is suggested by co-gesture and speaker's behaviour overlapping with the production of the detached NPs. It gives additional support to the argument that speakers do not engage solely in attempts of smoothly structuring coherent clauses for communicating propositions. Instead, or in addition to that, they produce deliberately separate attention-centering moves. Once the joint attention has been achieved, they build upon this temporary outcome to develop their message further. Speakers approach utterance formation as an incremental, step-by-step improvised task. Consider example (21).

(21) anm 20160918 LCharu Rockson chat 8'27"-31"

The participant on the left is telling another interlocutor (outside the frame) about the job of the person sitting next to the camera. Finally, the discussed person takes the floor with the following utterance, gazing at the interlocutor outside the frame.

 $n\hat{i} = te$, (Figure 7) 1 = CNTR



Figure 7.

amá (Figure 8, left) $m\acute{o}l-k\acute{i}$ (Figure 8, centre) lain=he (Figure 8, right), 3 hill-GEN line [Eng.] = DEM1







Figure 8 (left, centre, right).

ní ka-pù:-vá.

1 1-carry-NFUT



Figure 9.

'I, this [electricity] line in the hills, I am responsible.'

The speaker in (21) first takes the floor claiming his epistemic authority on the discussed issue through the detached first person pronoun, that foreshadows his own perspective on the matter. Jointly with that, he gazes at the interlocutor in front of him, who has inquired about the speaker's job. Building upon the discussion in Section 5, this detachment has no other motivation but interaction structuring, namely the management of floor-control and epistemic authority.

In the next move, the speaker introduces the electricity line that connects hillside villages. This detached NP is produced as the speaker raises his eyes up looking into the sky (arrow) and produces a depicting gesture with a back-and-forth sweeping hand, while pointing above his head (dashed double arrow). Towards the end of the movement, he gazes at the recipient again (arrow). This prosodically separate naming of the electricity line, orchestrated with pointing, depicting, and gazing, achieves the local goal of aligning the joint interlocutors' attention at it. Importantly, the next structure is produced with another, self-pointing gesture temporally coinciding with the first person pronoun. The typical restriction of a single gesture per clause (McNeill 1992; Goldin-Meadow 2014) supports further the argument that the detached NP performs a separately planned move relative to the subsequent clause. A direct mapping of this detachment onto a presumable cognitive constraint – postulated based on observations of the same syntactic and prosodic detachments – would be a premature analysis that is not based on known cognitive constraints and ignores the interactional and multimodal nature of reference management as a joint interactional achievement. A similar analysis applies to the detachment in (14) above, repeated here as (22), which additionally demonstrates how the establishment of joint attention can be a gradual interactional process ("referent calibration", cf. Lerner et al. 2012; Shor 2019: Ch. 8.2.2).

(22) anm_20161210_phiran_khullen_gathering_outside_1 5'05"-5'07"

The speaker starts telling how he and his friends were attacked in the forest by wild bees (Figure 10).

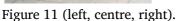


Figure 10.

ka-p- -- (Figure 11, left) 1-un--

ka- $p\acute{u}$ -Monipa--, (Figure 11, centre) pastor- $he = t\~u$, 1-uncle-PN pa-- pastor-DEM1 = ERG









(Figure 11, right) ...0.67...

'My unc- my uncle Moni the pa- pastor, ...0.67...'

The speaker in (22) is sitting in the default ("home")-position with his hands resting down, as he starts introducing the new referent, his uncle. As common in the community, he introduces the referent with a pointing gesture towards the person's house. Initially, he produces an approximate pointing with his right hand (Figure 11, left), but then restarts and performs a more precise finger pointing towards the direction behind his left shoulder accompanied by a head turn (Figure 11, centre), in an overlap with naming the referent and mentioning his social role. Towards the end of this move, he returns to home position (Figure 11, right), and lengthily pauses.

Hence, at this point he has accomplished a single move of a multimodal interactionally negotiated attention alignment on the referent. The subsequent talk has not been planned yet at this point, and as can be seen in the continuation of this example discussed in (14) evolves elsewhere, into describing a tree trunk next to which the uncle was standing and the beehive which was situated on top of it.

Again, although the data on non-detached NPs has not been systematically collected, finding examples of an introduction of a new referent as part of a smooth clause production in a single IU is unproblematic. Interlocutors face no challenge with activating the referent while simultaneously incorporating that information into a larger proposition. Consider (23) where the speaker similarly activates another villager as the Agent-referent, but does so in a single swoop with activating his dogs as the Patient-referent and incorporating both within a full sentence.

(23) Interlocutors discuss hunting. The speaker tells that he is not a good hunter but good at setting traps. He proceeds to report on an incident in this regard, occured as he had covered a small forest area with traps.

'On Sunday, I set 40 traps there.'

 $nint^hoka.ni$ Samuel vi $t^h\hat{u}-n\hat{u}$.

Monday Samuel dog take.along-NFUT

'On Monday, Samuel takes his dogs with him [to hunt there].'

Not only do the interlocutors successfully comprehend the reference while incorporating it into a larger proposition, but they also respond with no delay to the non-trivial conversational implicature of the utterance. As the speaker is still finishing the IU, the interlocutors engage in a joint laughter outburst, inferring that it is the hunting dogs that eventually got trapped. The detachment appears thus to be product of dynamic, multimodally regulated attention distribution as a local interactional achievement, and not a direct expression of cognitive processes.

At this stage, attention distribution can be hypothesised to correspond to locally envisioned discourse needs linked further to amounts of competing information in their regard. There is substantial amount of information that can potentially be communicated about salient referents. Before planning how to proceed about this information, the speaker resorts to centring attention on the referent as a local discourse achievement. On the contrary, transient referents introduced for a single relevant action as in (23) do not require opting for such a move.

The talk following this multimodal referent introduction is interpreted vaguely as being relevant to this referent – in aboutness or frame-setting terms – due to basic

principles of ostensive communication (Grice 1975; Sperber & Wilson 1996; Scott-Phillips 2015). Thanks to the separate attention centring move, the referent remains accessible in the subsequent discourse, making it possible to return to it after a substantial excursus as happens in (14). In other words, the detachment does not arise in attention-aligning cases as a means for expressing topicality or dealing with unusual topicality conditions. It is analysable by the general notion of attention combined with independently established principles of dynamic interaction.

Finally, introducing a new referent is not a necessary component of multimodally accomplished moves of interactional attention alignment. Detached NPs can be employed to maintain and monitor attention on an already active referent at the centre of joint attention, and as a time-gaining strategy foreshadowing the need for keeping the attention at the referent as the continuation is being planned. This is shown in (24).

(24) anm_20160808_group_Thangwar_bow 1'19"-24"

Elderly speakers tell a younger person about the poison used in former times in bow and arrow hunting. The poison is the main topic of the discussion for substantial time at this point.

```
A: amá arú:-he?
```

3 poison-DEM1\AGR.SEEK

B: *m*

mhm

A: amá arú:-he:: ...0.3...s t^h ìŋ vá.

3 poison-DEM1 tree COP

A: 'This poison, eh?

B: Mhm

A: This poison... ... 0.3s... it is a tree.'

Again, LD-examples with an attention-aligning function do not form a special group with respect to their frequency. Their number is equal to the number of detached NPs abandoned or repaired in the subsequent clause, and is smaller than the number of detached NPs evolving into a regular clause. Importantly, turn-managing detached NPs (Section 5) and attention-aligning detached NPs (this section) constitute jointly 87% of all the examined detached NPs and account for 85% of cases evolving into LD-type configurations. It is these interactional factors that underlie detachment, with

information structural interpretations being their epiphenomenal effects irrelevant for the dynamic interpretation of referents and their discourse roles.

7. Conclusion

This study has examined Left Detached structures – classic Left Detachments/Dislocations and Hanging Topic constructions – in a multimodal perspective in a corpus of natural interaction in Anal Naga, a Trans-Himalayan (Tibeto-Burman) language of Manipur (India). At first sight, examining only the examples of LD-structures from the corpus, may appear to support the common assumption that these pre-clausal NPs have a topic-activating function. This would corroborate the presumable cognitive nature and discourse role of topicality, and its proposed architecture (Kuzar & Netz 2010).

However, such findings would be biased by the pre-empirical assumption that LD-structures form a sentence type with a dedicated function. Yet the apparent function of the structure can instead emerge compositionally from a collocation of two separate structures: (i) lexical NPs that most commonly activate a referent (Ariel 1990), and (ii) the following clause that communicates a proposition, as clauses typically do. Relevance relations naturally arising between two adjacent discourse units (Sperber & Wilson 1996) would lead to vague "aboutness" effects in a static examination of this collocation. Unless the structure exhibits functions or frequencies unpredictable by the compositional account, it should not be considered to form a construction (Goldberg 2006:5).

In addition to the compositionality problem, the definition of LD-structures cannot be upheld also from the interactional perspective. Interactional studies demonstrate that "[s]peakers do not possess bird's eye view of an utterance, but rather move forward in time through it" (Hopper 2011: 23). Since a detached NP forms a separate prosodic phrase according to common definitions (Gregory & Michaelis 2001: 1667), it is likely to accomplish a local interactional task (Iwasaki 2009; Szczepek Reed 2012) whose continuation has not been planned yet at the stage of its production. The utterance may proceed not into a clause, but elsewhere, or not be continued at all. As a result, "taking temporality seriously" (Auer 2000), the study of LD-structures must form part of the study of detached NPs more broadly, namely all NPs that initiate a new syntactic structure and form a separate Intonation Unit. Detached NPs should also include pronouns and not only lexical NPs. If these indeed occur as detached NPs,

that will suggest that activation is orthogonal to detachment, and the link between the two relies on the unjustified restriction of the examined data to full NPs.

Finally, previous research of LD-structures in spoken language was based on audio recordings and did not take into account the multimodal cues inherent to interaction (Gregory & Michaelis 2001; Kerr 2014). Examination of the audio signal may suggest a close link between hesitation and cognitive processing of information. However, it has long been known that disfluencies and prosodic partitioning can be triggered by interactional factors, such as a failure to secure the recipient's gaze (Goodwin 1980).

With these considerations in mind, this study examined detached NPs and pronouns in seventy minutes of multimodal natural interaction in interlocutors' everyday settings. Detached NPs are defined here as NPs/pronouns that initiate a new syntactic structure and terminate the Intonation Unit. The study explored a range of interactional, pragmatic, prosodic, and syntactic factors, identifying contexts in which detached NPs tend to occur and the motivations for their formation. It then proceeded to examine whether cases where NPs evolve into LD-structures differ with respect to their frequency or usage. The findings demonstrate that detached NPs are employed to perform a local interactional task irrespective of their continuation and while the continuation has not been yet planned. In 83% of cases, they exhibit substantial detachment from the relevant continuation, such as a long pause and/or intervening structurally unrelated material, or no continuation at all. Importantly, only a fraction of these cases was characterised by a disfluency on the NP itself. In other words, the NP performed a planned local move, and only after its successful accomplishment the speaker entered the phase of planning the continuation. Within these examples, LDstructures do not form a salient or distinct group, as their frequency and functions are similar to other configurations. Consequently, it would be erroneous to regard the NP and its continuation as forming a single syntactic structure, let alone attributing this NP a function within the continuation (in particular, topicality in the subsequent clause).

The study of the interactional aspects of detached NPs revealed that over a half of the cases (55%) are found in the context of turn-taking and turn-maintenance (resuming one's talk after a pause >1s). As in general only a minority of IUs are found turn-initially, the share of detached NP in this context is unexpected. Detached NPs are found to be used as the locus of negotiating the recipient's attention or a search for a new recipient, as can be seen from gaze alignment and prosodic cues. Detached NPs echoing other's talk are employed to display a collaborative continuation to

others' turn, as the content of the new turn is still being planned. Finally, multimodal aspects of referent introduction (co-gesture, gaze alignment, and co-action) indicate that these are multimodally accomplished interactional moves aimed at the local goal of achieving or maintaining joint attention at a referent (O'Madagain & Tomasello 2021). The precise role of this referent in the follow up discourse is not established yet, as is evidenced by local multimodal cues of gaze alignment and co-gesturing, and shifts in the subsequent talk. Finally, a third of detached NPs introduce no new referent, but refer to entities active in the discourse. Nonetheless, their detachment is driven by the same interactional factors of turn-management and attention-monitoring, suggesting that detachment as a syntactic configuration is orthogonal to referent activation. The turn-managing and the attention-aligning uses account for 87% of detached NPs and a similar share of LDs. The rest of examples do not cluster into a coherent group and are found in such cases as inter-turn hesitations.

Based on these findings, the apparent topicality effects associated with detached NPs re-appear as epiphenomenal of broad interactional and general cognitive processes. The detachment is driven by local factors related to well-known interactional and attentional phenomena, and requires no postulation of idiosyncratic constraints belonging to domain-specific cognitive machinery of Information Structural categories. The detached NP does not necessary activate a referent, but also in cases where it does, its role can be accounted for by the notion of attention. When the detached NP is continued by subsequent talk, it is interpreted as relevant to it due to basic principles of ostensive communication (Grice 1975; Sperber & Wilson 1996). A referent's relevance to follow up material can be vaguely characterised as "aboutness" or frame-setting but these coarse interpretive effects require no place of basic communicative or cognitive factors in information structure and processing. Hence, multimodal interactional analysis by general factors of an apparent topical construction allows to disentangle the actual factors that a play role in the dynamically unfolding discourse. These are phenomena of attention-alignment at referents, their relevance, as well securing the right to talk and recipients' attention on the speaker. It is these factors that interlocutors rely on for navigating through unfolding multimodal interaction. Retrospective static effects of topicality or aboutness are irrelevant for the structuring and processing of information in natural dynamic interaction, and cannot constitute realistic factors for the theory aimed at analysing the structure of language and communication (Ozerov 2021a).

Abbreviations

 $1 = 1^{st}$ person DEM1 = demonstrative,NF = non-finite $2 = 2^{nd}$ person speaker's domain NFUT = non-future $3 = 3^{rd}$ person DEM2 = demonstrative,NMLZ = nominalizationaddressee's domain NOM = nominativeA = agentABS = absolutiveDIR = direct relativisation NPST = non-pastACC = accusativeDIRC = directive speech act P = patientADD = additiveDIST = distal demonstrative PTCP = participle AGR.SEEK = agreementDM = discourse marker PERM = permanent goal seeking EMPH = emphatic PERS = personal AUG = augmentative ERG = ergativePFV = perfective BEN = benefactoryEXCL = exclamativePL = pluralcis = cislocativeGEN = genitivePLT = politeness CNTR = contrastiveIDEO = ideophone PN = proper nameCOND = conditionalINCL = inclusive wePROB = probable assumption COP = copulaINV = inverse PROG = progressiveCT = contrastive topicLINK = linker PST = pastsg = singularDAT = dativeN = neuterNEG = negation

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Beyond the topic-marking discourse function of Left Dislocations.

Evidence from Italian, Spanish, and English spoken corpora

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Abstract

Left Dislocations (LDs) are generally regarded as carrying a Topic/Comment information partition and performing an overall topic-marking discourse function. However, when confronted with actual texts, the description of both information structure and discourse functions fails to account for all the occurrences. In this paper, we present a cross-linguistic model for the description of LDs discourse functions, checked against Italian, English, and Spanish spoken corpora. Our results support Prince's view that discourse functions cannot be simply derived by form, demonstrating that prosody, syntax, information structure and discourse functions do not always align. Crucially, we show that LDs are not only topic-marking and that the function performed are shaped by context. Assuming a broader, non-utterance centered perspective, we define LDs as prominence cues used by speakers to signal a disruption in the ongoing discourse, the nature of this discourse prominence being dynamic and evolving as the text unfolds.

Keywords: left dislocation; topicality; prosody; discourse functions; cross-linguistic; spontaneous speech.

1. Introduction: On the topic-marking function of Left Dislocations

Left Dislocations (henceforth LDs) are generally regarded as syntactic structures in which a usually postverbal constituent is found in first position. Consider the following fictitious examples of LDs in Italian (ita; Indo-european, Romance), Spanish (spa; Indo-european, Romance), and English (eng; Indo-european, Germanic) – the languages of interest in this study:

(1)	(It.)	La	torta,	Maria	la	mangi-a.
		ART.DEF	cake	Maria	3sg.f.obj	eat-3sg.prs
(2)	(Sp.)	El	pastel,	Maria	lo	com-e.
		ART.DEF	cake	Maria	3sg.m.obj	eat-3sg.prs
(2)	(En)	The cake	Maria	oote it		

(3) (En.) **The cake**, Maria eats **it**.

These structures are defined by Lambrecht (2001: 1050) based on four criteria: "(i) extra-clausal position of a constituent, (ii) possible alternative intra-clausal position, (iii) pronominal coindexation, (iv) special prosody". These criteria are claimed to apply cross-linguistically in prototypical instances, although only the first is considered necessary (though not sufficient). In Lambrecht's framework, the extra-clausal position of the left-dislocated constituent (criterion i) is directly related to its relevance within the structure and its prosodic prominence.

Given the extra-clausal position of the left-dislocated constituents 'La torta/ The cake/ El pastel' (in 1 to 3 above), Lambrecht argues that their relationship to the rest of the structure is a "kind of relevance relation between the TOP (Topic) entity and the proposition" (Lambrecht 2001: 1058). This relation involves both semantic traits, namely aboutness, identifiability, and definiteness, and contextual constraints, such as givenness and saliency. Thus, the left-dislocated constituent functions as a topic referent "matter of standing current interest and concern" (Lambrecht 1994: 121).

Other scholars contend that, in English and cross-linguistically, traits like topicality or relevance are not always associated with left-marked constituents; in fact, they argue that LDs are only generally discourse relevant (Birner & Ward 1998; Prince 1998). Based on corpus investigations, they claim that the association between syntactic and pragmatic features is "arbitrary" and "language-specific" (Prince 1998: 299).

Similarly, in some strands of Italian linguistic literature, the salience of the left-dislocated constituent is not necessarily tied to aboutness topicality or givenness. Berruto (1985: 227), among others (see also Sornicola 1981), defines it as the "center of interest or empathic focus," grounded in the speaker's "psychological reality" as reflected in the text. In the description of discourse functions, Ferrari (2003) and Cimmino (2024) emphasize the importance of both left and right co-texts and textual dimensions such as thematic progression, logic relations, and textual salience, besides the information structure of the LDs.

In classical Spanish literature as well (Gili Gaya 1961), LDs have been claimed to highlight the affective condition of the speaker or the psychological subject of the utterance (also in later works, such as Fernández Ramírez 1986). According to this view, LDs do not merely anticipate a thematic referent but serve to highlight a particular constituent in the discourse (Contreras 1978). However, in more recent works, the left-dislocated constituents are described as topic elements à la Lambrecht (Casielles Suárez 2003; Sedano 2012).

In Lambrecht's view, the syntactic independence of the left-dislocated constituent is also linked to its phonological realization (criterion iv). These constituents are realized as "independent phonological units," carrying a "degree of prosodic prominence" that depends on the "speech situation" (Lambrecht 2001: 1071), that is on discourse factors, such as the accessibility of the left-dislocated constituent. In a more radical approach, Frascarelli and Hinterhölzl (2007) and Frascarelli (2007) claim that the prosodic contour of LDs varies according to syntactic and functional features of the left-dislocated constituent. They identify three subtypes in which the left-dislocated constituent functions as a Topic performing different roles: aboutness-shift (A-Topic), contrastive (C-Topic), and familiar/given (G-Topic). Crosslinguistically, each Topic subtype is said to have a specific prosodic realization and a distinct function. This is crucial because, in this approach, the discourse functions of LDs are directly derived from formal traits such as prosody and syntactic position.

In both syntactically and functionally oriented strands of the classical literature on LDs, the equation between their prosodic and syntactic form and information function is generally accepted. LDs are typically described as carrying a Topic/Comment information structure and, as a result of this, fulfilling an overall topic-marking discourse function (for Italian: Benincà et al. 1988; Berretta 2002; Ferrari et al. 2008; for English: Reinhart 1981; Lambrecht 1994, 2001; for Spanish: Sedano 2012).

In the following classic example from Lambrecht (2001), the LD "Veal, it is worse" is used to introduce a new referent and to comment on it:

(4) (adapted from Lambrecht 2001: 1074)

Husband and wife at dinner table; H. looks at food on his plate:

'H: It has no taste, this chicken.'

W: VEAL, it is worse.'

However, studies based on actual texts (e.g., for Italian: Sornicola 1981; Berruto 1985; Cimmino & Panunzi 2017; Garassino & Jacob 2018; for English: Prince 1998; Tizón-Couto 2012; for Spanish: Silva-Corvalán 1984; Downing 1997) have shown that this traditional account of LDs fails to capture the full range of their discourse functions. Indeed, LDs have been shown to operate not only in the thematic dimension but also at the logical level (Cimmino 2024) and in the interactional dimension of texts (Hidalgo Downing 2006). The main criticism to a form-function equation view is that the notion of an aboutness Topic used in classical literature is not always relevant in the analysis of real examples. Consider the following extract from Prince (1998), in which the speaker, a rose dealer, comments on the impossibility of cutting certain kinds of roses due to commercial restrictions:

(5) Sure, on the ones we can find locally, we can start cutting ourselves, and we'll probably DO that with Lilac Charm. But **those others**, ... **they**'ve got a lock on them; AND they are vicious people! Not many know this ... but they tried like hell to get S.A. put out of business. (Prince 1998: 287)

The left-dislocated constituent "those others", referring to the restricted cuttings, does not serve the function of introducing a new referent. As Prince herself notes, the referent is not recalled in the subsequent discourse. Instead, the discourse shifts to focus on the "vicious people" preventing the cuttings; the dislocated referent is effectively abandoned.

Based on Frascarelli and Hinterhölz (2007: 87) and Büring (2016: 65) definitions of contrastive topics, Prince's example could be interpreted as such. In the example, the left-dislocated constituent "those others" is implied to be an alternative to "Lilac Charm". Ultimately, looking at the relation between the co-text and LD's information structure is necessary to account for their discourse function, avoiding context-free generalizations.

Following this last line of investigation, in this contribution we disentangle the functional account of LDs from the notion of topicality, showing that, although significant, the topic management functions of LDs are not the only ones at play in actual examples. We show that in spontaneous speech in Italian, European Spanish, and American English, the assumed prosodic and pragmatic relevance of the left constituent (Lambrecht's criterion iv) is not systematically associated with the syntactic traits of extra-clausal position (criterion i), alternative intra-clausal position (ii), and pronominal coindexation (iii). Furthermore, even when all four traits are simultaneously present, there is no consistent correlation between the pragmatic relevance of the left constituent and the assumed topic-marking discourse function of LDs.

Since, in real data, the prominence of the left constituent can serve a variety of purposes – not limited to establishing topicality – we argue that LDs' discourse functions are better understood through the broader notion of discourse prominence (von Heusinger & Schumacher 2019). In this contribution, we therefore describe LDs as prominence cues used by speakers to signal to the interlocutor a disruption in the ongoing discourse, not only at a topic level but also at a logic and interpersonal level.

In the remainder of the paper, we first present our data (§2.1) and the theoretical approach adopted (§2.2). We show that the use of spontaneous speech corpora, enriched with prosodic annotation, allows for the collection and analysis of authentic and naturalistic data in context, within a theoretical framework that integrates textual understanding. Subsequently, we present the results of the analyses at the interface between syntactic and prosodic traits (§3.1), and between prosodic traits and discourse functions (§3.2). We demonstrate that correlations between syntax, prosody, and information structure in LDs are language-dependent, and that discourse functions are ultimately determined by the context of use. We therefore provide further evidence for Prince's argument that discourse functions cannot be derived from form. Finally, we discuss the findings in light of von Heusinger and Schumacher's (2019) concept of discourse prominence (§4).

2. Materials and Methods

2.1. Corpora for interlinguistic comparison and data collection

The cross-linguistic analysis relates to three mini-corpora of spontaneous speech; the languages under consideration are Italian, European Spanish, and American English.

The mini-corpora were selected for their suitability to cross-linguistic comparison of information structure, comparability, and shared design principles. They are part of the C-ORAL project, firstly begun with the C-ORAL-ROM (Cresti & Moneglia 2005; Cresti et al. 2005), which gathers the four main Romance languages, i.e., French, Italian, Portuguese, and Spanish, then enlarged with non-Romance languages such as American English.

Each recording is transcribed following the CHAT-LABLITA format (Moneglia & Cresti 1997; MacWhinney 2000; see §2.2.1 below), an orthographic transcription enriched with prosodic-pragmatic annotations and the text-sound alignment. The process includes segmenting the speech flow into prosodically terminated sequences (TS) and prosodic-information units according to the Language into Act Theory¹ (L-AcT, Cresti 2000; Moneglia & Raso 2014). Within this framework, the TS is considered the basic unit of speech (Izre'el et al. 2020), defined as the smallest stretch of speech that is both pragmatically and prosodically interpretable in isolation. Pragmatic interpretability is ensured by the presence of at least one illocutionary unit, while the prosodic interpretability is marked by a boundary that conveys a sense of conclusion.

More in detail, the Italian mini-corpus (IT) comprises 20 texts (37355 words; 5663 terminated sequences; nearly 4h 37m) (Panunzi & Mittmann 2014). The Spanish minicorpus (SP) comprises 37 texts (40586 words; 6445 terminated sequences; nearly 4h 7m) (Nicolás & Lombán 2018). The American English mini-corpus (AE) comprises 20 texts (26470 words; 3452 terminated sequences; nearly 2h 27m) (Ramos 2015; Cavalcante 2015; Cavalcante & Ramos 2016). The latter corpus was created by selecting texts of the Santa Barbara Corpus (Du Bois et al. 2000–2005) following the guidelines used for constructing the C-ORAL-ROM mini-corpora to ensure mutual comparability across resources. The AE mini-corpus is balanced in terms of communicative situations and information structure of TS². Though it is smaller in

Examples in the following sections include the original corpus ID, structured as follows: language (i = Italian, e = Spanish, a = American English); communicative context (fam = family, pub = public); event type (mn = monologue, dl = dialogue, cv = conversation); two digit recording number; and TS number, preceded by an underscore. For example, ifamcv01_3 refers to an Italian (i) family context (fam), conversation (cv) with a registration number of 01, and the third TS.

² Regarding information structure, the AE corpus is balanced to maintain a consistent ratio between simple and compound utterances. This allows for a relative quantitative comparison of the minicorpora, despite differences in the absolute number of TS, in terms of the internal information articulation within the TSs.

overall size of Terminated Sequences compared to the other datasets, the ratio of words to TSs is similar across the three resources.

See Table 1 for a summary of the three mini-corpora.

Mini-corpus	Texts	Words	Terminated Sequences	Duration
Italian (IT)	20	37355	5663	4h 37m
Spanish (SP)	37	40586	6445	4h 7m
American English (AE)	20	26470	3452	2h 27m

Table 1: Size of the three mini-corpora.³

From the selected mini-corpora, we manually collected all occurrences of LDs based on a linear syntactic definition. We defined LDs as syntactic structures in which the front constituent is extra-clausal and is reduplicated by a co-referential pronoun. This working definition remains valid cross-linguistically, despite the differences in word order and pronoun system between the languages object of scrutiny. As is known, Italian and Spanish are pro-drop languages, in which the subject can occupy both a pre-verbal and post-verbal position; moreover, the pronoun system includes both free and clitic instances (Benincà et al. 1988, for Italian; Fernández Ramírez 1986, for Spanish). On the contrary, English only shows free pronouns and the expression of the subject is obligatory (Biber et al. 1999). To avoid an unbalanced collection of data, we considered both clitic and free pronoun in all languages; hence, we succeeded in potentially including the whole range of dislocated constituents, from subject constituents (resumed by free pronouns only in English).

The fact that the three corpora consist of spontaneous speech events enabled us to analyze authentic and naturalistic data, rather than relying on artificial examples. The prosodic tagging, which marks both terminal and non-terminal boundaries, allows us

³ The Italian and the Spanish mini-corpora are freely available through the online database IPIC (www.lablita.it/app/dbipic, Panunzi & Gregori 2012).

⁴ Part of the Italian data had previously been extracted and used in Cimmino & Panunzi (2017); Cimmino (2023) e (2024); part of the English data had been used in Cimmino (2023). However, in the present study, the dataset has been enlarged for both languages and the respective corpora and data have been checked for their prosodic features, as described further below.

to select those occurrences of LDs in which the dislocated constituent and the coreferential pronoun appear within the same TS – that is, they are not separated by a terminal prosodic boundary (cf. unplanned instances of LDs in Sornicola 1981: 136; Ozerov, this volume).

In particular, we selected 137 occurrences of LD across the three languages. Table 2 shows the number of LD occurrences identified in each mini-corpus, along with their relative frequency calculated both as a percentage of the total number of words and as a percentage of the total number of terminated prosodic sequences (TS).

Mini- corpus	LD occurrences	% of total words	% of total TS
IT	56	0.15%	1.0%
SP	73	0.18%	1.1%
AE	8	0.03%	0.2%

Table 2: Occurrences of LD in the three mini-corpora.

Occurrences are not evenly distributed across the languages. As expected, American English shows a low number of occurrences, compared to Spanish and Italian. Corpora studies based on British English (see a.o. Biber et al. 1999: 957) have indeed highlighted that the average rate in conversation is 200 occurrences per million words (0.02%). This means that in a corpus of our size, one would be expected to find around 5 or 6 occurrences of LD; consistently, we found 8 occurrences.

2.2. A Functional and Textual Theoretical Approach

Occurrences of LDs in Italian, Spanish, and American English have been analyzed using a functional and textual approach. This approach was initially developed for analyzing LDs and Preposings in Italian and English journalistic texts and was later refined for spoken data as well.⁵ The main tenet of this approach is that the functions of LDs must be investigated by considering their interaction with the text in which

188

⁵ The approach has been firstly proposed in Cimmino (2017), preceded by the preparatory works Cimmino (2014, 2016) on written Italian and English LMSs. Then it has been fine-tuned in studies on both written and spoken Italian and English (Cimmino & Panunzi 2017; Cimmino 2020, 2023, 2024).

they occur, in particular, with their thematic, logic and dialogic dimensions and the prominence of the text (as we will show in details below). Studies on spoken Italian LDs (see, in particular, Duranti & Ochs 1979; Ferrari 2003) have shown that the topicality of the left constituent can be exploited to emphasize the salience of a referent in the thematic progression of the text. More radically, in the approach adopted here, we assume that LDs operate beyond the level of the utterance, regardless of whether the structure has a Topic/Comment articulation or not. We thus move away from an utterance-centered perspective in favor of a pragma-discourse approach, which considers discourse segments independently of the informational properties of the LDs under analysis (Kecskes 2012: 294).

Building on this first tenet is the second guiding principle of the present approach: the functions of LDs are described by examining the interactions and preferential associations among their syntactic, prosodic-information, and textual features in context. However, each feature is investigated separately. This perspective aligns with the previously noted lack of direct correlation between form and function in English LDs (Prince 1989). The analyses presented here are thus conducted in a way that disentangles the syntactic and prosodic-information features from the functional description, with functions conceived as discourse-level phenomena.

In the following sections, we elaborate on the theoretical assumptions and tools used to describe prosodic-information and discourse-functional aspects, in §2.2.1 and §2.2.2, respectively.

2.2.1. The prosodic-information interface

The prosodic-information features are analyzed based on the framework of Language into Act Theory (L-AcT), developed by Cresti (2000) (see also Moneglia & Raso 2014; Cresti & Moneglia 2018a). L-AcT is a pragmatic approach used to describe and analyze data collected from spoken corpora in various languages including Romance and non-Romance languages. It arises from an interest in spontaneous language and has its roots in the central role played by the illocutionary activity conceived by the speaker during the communicative events, and prosody, by means of which the speaker produces, and the hearer interprets an utterance.

According to L-AcT, the utterance is the primary reference unit for spoken language. It is considered autonomous and conveys an illocutionary act. The

perception of an utterance in the speech flow is based on its prosodic profile,⁶ and enclosed between two terminal prosodic boundaries⁷ (Izre'el et al. 2020). Utterances can also be further segmented into smaller units (prosodic-information units), which are identified by non-terminal prosodic boundaries.⁸ Although prosodic boundaries are primarily identified through tonal movements, they are in fact signaled by a complex configuration of prosodic and segmental cues, such as final lengthening, pitch reset, pause, pre-boundary creaky voice, intensity changes, and speech rate variations (Barbosa, 2008; Dilley et al., 1996; Mo & Cole, 2010; Mittmann & Barbosa, 2016). These cues often co-occur in complex patterns and may vary according to language-specific preferences and speech style (Barth-Weingarten, 2016; Hirst & Di Cristo, 1998). Importantly, the perception of boundaries – particularly at the utterance level – tends to be highly salient and naturally accessible to native speakers, as shown by high inter-rater agreement in segmentation tasks (Amir et al., 2004; Raso & Mittmann, 2009; Moneglia et al., 2010; Mello et al., 2012), even in spontaneous speech, and does not require any functional interpretation of the segmented unit. While no single cue is either necessary or sufficient on its own, the combination of multiple prosodic features provides robust perceptual signals for boundary detection.

L-AcT proposes an almost perfect isomorphy between the prosodic pattern (the sequence of prosodic units that make up utterances) and the information pattern (the way in which information is encoded in speech) (Cresti & Moneglia 2010). This isomorphy is intended to hold cross-linguistically and has been empirically validated in several languages. The resulting information structure of an utterance is independent of the syntactic form of the locutive content.

Within an utterance, only one unit is perceived as autonomous and carries the illocution, and it is referred to as the Comment (COM), necessary and sufficient to

190

⁶ Following the IPO methodology for perceptual intonation analysis, integrated by L-AcT ('t Hart et al. 1990), prosodic units are defined as intonation profiles – combination of one or more perceptually relevant pitch movements, shaped by f0 contour, its alignment with syllables, and the maximum and minimum points of f0.

⁷ Marked with '//' in the transcriptions.

⁸ Marked with '/' in the transcriptions.

⁹ L-AcT was applied to the Italian LABLITA corpus (Cresti et al. 2018) and extensively tested in the annotation of Romance corpora, see C-ORAL-ROM (Cresti & Moneglia 2005), C-ORAL-BRASIL (Raso & Mello 2012), and Cor-DiAL (Nicolas Martinez 2012), Brazilian Portuguese (Panunzi & Mittmann 2014), Spanish (Nicolas Martinez & Lombán, 2018), and American English (Du Bois et al. 2000; Cavalcante & Ramos 2016).

form an utterance. Its prosodic contour can be described as a *root* unit, and varies widely along with its illocutionary value and the attitude with which it is conveyed (Mello & Raso 2011; Raso & Rocha 2015).

An utterance can be simple, consisting of only one information and prosodic unit (6), or complex composed of multiple units (7), where the COM is supported by other units to complete the utterance, each one with a recognizable prosodic contour (more or less fixed). Figures 1 and 2 show the prosodic contour and intonation pattern of the two examples.

(6) *FRA:
$$me$$
 lo $ricordo//^{COM}$ (ifamdl12_55)
1SG.DAT 3SG.ACC.M remember:1SG.PRS
'*FRA: I remember it// COM '

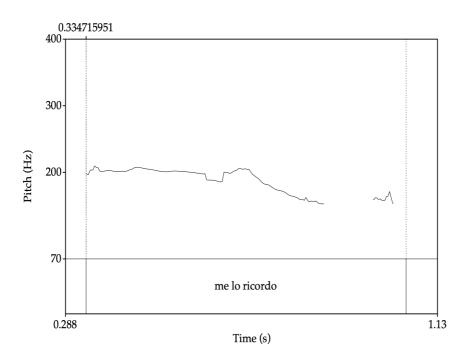


Figure 1: Prosodic contour of example (6) with transcription (female speaker).

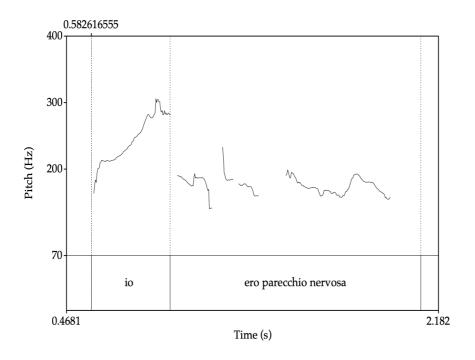


Figure 2: Prosodic contour of example (7) with transcription (female speaker).

The f0 contour of (6) is flat and continuous, falling at the end, with only one relevant pitch movement, whereas the contour in (7) is composed by more than one perceptually relevant movement. Specifically, Figure 2 illustrates an utterance comprising the necessary COM "ero parecchio nervosa" and a previous one that serves as the Topic "io", with a distinct rising pitch movement separated by a pitch reset from the subsequent unit.¹⁰

The COM unit may be preceded by a Topic unit (TOP). Following Moneglia & Raso (2014), we assume that the TOP provides the field of application for the illocutionary force of the Comment; it selects a domain of pragmatic relevance for the illocution. That is, utterances without a TOP necessarily refer to a contextually given domain (Hockett 1958; Cresti 2000).

The Topic unit is the main means of structuring information with respect to the Comment¹¹ (Cresti & Moneglia 2018 a, b). Regarding its distribution, it always precedes the COM and has a *prefix* prosodic contour ('t Hart et al. 1990).

¹⁰ Pitch modulation marks boundaries between adjacent units, while perceived duration and volume also aid speech segmentation.

¹¹ For a quantitative resume of the incidence of utterances with Topics in multilingual corpora, see Table 1 in Cresti & Moneglia (2018b: 36). In short: Italian, 15.35%; Brazilian Portuguese, 9%; Spanish, 13.9%; and American English, 10.1%.

Both *prefix* and *root* prosodic contours can consist of a preparation and a nucleus. The nucleus corresponds to the minimal prosodic contour required to perform the information unit; its contour can be a simple movement (rising/falling/holding), or it can involve several movements aligned to the syllables participating in the contour (Cresti & Moneglia 2023). As a result, it is possible to identify a prosodically prominent part in both the Topic and Comment, relevance of which is connected to their functional value (Saccone et al. 2023). Research carried out on Brazilian Portuguese, European Portuguese and Italian (Mittmann 2012; Rocha 2012; Cavalcante 2015; Firenzuoli & Signorini 2003) identifies different types of *prefix* units on the base of the pitch movement in the syllable(s) of the prosodic unit who carries the prosodic prominence. As fully described in Cavalcante (2015), "the process is based on the assumption that only those f0 variations that result from voluntary production by the speaker show perceptual – and hence informational – relevance ('t Hart et al. 1990; Firenzuoli 2003)". The Topic profiles were then classified in the three types sketched in Figure 3.

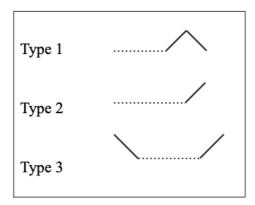


Figure 3: The 3 types of Topic prosodic forms (Cavalcante, 2015).

Summarizing Cavalcante (2015) and Firenzuoli and Signorini (2003), these types can be described as follows, based on empirical data from American English, Italian, Spanish, Portuguese (both European and Brazilian).¹²

- Type 1: rising-falling nucleus, aligned with the final stressed and any poststressed syllables, with lengthening of the nuclear portion.
- Type 2: rising nucleus, aligned with the final stressed and any post-stressed syllables, also showing syllable lengthening.

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¹² For a Kappa agreement test for TOP recognition, see Cavalcante et al. (2020).

- Type 3: two semi-nuclei (first and last syllables), possibly separated by a link; the first showing a falling and the second a (steeply) rising contour, both lengthened.

Apart from these types, some TOPs have been found exhibiting an overall flat f0 contour, considered a Type 3 subgroup (Cavalcante 2015), since they share characteristics with the first semi-nucleus, usually on a level that is higher than that of the final portion even if in a flatter form – hereinafter referred to as Flat.

Despite the distinction in f0 contour, studies carried out to date show no functional difference between the *prefix* prosodic forms, which are informally referred to as alloforms (Cavalcante 2020; Raso et al. 2017; Cavalcante et al. 2023). Our research questions call for a confirmation of this disunity.

2.2.2. Toward a Textual Description of the Discourse Functions of LDs

The discourse functions of LDs are described through the analysis of three parameters:

- i) The degree of activation of the left-dislocated constituents,
- ii) The relationship of the left-marked constituent with topic dynamism, and
- iii) The relationship between the LDs' Comment and the logical dimension of the text.

Point (i), which corresponds to the analysis of givenness, is a classic parameter in descriptions of LD functions (Chafe 1987, 1994), whereas topic dynamism and the logic dimension require further clarification. We considered left constituents to be given, inferable or new based on the left co-text only, and on a closed set of relations inspired to Baumann and Riester 2012 (for further details we refer the reader to Cimmino 2017). We now detail the trickier concepts of topic dynamism and logic dimension which require further clarification.

The term topic dynamism refers to the organization of the Topics in the text – specifically, to the evolution of the field of application for the illocutionary force of the utterances of the text (Cimmino & Panunzi 2017: 141). When LDs display a topic partition, they contribute to structuring the text by providing contextual reference for the utterance. By observing the stability or shift in this reference, one can assess whether and how an LD signals a sudden change in the contextual coordinates

established by the text.¹³ For instance, consider the following excerpt from a conversation between a goldsmith and a client, in which a third party asks whether the goldsmith can draw the requested design using a marker:

(8) *MAN: ma il pennarello/TOP non ce l' hai?COM (ifamcv28_57)
but the marker NEG there it have:2SG

'*MAN: the marker/TOP you don't have it?COM'

Here, the LD introduces a new referent into the discourse as a new Topic and, crucially, shifts the contextual coordinates for future utterances. From this point onward, the discourse centers around the marker and its role in the goldsmith's work.

With the term *logic dimension*, we refer to the logic relations present within the text and their coherent organization. This includes logic relations between events (e.g., "If it rains, we stay home"), and between communicative units at both textual and illocutionary levels (Ferrari 2014) – that is, logic relations concerning the organization of ideas (e.g., "I read, thus I think") and between speech acts (e.g., "A: Do you like babies? B: Not at all"). In our analysis of LDs, the relevant logic relations are those between the Comment units of LDs and those of adjacent utterances, therefore we see such relations, including contrast, as discourse notions, which interacts with information-structure notions and not as information structurally related tout court (Brunetti 2024). Indeed, as noted in the literature (Huddleston & Pullum 2002 for English; Cimmino & Panunzi 2017 for Italian; Garassino & Jacob 2018 for Italian, French, and Spanish), LDs can highlight contrastive relations in the focal part of the structure. For example, the following LD occurrence highlights a contrast relation on the polarity of the verb to indicate that the speaker can indeed find a solution to a difficult problem:

¹³ Since we conceive Topic as a pragmatic concept, we are not dealing with thematic progression, that is the unfolding of relevant referents in the text (Daneš 1974; Ferrari & De Cesare 2009). For further clarification see Cimmino (2023: 348).

¹⁴ We here refer to the classification in Prandi (2006) and Ferrari (2014), but the identification of discourse relations has a long tradition, see at least Mann and Thompson (1988) and Asher and Lascarides (2003).

(9) A: no, niente, eh, dobbiamo trovare una soluzione.

```
B: ah va be', la soluzione glie = la troviamo
ah well ART.DEF solution[F] for.him = 3SG.OBJ.F find:1PL
'A: nah, nothing, uh, we gotta find a solution.
B: well, the solution we'll find it for him'
(LIP corpus, in Garassino & Jacob 2018: 228)
```

Such occurrences alter the logic dimension of the text without engaging with its topical dimension.

By analyzing the parameters of givenness, topic dynamism, and logic relations independently and in interaction, it is possible to identify four main discourse functions. In previous analyses of Italian and English LDs in spontaneous spoken speech (Cimmino & Panunzi 2017; Cimmino 2023, 2024), we found that the givenness of left-dislocated constituents interacts primarily with the topic dynamism of the text. This interaction gives rise to two widely recognized discourse functions:

- (I) The topicalization of new or non-active referents.
- (II) The topicalization of old referents.

These functions are well-documented in the literature and represent classic uses of LDs in natural discourse (e.g., Benincà et al. 1998, for Italian; Lambrecht 1994, for English; Sedano 2012, for Spanish).

Less investigated is the possibility for LDs to interact with the logic dimension of texts. As seen above, LDs can highlight contrastive relations on the focal part of the structure, and in particular on polarity focus. Also, LDs can highlight corrective contrastive relations on the entire predicate; in the fictitious example below, speaker A asserts that s/he lies to Paolo to protect him, while speaker B asserts the opposite producing a corrective contrastive relations uttered via a LD:

(10) A: Spesso ho mentito a Paolo per proteggerlo.

```
B: A Paolo, gli dico sempre quello che penso!
to Paolo to.him say:1sg always that REL think:1sg
```

'A: I've often lied to Paolo to protect him.

B: Paolo, I always tell him what I think!'

Although the nature and scope of the contrastive relation may vary (see Cimmino 2024: 50 for a detailed discussion), this function can be generally described as:

(III) The highlighting of a contrastive relation in the discourse.

In performing this function, LDs do not explicitly encode the logical relationship but rather organize the text in a way that accentuates it.

Finally, prior analyses have identified instances where LDs influence neither topic dynamism nor the logic dimension. These LDs contribute to dialogic management by serving to:

(IV) Highlight the speaker's personal stance.

In Italian, this is often achieved through fixed expressions such as "a me mi" ('as for me I'), as seen in the example below:

```
(11) *MAR: [201] qui posso girare//
*MAX: [202] così è pericoloso//
*MAR: [203] a me 'un mi pare-a pericoloso//
to me NEG to.me seem-PST.IPFV.3sG dangerous
[204] tu se' te tu sei agitato/ come un coso// [205] io son tranquillissima//
(ifamdl19_201-205)
'*MAR: [201] here I can turn//
*MAX: [202] this is dangerous//
*MAR: [203] as for me I don't think it is dangerous//<sup>COM</sup> [204] you are the one who is nervous/ like a thing// [205] I am very calm//'
```

This function was first observed in Italian by Duranti & Ochs (1979), who described it as a "floor-seeking" interactional move by the speaker. In a slightly different way, more in line with our observation here, Hidalgo Downing (2006) describes this in Spanish as the introduction of a new perspective or voice into the discourse. As will be shown in the analysis section, the expression of personal stance via LDs can occur when the speaker already holds the turn as well.

In the dataset selected for this study, we investigated the presence of the four discourse functions outlined above, as well as additional potential discourse roles played by LDs. In the following, we will thus be concerned not only with Italian and English, as in previous studies, but also with Spanish.

3. Italian, Spanish, and English LDs discourse functions in spontaneous speech

The description of LDs discourse functions occurring in our dataset follows the approach outlined in §2, therefore it consists of two separate steps, which have been the object of two parallel and separate investigations. First, we performed a prosodic and informative analysis to assess the presence of the information partition and the specific intonation features of each occurrence (§3.1.). Second, we conducted a functional analysis to examine the discourse role of LDs (§3.2). The results and details of the analyses are reported in what follows.

3.1. (Mis)matches between LDs' syntax, and prosodic-information features

The occurrences of LDs have been classified according to their prosodic-information structure, to understand whether the LD constituents were prosodically separated from the following material or not.

We first revised the L-AcT information tags previously present in the mini-corpora, which were the result of an inter-annotator agreement process. A new blind annotation was then carried out, independently of the existing tags. In cases of discrepancy between the two annotations, the relevant instances were re-examined in detail through acoustic analysis of the prosodic parameters previously described. Subsequently, we used the Praat software (Boersma & Weenink 2024) to observe the prosodic profile, obtain acoustic measurements of duration, f0, and intensity, and draw the intonation contours.

Examining the three mini-corpora, no direct correspondence emerged between syntactic form and information structure in LD occurrences. Specifically, LD syntactic partition does not consistently correspond to a specific information partition, nor does it necessarily entail a prosodic boundary between the dislocated element and the coreferential pronoun (§3.1.1). Therefore, the presence or absence of an information partition is influenced by factors beyond syntactic form or the syntactic weight of the

locutive content (§3.1.2). Moreover, no consistent acoustic-prosodic features systematically mark LDs (§3.1.3).

3.1.1 Information structure of LDs

Our classification distinguishes LDs where the dislocated constituent occurs in the same unit as its related pronoun, with no detectable prosodic boundary between them (*non-partitioned*), from LDs where the two occupy specific units, with the dislocated constituent followed by a boundary tone (*partitioned*). The results are shown in Table 3.

Mini- corpus	LD non- partitioned	LD partitioned	Total
IT	16 (29%)	40 (71%)	56
SP	45 (62%)	28 (38%)	73
AE	-	8 (100%)	8

Table 3: Information structure of LD occurrences.

We have observed both information structures in IT and SP. The IT mini-corpus shows a clear prevalence of the information partition (29% non-p. vs. 71% p.), while SP shows the opposite trend, with a less marked difference (62% non-p. vs. 38% p.). The AE mini-corpus distinctively presents LDs solely with an information partition.

Accordingly, we now examine the specific information traits associated with partitioned and non-partitioned LDs.

In the partitioned cases, we distinguish LD occurrences based on the information tag of their prosodic units, following L-AcT. The typical structure observed is the Topic/Comment pattern, in which each unit carries its own nuclear prosodic prominence: the dislocated constituent in the Topic, and the pronoun in the Comment, as illustrated in (12), (13), and (14).

```
(13) *LUC: la nube/<sup>TOP</sup> la he hecho yo//<sup>COM</sup> (efamcv02c_38) the cloud[F] 3sg.OBJ.F have:1sg made I

'*LUC: the cloud/<sup>TOP</sup> I made it//<sup>COM</sup>'

(14) *COR: it was like/ this one guy/<sup>TOP</sup> he gets this master//<sup>COM</sup> (afammn05 20)
```

An examination of each mini-corpus individually allows us to highlight specific features of our dataset.

In SP, when the partition occurs, it always corresponds to the Topic/Comment structure. In IT, differently, the dataset also includes two utterances presenting the dislocated constituent in the Appendix of Topic (APT). The Appendix of Topic integrates the text from the previous TOP; in (15) it is realized as a *suffix* falling prosodic unit and does not carry functional prosodic prominence. It serves a different information function than the Topic in the utterance and is functionally hierarchically subordinated to the previous unit.

```
(15) *ALD: è per questo che io/^{TOP} il rappresentante/^{APT} lo/be.PRS.3SG for this that I the representative 3SG.OBJ.M rifarei cento volte/^{COM} (ifammn14_117) do_again:COND.1SG a hundred times '*ALD: that's why I/^{TOP} the salesman/^{APT} would do it again/ a hundred times/^{COM}'
```

The AE mini-corpus presents 6 Topic/Comment structures, one utterance in which the dislocated constituent is in an Appendix of Topic (16) and one in a Locutive Introducer unit (INT) (17). Both APT and INT are textual units, according to L-AcT, and always located before the Comment. The Locutive Introducer serves, specifically, to introduce reported speech or spoken thoughts, indicating that what follows refers to a different hic et nunc than the context (Moneglia & Raso 2014) and does not produce a functional prosodic prominence. In other words, it lacks both acoustic and perceptual salience. The overall prosodic form of the movement is described as brief and falling, and is characterized by a marked increase in speech rate.¹⁵

200

¹⁵ In L-AcT studies, speech rate is measured using language-specific automatic normalization systems based on z-scores (Barbosa 2019).

- (16) *ALC: well/ when you said that though/ my [/] my new boss/APT she came [/] she told M ike yesterday/ she's/ I wanna be there at seven o'clock to go/ to community meeting//COM (afamdl03_1)¹⁶
- (17) *ALA: so **mom**/^{INT} **she** just goes/^{INT} I feel like you've got a whole other world outside of us//^{COM} (afammn03_92)

In the non-partitioned cases, the entire LD structure usually occupies a Comment unit as in (18) and (19):

- (18) *NIC: allora il rosso lo scarto//^{COM} (ifamcv09_95) then the red 3sg.obj.m discard:1sg '*NIC: so the red I discard it//^{COM}'
- (19) *VIG: **eso** sí **lo** puede hacer//^{COM} (epubdl07b_87) that yes 3sg.obj.m can:3sg do:INF '*VIG: **this** you can do **it**//^{COM}'

Non partitioned LDs can also occur in TSs with more than one illocutionary unit, as in the structures defined by L-AcT as Multiple Comments (20) and Bound Comments (21). The former (tag: CMM) are typically dyadic structures in which multiple illocutions are held together by a single terminated intonation pattern. They reflect codified discourse models, such as list, comparison, alternative, and functional recall (Saccone & Panunzi 2020). The latter (tag: COB) are Comment units with homogeneous illocution, linked in prosodically continuous and functionally cohesive chains, typical of monologic discourse (Panunzi & Scarano 2009; Saccone 2022).

(20) *OLG: la &direc [/] pero la dirección no la tenemos/CMM

the dir [/] but the address NEG 3SG.OBJ.F have:1PL

solo tenemos el nombre y el teléfono//CMM (epubdl07a_139)17

'*OLG: the addre [/] but the address we don't have it/CMM we only have the name and the phone number//CMM'

¹⁶ "[/]"marks a tone unit boundary following a disfluency phenomenon, with or without words repetitions.

^{17 &}quot;&" marks the beginning of interrupted words or vocalization/hesitation phenomena.

(21) *CLA: loro il confine sudanese lo vogliono/ tranquillo/^{COB} they the border Sudanese 3sg.OBJ.M want:3pl/ calm e questi gli creano una turbativa//^{COM} (ifammn03_13)

'*CLA: the Sudanese border they want it/ quiet/^{COB} and these create a disturbance//^{COM},

In (20), the TS is structured in two CMM-illocutionary units "pero la dirección no la tenenos" and "solo tenemos el nombre y el teléfono", marked by prosody to form a comparison intonation pattern. In (21), the chain of two COBs ("loro il confine sudanese lo vogliono tranquillo", and "e questi gli creano una turbativa")¹⁸ builds a segment of a travel story, incrementally adding new information. The COBs are thus constructed as a work in progress shaped by the speaker in the unfolding of discourse.

The lack of a boundary isolating the dislocated constituent to the left of more than one Comment unit signals the scope of the constituent "la dirección", limiting its range to a single illocutionary unit "pero la dirección no la tenenos".

The opposite occurs when the boundary is present, as in (22), where the scope of the constituent "i fiori" extends over both CMM illocutionary units ("li hai aggiunti ora" and o "c'erano anche l'altra volta":

fiori/TOP ora/CMM o (22) *CLA: *i* li hai aggiunti ART.M.PL flower:PL 3PL.OBJ.M.PL have:2SG add:PTCP.M.PL now or volta?^{CMM} (ifamdl15_202) c'anche l' erano altra there be:IPFV:3PL also the other "*CLA: **flowers**/TOP did you add **them** now/CMM or were they there last time too?CMM'

Therefore, the examples suggest that the partitioning of LD structures in two distinct units is not explained by the cognitive load of the information structure, since both articulations (partitioned and non-partitioned) can also be found in cases where the illocutionary structure is complex and composed by more than one root unit, as in Multiple Comments and Bound Comments. Indeed, where more than one illocution is expressed within the same TS, a prosodic prominence of the dislocated constituent is possible if its scope extends beyond the first illocution of the TS.

202

¹⁸ The final Bound Comment is consistently tagged as COM instead of COB.

To summarize, partitioned LDs exhibit varied information structures, indicating that the information features of the dislocated constituent may – but do not necessarily – align with those of Topics. However, it is important to note that when the LD is partitioned, the dislocated constituent is placed in a dedicated tone unit with its own information function. That is to say that, when present, the prosodic boundary separating the dislocated constituent from the co-referential pronoun does not merely scan the locutive content of the unit for physiological reasons – such as breathing – or disfluency phenomena – such as syllables or words retracing.¹⁹

3.1.2 Syntactic Weight of LDs

Notably, the partition of the analyzed items – the dislocated constituent and the pronoun – into distinct information units does not correlate with the syntactic weight of the locutive content,²⁰ cross-linguistically.

In Italian, the majority of dislocated constituents in our dataset consist of simple nominal syntagms (NSs), with 44 out of 56 occurrences falling into this category. These NSs are found in both partitioned and non-partitioned information structures, with 13 occurrences of dislocated NSs without partition and 31 occurrences with partition. Additionally, a similar trend is observed for nominal syntagms that include an adjective, where 3 instances occur without partition and 4 occur with partition.

In Spanish, a similar pattern emerges, with simple NSs comprising the majority of dislocated constituents (61 out of 73 occurrences). These NSs also appear in both partitioned and non-partitioned information structures, with 42 occurrences without partition and 19 with partition. As in Italian, nominal syntagms containing an adjective show a similar distribution, with 4 occurrences without partition and 2 with partition.

In American English, as previously mentioned, all LDs occur in dedicated tone units. Among these, the majority involve NSs with an adjective (5 out of 8 occurrences), followed by simple NSs (2 out of 8).

¹⁹ In cases where tone units lack an independent information function and prosodic prominence, L-AcT identifies a Scanning unit (SCA). When the locutive content of a unit is abandoned – interrupted, substituted, retraced, self-corrected, or otherwise – the corresponding L-AcT tag is Empty (EMP).

²⁰ Cf. Crocco & Savy (2007); Alfano et al. (2021).

The evidence presented above indicates that, in the cases involving simple NSs or NSs with adjectival modification there is no correlation between syntactic weight and the presence or absence of prosodic partition.

The only context in which an association emerges is with structurally more complex – thus syntactically heavier – constituents, which, however, represent a minimal portion of the dataset. In fact, across all the three languages, only a small subset of LDs exhibits structures such as a nominal syntagm combined with a prepositional phrase or a relative clause. These more complex structures are always realized in separate information units, and this pattern is consistent across all three languages. For example, in Italian, there are 5 instances of such structures out of 56 total LDs; in Spanish, 6 out of 73; and in AE, only 1 out of 8.

3.1.3 Prosodic features of LDs in Topic/Comment pattern

We then conducted a prosodic analysis of LDs with partition, where a boundary tone separates the dislocated constituent from the pronoun, with the dislocated constituent functioning as the Topic. The aim of this analysis is to determine whether any acoustic-prosodic feature systematically marks left dislocation (LD).

For these occurrences, we analyzed the acoustic correlates of both the unit and boundary, along with the nuclear prosodic configuration of the LD constituent.

Regarding prosodic features at the boundary, we observed vowel lengthening before the boundary and either a pause or an f0 shift (upward or downward) following it. Lengthening occurred in 4 cases (3 in SP and 1 in IT) across different prosodic configurations. 6 Topics were followed by a pause >150 ms,²¹ with pauses varying in duration (min: 165 ms; max: 1778 ms). An f0 shift after the boundary was observed in 11 Topics (4 in AE; 2 in SP; 5 in IT), with 6 shifts upward and 5 downward.²² The three observed features did not co-occur. Such prosodic variability suggests a high degree of heterogeneity in the sample, and points to the lack of a systematic correlation between these features and the phenomenon under investigation.

204

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We observed pauses, consistent with their documented role in LD structures across languages (e.g., Delais-Roussarie et al. 2004 for French; Feldhausen 2016 for Spanish). A 150 ms threshold was adopted since it aligns with the average duration of Italian stop consonants (Giannini 2008; Dovetto & Gemelli 2013), captures short planning-related pauses reported from 100 ms (Matzinger et al. 2020), and remains below the 300 ms perceptual threshold for reliable detection (Duez 1985; Wang et al. 2012).

The f0 shift indicates differences in pitch range between two adjacent intonation units. It was calculated as the difference between the means of the five f0 points before and after the boundary.

As for the prosodic type of Topics, they were classified based on their contour, following the features discussed in §2.2.1.

It is first necessary to consider that the distribution of Topic prosodic types varies cross-linguistically. Following corpus-based analysis in Firenzuoli & Signorini (2003), Type 1 results the most occurring in Italian spontaneous speech²³ (55.2%), while Type 3 is the most common in American English²⁴ (72%) (Cavalcante 2020). To date, no such analysis has been conducted on Spanish, which prevents a direct comparison with the other languages considered.

With regard to our dataset, we identified three types of Topic contours, as shown in Table 4: Type 1, Type 2, and Flat Type.

	Type 1	Type 2	Flat	Total
IT	19	11	3	33
SP	2	19	3	24
AE	3	0	3	6

Table 4: Topic prosodic types of LDs.

The distribution of prosodic types across the three languages is clearly uneven. Italian shows a predominance of Type 1 (19/33), which aligns with patterns already observed in the language's general prosodic tendencies (23) (see Figure 4).

'*CLA: flowers/ TOP did you add them now/ CMM or were they there last time too? CMM '

²³ The Italian reference corpus corresponds to the complete version of the mini-corpus employed here.

²⁴ The reference corpus for American English is the corpus currently being analyzed in this study.

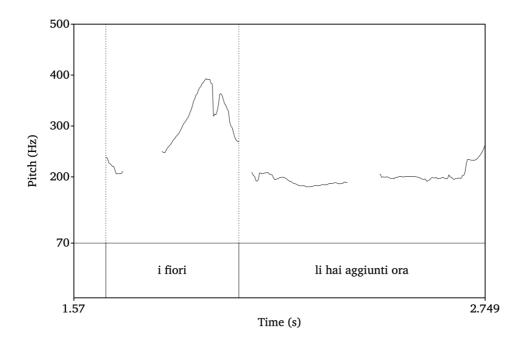


Figure 4: Prosodic contour of (23). Type 1 Topic: i fiori (female speaker).

In contrast, Spanish shows a clear preference for Type 2 (19/24), suggesting a different intonation strategy in marking Topics (24) (see Figure 5).

"*LOL: **Bretón**/TOP they've &sen [/] sentenced **him** to forty//COM'

American English displays no clear preference, with an equal distribution between Type 1 and Flat realizations (3 each), and no occurrences of Type 2 (see (25) for an example of Flat Topic; Figure 6).

(25) *RAN: **Horizon**/TOP you can't do nothing with **him**/CMM so just have him hold there//CMM (apubdl01_61)

These patterns further support the idea that prosodic realization of LD Topics is language-dependent and shaped by language-specific prosodic norms.

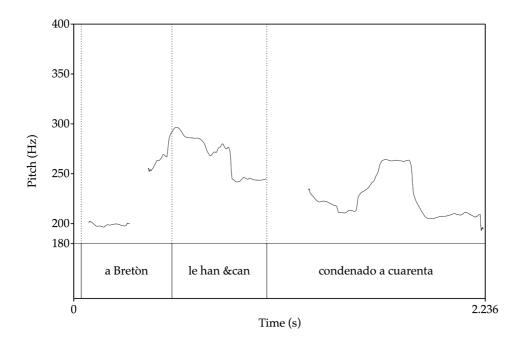


Figure 5: Prosodic contour of (24). Type 2 Topic: a Bretón (female speaker).

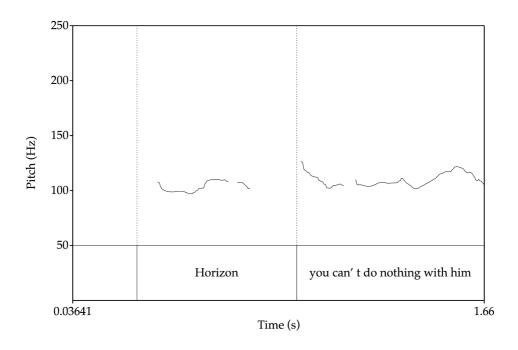


Figure 6: Prosodic contour of (25). Flat type Topic: Horizon (male speaker).

As for the acoustic features of prominence movements, both Type 1 (rising + falling) and Type 2 (rising) in our dataset are characterized by significant intonation excursions. These movements are perceptible in the speech flow, with a pitch range > 3 semitones (st) – the threshold corresponding to the Just Noticeable Difference (JND) for f0 variation detectable by listeners and relevant for communicative events,

as identified by 't Hart (1981) in his analysis of Dutch spontaneous speech.²⁵ In the case of Type 1, both the rising and falling movements exceed this perceptual threshold. The third detected pattern, the Flat type, lacks perceptible f0 movements, remaining below the 3 st JND.

Analyzing the f0 movements in correlation with stress position, we observed that Type 1 consistently places stress at the highest point of the rising movement, regardless of the language. In contrast, two different configurations were found for Type 2 and Flat.

Type 2 appears in the SP and IT datasets, typically with the stressed syllable positioned at the starting (lower) point of the rising configuration. In instances where this is not the case (5 occurrences in SP and 1 in IT), the stress falls on the end of the tone unit, the highest point of the rising, and always corresponds to oxytone words.

The Flat type is present in all three datasets, exhibiting a high f0 level in SP and IT, while in AE, it occurs with a lower f0 level, sometimes close to the baseline of the utterance. As a result, the IT and SP Flat Topics are more prosodically prominent in the speech flow than those in AE.

3.2. (Mis)matches between prosodic-information traits and discourse functions

The occurrences of LD retrieved in our mini-corpora were classified according to the four discourse functions outlined in our approach:

- (I) Topicalization of new or non-active referents,
- (II) Topicalization of old referents,
- (III) Highlighting of a contrastive relation within the discourse, and
- (IV) Highlighting of the speaker's personal stance.

We examined whether all instances of LDs matched at least one of the defined functions and assessed the extent of intra- and cross-linguistic variation. Furthermore,

208

²⁵ Specific JND values for Italian are not well-established, and the literature shows no consensus, with studies referencing JND both in Hz and in st. In addition to the reference chosen here, other studies report JNDs of 1 st (Lehiste 1970; Hermes & van Gestel 1991; Barbosa 2019). We use st to normalize variations due to gender or contextual factors (Sorianello 2006; Simpson 2009; Stanford 2016). More specifically, regarding AE speech, studies show that when the data are converted into semitones, the cross-gender differences disappear esntirely (Pépiot 2014).

we investigated potential interactions between information traits and the prosodic contour of the left-dislocated constituents, on the one hand, and the discourse functions of LDs, on the other.

In the three mini-corpora, we observed considerable cross-linguistic variation in both the frequency and nature of discourse functions performed by LDs. While American English LDs fulfill only functions (I) and (II), Italian and Spanish LDs – though asymmetrically – also perform additional functions. The data in §3.2.1 show the intra- and cross-linguistic variation in LDs discourse functions, while §3.2.2 shows that the discourse functions performed do not match LDs prosodic-information patterns. Each function described can be fulfilled by LDs independently of the extraclausality of the left-dislocated constituent: all three languages display similar functions with partitioned and non-partitioned LDs.

3.2.1. Intra- and cross-linguistic variation in LDs discourse functions

Table 5 presents the classification of discourse functions by language (rows) and function type (columns), including the absolute number of occurrences for each function and the percentage relative to the total LDs in each language.

Language	Intro referents	Resume referents	Highlight contrast	Highlight stance	Other	Total
IT	12 (21.5%)	7 (12.5%)	14 (25%)	5 (8.9%)	18 (32.1%)	56 (100%)
SP	15 (20.5%)	0	17 (23.3%)	22 (30.1%)	19 (26.1%)	73 (100%)
AE	6 (75%)	2 (25%)	0	0	0	8 (100%)

Table 5: Discourse Functions of LD Occurrences.

American English LDs display less functional variation compared to Italian and Spanish. This cross-linguistic variation is both quantitative and qualitative. In our dataset, American English LDs are almost exclusively used for function (I), introducing a new referent in the text as a Topic. In the following AE monologue, the speaker

comments on the impossibility of spending thousands of dollars on art, while he recalls the first painting he bought in Mexico ("the first painting I ever bought/ my father-in-law bought it from Geri [/] Geri Rae//", TS [87]). The introduction of this new referent ("the first painting") disrupts the topic chain previously established in the text, which had been centered on a different place ("while I was down there", i.e., in Mexico City, TS [84]) and another concept ("to spend a thousand dollars [...] for a painting", TS [86]). After introducing this new referent, the discourse shifts to focus on it for two subsequent utterances.

(26) *ALN:[83] well/ we bought a painting/ &he/ of a little Mexican woman/ still got it/ with a watermelon on her head/ like it a lot/ think I paid/ thirty dollars for it/ well that was about my price range// [84] &he/ while I was down there/TOP we/ may have bought a couple of other &i [/] inexpensive paintings/COB maybe collectively we bought [/] maybe spent a hundred and fifty dollars// [85] &he/ hell I was not an art [/] we weren't art collectors// [86] and/ &he/ to spend a thousand dollars/ to me/ for a painting/ was unthinkable// [87] &he/ the first painting I ever bought/TOP my father in law bought it from Geri [/] Geri Rae//COM [88] it was one of Geri's original early early paintings/ which I thoroughly enjoy// (afammn02 83-90)

In our American English data, LDs performing function (I) consistently signal that the left-dislocated constituents are new, relevant, and persistent in the subsequent topic chain. In Italian and Spanish, LDs performing function (I) also involve already given, but non-active referents. The following excerpt from a Spanish dialogue illustrates an LD "la grasa/ la vamos echando según va saliendo/ así?" (TS [106]) that introduces a Topic represented by a referent previously mentioned "grasa" (TS [100]), but which had been competing with other referents (see Givón 1983). "La grasa" has now become the most relevant referent and will remain active in the following utterances.

```
(27) *DOR: [100] sí/ sí sí/ tenemos grasa// [101] he echado eso/ pero también viene bien/ porque si no se [/] se agarra a la sartén// [102] te digo + [103] vamos a ver// [104] una plato/ para irlo echando//
```

```
*CAR: [105] ya//
[106] y ahora/ la grasa/^{TOP} la vamos echando

ART.SG.F fat 3SG.OBJ.F go:PRS.1PL add:GER
```

again/COB and again/COM'

```
saliendo/COM
                                                así?
             según
                     va
                     go.3sg come.out:ger
                                                thus
             as
*DOR: [107] no//
*CAR: [108] no//
                        grasa/TOP la
*DOR: [109] la
                                             dejamos
                                                             aquí/COB
             ART.SG.F
                        fat
                                  3sg.obj.f leave:prs.1pl
                                                             here
                                        una/^{COB} y
                                                     otra/<sup>COB</sup>
                             saliendo
                                                                γ
                                                                     otra//COM
       que vaya
       that go:SBJV.PRS.3SG come:GER one:F
                                               and another:F and another.F
       (efamdl02 100-109)
'*DOR: [100] yes/ yes yes/ we have fat// [101] I added that/ but it's also good/
       because if not[/] it sticks to the pan// [102] I'll tell you + [103] let's
       see// [104] a plate/ to add it//
*CAR: [105] already// [106] and now/ the fat/ TOP are we adding it as it comes
       out/COM like this?
*DOR:[107] no//
*CAR: [108] no//
*DOR: [109] the fat/TOP we leave it here/COB so that it comes out again/COB and
```

The lack of functional variation in American English LDs suggests their high syntactic and pragmatic markedness. ²⁶ In contrast, the variability in the activation status of the left-dislocated constituents in Italian and Spanish LDs performing function (I) suggests that LDs are flexible cohesive devices in discourse. In summary, the differences among the three languages are striking both cross-linguistically and intra-linguistically.

The classification shown in Table 5 reveals that asymmetries can also be observed between Italian and Spanish. Spanish LDs may be exploited to perform function (III) – that is, to highlight a contrastive relation. In example (27) above, the second LD occurring in the excerpt ("la grasa / la dejamos aquí/ que vaya saliendo una/ y otra/ y otra") resumes the referent "grasa" to provide a negative response to the preceding question, thus denying speaker CAR's expectations. In this case, therefore, the resumption of the referent is exploited at a logic level, performing

²⁶ Here we use the theoretically obsolete (Haspelmath 2006), but operationally clear notion of markedness. We refer to syntactic markedness with respect to the word order of the structures, diverging from the most frequent SVO order in Italian and English. Pragmatic markedness, instead, refers to the fact that LDs perform their discourse functions only in specific given contexts.

function (III). Indeed, LDs performing function (III) signal the textual relevance of the logic relation encoded in the Comment of the LD. This aligns perfectly with observations of Italian LDs in our mini-corpus, which can perform the same function in similar contexts.²⁷

However, in our dataset, Italian LDs also perform function (II), which does not involve the exploitation of the LD on a logic level and is absent in our Spanish data. In the following Italian example, speaker ZIA resumes the referent "Cinturini", with the LD in TS [4], after a digression (TS [2]) in which she introduced the competing referent "il libretto del Lavoro".

- (28) *ZIA: [1] poi so' entrata da Cinturini appena quattordic'anni// [2] perché a quei tempi/ il libretto del lavoro/ te lo facevano a quattordic'anni//
 - *ALE: [3] mh mh//
 - *ZIA: [4] da Cinturini/TOP c' ho lavorato du' anni//COM
 at Cinturini there have:1sG work:PTCP two year:PL

 [5] poi a me da Cinturini non me piaceva/ facevo sempre li dispetti/ allora
 m'hanno licenziato// (ifammn05_1-4)
 - '*ZIA: [1] then I joined Cinturini when I was only fourteen years old// [2] because in those days/ the employment card/ they made it for you at fourteen years old//
 - *ALE: [3] mh mh//
 - *ZIA: [4] **at Cinturini**/TOP I worked **there** for two years//COM [5] then as for me I didn't like Cinturini/ I was always teasing/ then they fired me//

In turn, Spanish LDs are used more frequently than Italian LDs for the dialogic management of discourse – specifically, to highlight a speaker's personal stance (function IV). In the following excerpt, CAR and DOR are discussing the quality of garlic soup. CAR asks if DOR has ever made it at home. DOR replies she has not, but recalls preparing and eating it on a farm in Seville; she concludes by expressing her personal stance on the experience. In this case, the LD serves to emphasize the speaker's personal stance within the context of a complex utterance (with Multiple Comments), which reports both actions and a metatextual reflection.

212

²⁷ For a detailed discussion of LDs contrastive function in Italian both in spoken and written texts, the reader is referred to Cimmino (2024).

```
(29) *DOR: y allí las hice yo/<sup>CMM</sup> y las comí

3PL.OBJ.F make:PST.1SG I and 3PL.OBJ.F eat:PST.1SG

yo/<sup>CMM</sup> a mí/<sup>TOP_p</sup> me gustaron//<sup>PAR28</sup>

I to me to.me like:PST.3PL (efamdl02_54)

'*DOR: and I made them there/<sup>CMM</sup> I ate them/<sup>CMM</sup> me/<sup>TOP_p</sup> I liked them//<sup>PAR</sup>
```

In Italian LD occurrences, it is possible to find similar examples – namely, LDs performing function (IV) introduced by the fixed formula "a me mi", functionally equivalent to "a mí me" as seen in the example above. However, they occur less frequently and differ qualitatively, as in Italian they highlight a personal stance only in dialogic contexts, and typically in (strong or mild) opposition to other speakers.

Once again, our closer look at the interaction between LDs and their context of occurrence revealed both quantitative and qualitative differences among the languages under scrutiny. We observed that both Italian and Spanish LDs go far beyond the topicalizing function described in the literature (e.g., Lambrecht 1994), since they do not only fulfill referent management functions (I and II, in our taxonomy), but also functions linked to the logic or interpersonal dimension of the text (III and IV). This demonstrates that both languages are characterized by a high pragmatic and syntactic flexibility in the use of LDs (unlike English). Notwithstanding this similarity, the exploitation of LDs still remains context-based (and not language-based), since LDs potential is exploited following the speaker's expressive needs, which change based on the text and the interaction with the interlocutors. Another piece of evidence retrievable from Table 5 supports the unpredictability of LD usage in context. In our dataset, approximately 30% of both Italian and Spanish LD functions cannot be accounted for by our functional classification, despite the variety of textual dimensions considered (topic, logic, or dialogic – see §2.2.2 for details on this aspect).

Indeed, some occurrences represent a blend of more than one function, as in the following Italian LD, which operates on both a logical and dialogic level. Speaker ART is describing his work as a leatherworker when DAN interrupts to ask for confirmation. She hypothesizes that the leatherworker does not produce the lining for the bags himself and must purchase it elsewhere ("gliela forniscono"). The syntactic and informational prominence created by the LD serves both to introduce a personal

213

²⁸ PAR marks parenthetical units, which insert supplementary information into the utterance. The subscript "_p" in TOP_p signals that the tagged unit (TOP) is embedded within a prosodic sequence of unit functioning as a parenthetical.

stance – disruptive of the ongoing discourse – and to highlight a shift in the coherence relations of the text (which we call here logic, cfr. §2.2.2): DAN interrupts the descriptive sequence of ART with a request for confirmation. The cohesive anchor for this complex operation is the repetition of the active referent "la fodera", while the COM "gliela forniscono" inquires about the polarity of the verb (it could be paraphrased by: *do you purchase the lining or not?*).

```
(30) *ART: [136] naturalmente c'è una fodera// [137] questo è chiaro// [138] una fodera//

*DAN: [139] la fodera/TOP glie = la forniscono//COM

ART.SG.F lining to.him/her = 3SG.OBJ.F provide:PRS.3PL

*ART: [140] sì sì/le fodere/ sono cose// [141] una fodera// [142] si foderano// (ifamdl04_136-142)

'*ART: [136] of course there's a lining// [137] that's obvious// [138] a lining.

*DAN: [139] the lining/TOP they provide it//COM

*ART: [140] yeah yeah/ linings/ are stuff [141] a lining/ [142] they get lined//
```

Other occurrences seem to have no impact on the ongoing discourse, simply highlighting the speaker's expressive needs. For example, in the following Spanish LD (TS [161]), the textual prominence acquired through the topicality of the left-dislocated constituent is not exploited in any of the topic, logic, or dialogic dimensions, but rather serves to expressively emphasize the speaker's deep knowledge of the norms. In fact, the LD comments on the previous utterance constituting a digression from the topic progression and logic architecture of the text.

```
(31) *SIN: [158] yo entonces era opositor//
     *CAR: [159] mh//
     *SIN: [160] y por lo tanto/ me sabía muy bien esos decretos// [161] porque
                     normas/TOP
            las
                                  me
                                           las
                                                     tenía
                                                                     que
                                                                           saber
            ART.PL.F rule:PL
                                  to.me 3PL.OBJ.F have.to:IPFV.3SG COMP know:INF
            muy bien//<sup>COM</sup> (epubmn03_158-161)
            very well
     "*SIN: [158] back then I did the civil service//
     *CAR: [159] mh//
```

*SIN: [160] so/ I knew those decrees really well// [161] because **the rules**/ TOP I really had to know **them**// COM',

The intra- and cross-linguistic variability observed in our data, along with the gaps in our description, supports the idea of the contextual variability of LDs, disentangling them from the traditionally assumed topicalizing function. In what follows, we demonstrate that LD occurrences are not always linked to the concept of Topic either.

3.2.2 Information partition, Topic prosodic types and discourse functions of LDs

As shown in Table 3 (§3.1.1), American English LDs are always characterized by a partitioned information profile; nonetheless, in our dataset, they can perform two different functions. Italian and Spanish LDs can exhibit either a partitioned or non-partitioned information structure and perform four different functions, irrespective of their form. For example, in both Italian and Spanish, function (IV) is introduced by the fixed expressions "a me mi"/ "a mí me". Despite having the same syntactic structure and fulfilling the same discourse function, these fixed expressions can be delivered in either a partitioned or non-partitioned manner, as shown in excerpts (32) to (35).

- (32) *VAL: $a me/^{TOP} mi$ faceva schifo camminare &ne [/] to me to.me make:IPFV.3sG disgust walk:INF in nelle camere degli alberghi senza [/] cioè/ in:ART.F.PL room:PL of:ART.M.PL hotel:PL without that.is scalza//COM (ifammn08 118) barefoot:F.SG
 - "*VAL: **as for me**/TOP **I** hated walking &aro [/] around hotel rooms without [/]I mean/ barefoot//COM,
- (33) *LAU: cioè/ a me molto/ cioè/ costrui' la mi interessa that.is to me to.me interest:PRS.3SG much that.is build.INF ART F/CMM non mi tre interessa affatto/ essere marxista interest:PRS.3SG at.all three F be:INF marxist not to.me rivoluzionaria//^{CMM} revolutionary.F.SG (ipubcv01 145)

'*LAU: I mean/ **as for me I** am really interested in/ I mean/ building the three F/^{CMM} I am not Interested at all in/ being a Marxist revolutionary//^{CMM}'

```
(34) *PIU: a mí el vino sí me gusta//<sup>COM</sup> (efamcv04_6) to me ART.M.SG wine yes to.me like:PRS.3SG '*PIU: me I do like wine//<sup>COM</sup>'
```

```
yo/CMM
(35) *DOR: y
                                      hice
                allí
                        las
                                                                    las
                                                              and 3PL.OBJ.F
           and there
                                      make:pst.1sG
                        3PL.OBJ.F
           comí
           eat:PST.1SG
           yo/^{CMM} a mi/^{TOP_p} me
                                     gustaron//PAR (efamdl02_54)
                              to.me
                                     like:PST.3PL
                   to me
     '*DOR: and there I made them/CMM I hate them/CMM me/TOP_P I liked them//PAR'
```

Irrespective of their information structure, LD occurrences performing function (IV) signal that the speaker is about to express a personal stance, which may or may not align with the preceding interlocutors' points of view.

In conclusion, in our data, information partition does not systematically correlate with a specific discourse function; furthermore, in what follows, we show that we found no direct correlation between the prosodic type of Topics and their discourse function. Each Topic prosodic type supports different discourse functions and varies in frequency at both intra- and cross-linguistic levels.

Building on our prosodic analysis, we can compare our results with the findings of Frascarelli (2007), who argues for a direct relationship between prosodic form and function in Italian LD. Despite the theoretical differences in the description of prosodic forms, we observe a correspondence between some of the Topic types identified in our study and the contours defined by Frascarelli through the ToBI transcription system of prosodic labelling (Silverman et al. 1992). Specifically, our Type 2 corresponds to the $(L^* + H)$ Topic, while the Flat Topic with high f0 level aligns with the (H^*) Topic²⁹. According to Frascarelli, there is a biunivocal correspondence between $(L^* + H)$ contour and the function of Aboutness-shift Topic, and between (H^*)

216

²⁹ This correlation is based on the descriptive criteria provided in Frascarelli (2007) and the alignment between tonic vowel and the f0 contour in our sample. A more detailed prosodic analysis is not included here due to space constraints.

contour and the Contrastive Topic. Accordingly, in IT, we investigated whether Type 2 correlates with the Aboutness-Shift function, i.e., our function (I), introduction of a new referent, and whether the Flat type correlates with the Contrastive function, i.e., our function (III), which highlights a contrastive relation.

As for the Italian sample,³⁰ we found occurrences of Type 2 with both the function of introduction of a new or non-active referent as a Topic, that is, function (I), as exemplified in example (36) (Figure 7), and the highlighting of a contrastive relation, that is function (III), as exemplified in example (37) (Figure 8). In example (36), the new referent "altre borse", 'other bags' is introduced, which is part of the set of referents established in TS [144-145] ("ci sono varie forme di borse essenzialmente sono due", 'there are different kinds of bags basically they are two'). In example (37), a contrastive relation is established between "prendiamo un appuntamento", 'let's set up a meeting' and "almeno il giornale glielo offri" 'at least the newspaper you offer it'; in the context of political dissemination those are in fact two opposing stances.

(36) *ART: [144] ci sono/ varie &f + [145] forme di borse/ essenzialmente/ sono due//
[146] &he diciamo/ come/ tipo di lavorazione// [147] questa si chiama
+ [148] una struttura rigida/ in pratica// [149] si chiama a sascé// [150]
noi si chiama sascé/ o [/] o a scatolina// [151] praticamente si forma una
parte centrale/ e ci si applica/ le parti laterali//

```
*DAN: [152] mh mh//
```

```
*ART: [153] mentre/ altre borse/TOP le chiamano while other:F.PL bag:PL 3PL.OBJ.F call:PRS.3PL a filetto//COM (ifamdl04_144-153) a filetto
```

'*ART: [144] there are different k + [145] the kinds of bags/ basically/ they are two// [146] let's say/ like/ the type of craftsmanship// [147] this one's called + [148] a rigid structure/ basically// [149] it's called sascé// [150] we call it sascé/ or/ or little box// [151] basically you form a central part/ and then you attach/ the sides//

*DAN: [152] mh mh//

*ART: [153] while/ other bags/TOP they call them filetto//COM'

³⁰ To better illustrate the functions of LDs, the examples include preceding and, when necessary, following co-text. The terminated sequences are consecutively numbered, and the LD constituent is highlighted in bold. Each example is accompanied by its prosodic and functional annotation.

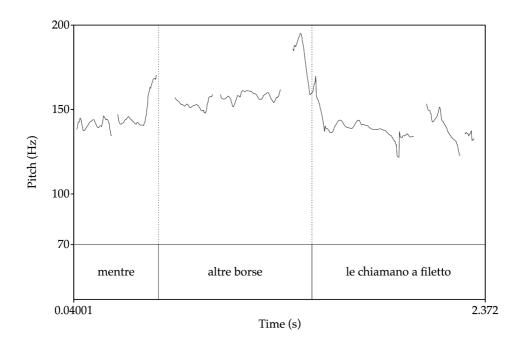


Figure 7: Prosodic contour of TS [153] in (36). Type 2 Topic: *altre borse* (*'other bags'*); function (I) (male speaker).

(37) *PAO: [492] questo io/ non lo capisco// [...] [497] nello stesso momento/ dica/ &he/ piglia la tessera &de [/] del [/] della tre F/ e costruisca la tre F/ e poi dica/ io sono di Socialismo rivoluzionario/ e non dica per esempio/ ascolta/ ci prendiamo un appuntamento/ ci si trova un'altra volta/ se ne parla/ perché secondo me/ è molto importante//

*OTT: [498] sì ma appena hai l'opportunità/

almeno il giornale/ TOP glie = lo offri/ COM at.least ART.M.SG newspaper to.him = 3SG.OBJ.M offer:PRS.2SG a una persona/ scusami// (ipubcv01_492-498) to a person excuse.me

'*PAO: [492] this I/ don't get it// [...] [497] at the same time/ say/ &he/ takes the card &of [/] the [/] the three F/ and builds the three F/ and then says/ I am from Revolutionary Socialism/ and doesn't say, for example/ listen/ let's set up a meeting/ we'll meet another time/ we'll talk about it/ because in my opinion/ it's very important//

*OTT: [498] yeah but as soon as you get the chance/ at least **the newspaper**/^{TOP} you offer **it**/^{COM} to someone/ sorry//'

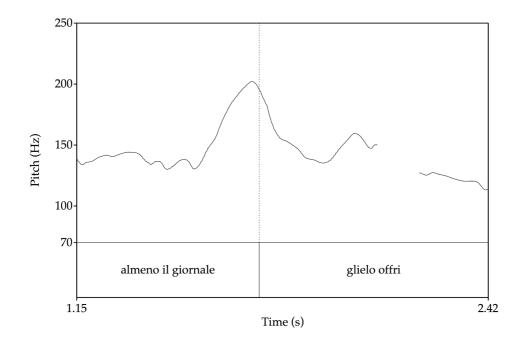


Figure 8: Prosodic contour of TS [498] in (37). Type 2 Topic: *almeno il giornale* ('at least the *newspaper*'); function (III) (male speaker).

Therefore, no direct correlation was found, in contrast to the findings of Frascarelli (2007).

Similarly, the same check for a bidirectional relationship between Topic prosodic type and discourse function was conducted for both Spanish and American English. However, the findings were consistent, revealing no correlation in either language.

Additionally, we explored potential cross-linguistic links between discourse functions and prosodic types. The result, once again, is negative, as our dataset reveals that the same discourse function is associated with multiple Topic prosodic forms across the three languages. The following examples illustrate occurrences of LD with function (I) introduction of a new or non-active referent as Topic, such as (37), in type 2, presented above for Italian (see Figure 8). Example (38) (see Figure 9), from Spanish, is a type 1 Topic, while (39) (see Figure 10), from American English, is a Flat Topic.

(38) *MOJ: [105] pues eso/ pues [/] para empezar/ ahí donde hay ese bloque grandísimo/ de casas y el jardín/ eso era todo los escolapios//
*POH: [106] &a [/] &ais [/] allí estudié yo/ y nosotros/ ahí estuvimos todos//
*MOJ: [107] era todo/ los escolapios// [108] o sea que ahí era todo escolapios/ sin [/] el jardín incluido//

[109] el jardín/^{TOP} lo regalaron al

ART.M.SG garden 3SG.OBJ.M give:PST.3PL to.the

ayuntamiento/^{COM} los escolapios//

town.hall ART.PL:M escolapios

[110] que eso no [/] tampoco lo dice nadie/ pero bueno// (efammn04 105-110)

'*MOJ: [105] so that/ well [/] to begin/ where there's that huge block/ of houses and the garden/ that was all the Escolapios Piarists//

*POH: [106] &a [/] &ai [/] I studied there/ and we/ we all studied there//

*MOJ: [107] it was all/ the Escolapios// [108] I mean that there was the Escolapios/ without [/] the garden included// [109] **the garden**/^{TOP} **it** was donated to the town hall/^{COM} by the Escolapios// [110] this is something no one [/] ever says either/ but anyway//'

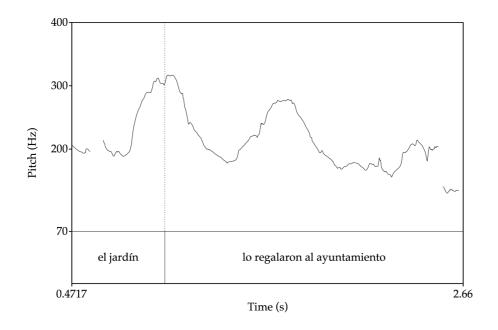


Figure 9: Prosodic contour of TS [109] in (38). Type 2 Topic: *el jardin* (*'the garden'*); function (I) (female speaker).

(39) *COR: [16] and it's like/ this one/ guy was &t [/] say/ it was like/ they got sent to the village//[17] which you don't wanna get sent to the village// [18] but they do// [19] and/ they go + [20] it was like/ this one guy/TOP he gets this master//COM [21] and/ he winds up + [22] the master/ &fi [/] falls in love with him/ but he was like + [23] like// the day before// he makes him walk around// he's like a &m [/] human// pony// (afammn05_16-23)

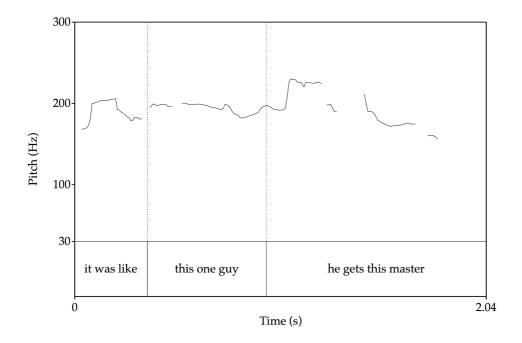


Figure 10: Prosodic contour of TS [20] in (39). Flat type Topic: this one guy; function (I) (female speaker).

In conclusion, the examples above have illustrated a lack of correlation between information structure, Topic prosodic types and discourse functions, which we observed both intra-linguistically and cross-linguistically across the three languages considered.³¹

4. Conclusions: LDs as prominence cues

Based on a functional and textual theoretical approach, and actual data from spoken Italian, Spanish, and American English LDs, we have disentangled the functional account of LDs from the notion of topicality. In fact, we have shown that the concept of Topic is not always relevant to the description of the discourse functions of LDs in the languages under scrutiny both at an information structure level or at a discourse level and that other information structure configurations are possible, as well as other discourse functions in contexts.

Neapolitan Italian, syntax and prosody contribute differently to the marking of informational categories.

³¹ A comparison with Brunetti et al. (2010) may offer useful insights, as their study suggests that in

We defined LDs as syntactic structures in which the dislocated constituent is extraclausal and is reduplicated by a co-referential pronoun. This (linear) syntactic definition allowed us to observe the functional behavior of LDs without bias from categorical concepts. To describe the discourse functions of Italian, Spanish, and American English LDs in spontaneous speech, we separately analyzed their syntactic, prosodic, and information features, and then examined how these structures interact with their contexts of occurrence.

In the first step, we demonstrated that there is no systematic correspondence between LDs' syntax and prosodic-information structure. More precisely, although LDs in our data are all syntactically partitioned by definition, not all of them exhibit an information partition, nor are they necessarily characterized by a prosodic boundary between the dislocated element and the co-referential pronoun. In particular, American English LDs are all partitioned; Italian LDs show a prevalence of partitioned LDs; and Spanish LDs show a prevalence of non-partitioned LDs. When LDs are partitioned, the dislocated constituent is placed in a dedicated tone unit with its own information function, which is not necessarily a Topic one. Moreover, the information partition does not depend on the syntactic weight of the left-dislocated constituent or on cognitive load. Last but not least, no acoustic-prosodic feature systematically marks left dislocation; that is, the prosodic contour of a left-dislocated topic constituent varies both within and across languages.

In the second step, we demonstrated that there is no systematic correspondence between prosodic-information traits and discourse functions. More precisely, discourse functions across Italian, Spanish, and American English show both high intra-linguistic and cross-linguistic variation. In particular, American English LDs are syntactically and pragmatically marked, and therefore display low frequency and low flexibility in their textual exploitation. In contrast, the discourse functions of Italian and Spanish LDs are varied and unpredictable, as they are context-dependent. In fact, the discourse functions of Italian and Spanish LDs go far beyond the assumed topicalizing function, and their use is asymmetrical within the dataset analyzed. Moreover, we demonstrated that the presence of an information partition does not systematically correlate with a specific discourse function, and that there is no direct correlation between the prosodic type of Topics and their discourse function, as each Topic prosodic type supports different discourse functions and varies in frequency both within and across languages.

In our view, the data presented argue against a fixed correlation between form and function in LDs. We have shown that, notwithstanding the presence of the pronoun resumption in all the occurrences considered, the discourse functions largely varied intra- and cross-linguistically. In other words, the discourse functions of LDs cannot be predicted based on their syntactic or prosodic-information traits. Instead, describing LDs' functions requires moving beyond an utterance-centered approach in favor of a discourse-centered one – an approach that considers, as essential factors, their interaction with the topic, logic, and dialogic dimensions of the text. Overall, regardless of the specific textual dimension involved, the discourse functions of LDs always involve the discourse prominence of the left-dislocated constituent or its related elements. Indeed, LDs signal to the interlocutor a disruption in the ongoing discourse. The discourse prominence acquired syntactically, informationally, and prosodically by the structure is thus exploited at the discourse level in a variety of contextually relevant ways.

From our perspective, LDs' discourse functions are better understood in light of the notion of discourse prominence (Himmelmann & Primus 2015), defined as a relational and dynamic structure-building principle (von Heusinger & Schumacher 2019: 117). More precisely, LDs can be described as prominence cues used by speakers to signal a disruption in the ongoing discourse, not only at a topic level, but at all levels of the architecture of texts. As we have shown, their discourse functions must be accounted for in relation to at least the topic, logic, and dialogic dimensions of the text. This means that LDs can be considered prominent not only in relation to other topic, but also to other logic relation, or dialogic textual entities. Last but not least, the nature of the discourse prominence acquired by LDs must be considered context-dependent – as it is dynamic and evolves as the text unfolds.

Our approach could be applied to the analysis of LD functions in potentially all languages of the world. Typological studies have shown that syntactic structures corresponding to those defined in this study are universally attested (Maslova & Bernini 2006). Further research is needed to establish intra-linguistic features and discourse functions, which could, in turn, enhance cross-linguistic descriptions of the discourse functions of LDs.

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Abbreviations

1 = 1 st person	DEF = definite	PL = plural
$2 = 2^{nd}$ person	F = feminine	PRS = present
3 = 3 rd person	GER = gerund	PST = past
ACC = accusative	INF = infinitive	PTCP = participle
ART = article	IPFV = imperfective	REFL = reflexive
COMP = complementizer	M = masculine	REL = relative
COND = conditional	NEG = negation	sbJv = subjunctive
DAT = dative	овј = object	sg = singular

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Prosody and the information functions of Topic in spoken Chinese according to Language into Act Theory

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Abstract

This research, framed within the Language into Act Theory (L-AcT; Cresti 2000), presents an initial analysis with both qualitative and quantitative data on Topics derived from a new, spontaneous spoken Chinese corpus (C-ORAL-ZHONG). C-ORAL-ZHONG encompasses formal and informal communication exchanges and is structured to capture dia-phasic and dia-stratic variation. The recordings in the corpus are transcribed into Chinese characters and Pinyin, aligning text and sound for each utterance. They are systematically annotated according to the L-AcT tagset and translated into Italian and English. The Topic is defined as an information unit functioning as the field of application of the illocutionary force, necessarily performed through a dedicated prosodic unit. Prosodic analysis, indeed, reveals that the Topic is systematically marked through a prefix unit, signalled by prosodic reset, pauses, or sentence-final particles. The methodology enables the provision of quantitative data. Topics play a crucial role in information structuring, occurring in nearly 20% of the reference units. This finding aligns with the traditional assumption that Chinese is a Topic-prominent language, as posited in earlier studies (Li & Thompson 1976). Examining the morphosyntactic constituents filling the Topics indicates a predominance of noun phrases (58%) and clauses (over 20%), confirming previous findings (Morbiato 2020). Considering the semantic nature of Topics, the distinctions between referential (87.8%) and modal (12.2%) Topics, and the Given (71.2%)/ New (28.8%) Topics, reveal quantitative correlations. The semantic complexity of Topics in Chinese spontaneous speech contributes to a more nuanced understanding of discourse structure and meaning.

Keywords: Topic; spoken Chinese; prosody; corpus linguistics; information; morphosyntax.

1. Introduction

The paper sketches a pilot study aimed at verifying, beyond the consistency of the L-AcT's principles and tagging methodology (Cresti et al. 2022), quantitative data, distribution, prosodic, morphosyntactic, and semantic features of the Topic units in a new Chinese spontaneous corpus (C-ORAL-ZHONG). The research is part of a doctoral project that foresees collecting and analyzing spoken Chinese, implementing this language in the IPIC Information structure database (Panunzi & Gregori 2012).

After providing a brief introduction to L-Act in the first section, section 2 will illustrate the structure of the C-ORAL-ZHONG Corpus through the presentation of quantitative data. Moving on to section 3, we will delve into the functions, distribution, and prosodic performance of the Topic. The fourth section is exclusively dedicated to the examination of the prosodic identification of the Topic, with a specific focus on pauses. Section 5 will centre on the syntactic constituency, exploring the identification of reference units and the grammatical structure of the Topic. In section 6, we will briefly touch upon certain semantic aspects, while also addressing the query of the literal repetition of the Topic within its context. The section 7 will present some preliminary working conclusions derived from the preceding results. We think the study can contribute to the ongoing research disentangling the inherent from the surface traits of the Topics in Chinese spontaneous discourse.

1.1. Premises on Language into Act Theory

The Language into Act Theory (L-AcT; Cresti 2000; Cresti & Moneglia 2018) addresses the problem of identifying speech reference units in the linguistic analysis of speech. The primary unit of reference is the utterance, which is the pragmatic counterpart to a speech act, in keeping with the definition given by Austin (1962). L-AcT's main innovation is in how it considers the utterance to be necessarily performed and identifiable through prosodic means while also corresponding to an information pattern, which may be composed of many units displaying different information functions. The centre of the information pattern is constituted by a specific information unit known as the Comment (COM), which is dedicated to accomplishing the utterance's illocutionary force and is necessary and sufficient for performing it.

An utterance may also correspond to a chain of Comments, called Multiple Comments (CMM), that give rise to Illocutionary patterns. They are conceived according to a natural rhetoric model of two or more pragmatic units (Reinforcement, List, Comparison, Alternation, etc.), performed within a prosodic pattern (Cresti 2000; Panunzi & Saccone 2018). Recognizing illocutionary patterns was significant in analyzing the C-ORAL-ZHONG Chinese spoken corpus (see section 2 and 3).

The corpus-driven research shows that also a second reference unit still accomplishing a pragmatic value but going beyond the utterance can be identified: the stanza, which is composed of at least two bound Comments (COB) or sub-patterns of information supporting a COB (Cresti 2010; Panunzi & Saccone 2018; Cresti & Moneglia 2020; Saccone 2020, 2021). The stanza accomplishes specific pragmatic activities such as descriptions, narrations, explanations, and instructions. It is performed via a sequence of homogeneous, "weak" illocutionary acts, falling outside of any previous program, through an adjunction process that follows the flow of thought (Chafe 1994).

The L-AcT methodology is based on the identification of reference units in the flow of speech and their internal segmentation depending on prosodic breaks relevant to perception (Swerts 1997). Once the reference unit is identified then it can be, indeed, segmented into information units. Perceptually relevant terminal prosodic breaks mark reference units, while information units are identified by non-terminal ones (Swerts & Geluykens 1994). Beyond reference units, encompassing utterances, stanzas, and illocutionary patterns, additional units, as interrupted utterances, may be considered because instances of disfluency.

The speech continuum is parsed into prosodic units by boundary phenomena. Thus, each information function is shaped by a perceptively relevant prosodic contour ('t Hart et al. 1990). In L-AcT, the correspondence between the information units and prosodic units is a one-to-one correlation. Boundary phenomena correlate with pitch reset, lowering of intensity, pauses, and lengthening. Prosodic boundaries are highly perceivable in connection to intentional movements on stressed syllables ('t Hart et al. 1990) and define the edges of prosodic units, which signal information functions. Thus, each information function is shaped by a perceptively relevant prosodic contour and the correspondence between the information unit and prosodic unit is compulsory.

2. The C-ORAL-ZHONG Corpus

2.1. C-ORAL-ZHONG Corpus design

C-ORAL-ZHONG corpus includes formal and informal communication exchanges. The corpus ensures both a dia-phasic variation in the type of communication (monologue, dialogue, multi-dialogue¹), place of gathering, and relationship between speakers (in the family with the mother-son relationship, in a private apartment with the relationship between a young couple, in the office of a designer, in a public place among friends), subject (the telling of fairy tales, confidential chats, work problems, operative information), and a dia-stratic variation (age, gender, school education).

For the moment, the informal part is composed of mythology stories that in China represent fairy tales, told by a mother for her child, a dialogue between a young couple discussing their work and their preference for food, and the organization of a party between friends. Regarding the formal part, texts dealing with the dialogue between a designer in his office and the builder for a renovation plan have been collected.

The C-ORAL-ZHONG data set has been transcribed in characters and transliterated in pinyin. The prosodic parsing of the terminal and non-terminal breaks is provided according to the perceptual recognition of mother tongue experts. In parallel, the sound wave is analysed through WinPitch (Martin 2011) and PRAAT (Boersma 2001), allowing the verification of perceptual judgments. The text-sound alignment of every information unit and reference unit has been provided. The word-by-word translation of each chunk is functionally characterized in English, and the translation in the current language is added. Dedicated layers are provided for segmenting the wave in connection with terminal and non-terminal boundaries and their respective correspondence with reference units, such as utterances, illocutionary patterns, and stanzas. After identifying the prosodic unit carrying the illocutionary force, i.e., the Comment, the other units are tagged according to the three criteria used within L-AcT to determine the nature of an

¹ In this paper, "conversation" is defined as a communicative exchange involving three or more participants, distinguishing it from "dialogue", which refers specifically to a two-person interaction. Therefore, in the following text, "conversation" is used in place of "multi-dialogue".

information unit: pragmatic function, prosodic features and distribution of the unit within the hosting utterance with respect to the Comment unit (Cavalcante & Ramos 2016).

Transcripts follow the L-AcT format (Moneglia & Cresti, 1997), derived from the CHAT system (MacWhinney, 2000). The prosodic units are marked at their prosodic boundary with their information function tag, and the boundaries are classified as either terminal (//,?, ...) or non-terminal (/). Each slash gives its information tag using 3 capital letters in superscript. So far, the corpus-driven classification of information types covers Textual functions, encompassing the Comment (COM), Topic (TOP), Appendix of Comment (APC), Appendix of Topic (APT), Parenthesis (PAR) and Locutive Introducer (INT), and Dialogical functions, encompassing the Incipit (INP), Phatic (PHA), Allocutive (ALL), Conative (CNT), Expressive (EXP) and Dialogical Connector (DCT). For a detailed description of information functions and their prosodic performances, see Moneglia & Raso (2014) and Cresti & Moneglia (2018). The file ID is found within the square brackets.

The English translation of the examples is not codified according to the Leipzig Glossing Rules. What is relevant in this paper is the tagging of the information structure of utterances based on the prosodic performance. These features are not foreseen in the LGR and conversely are testified by Figures that report f0 tracks calculated with Winpitch. Since noisy signals are frequent in spontaneous speech, we present the f0 face to the first harmonic. The nuclear portion of the f0 tracks, performing the Topic and the Comment units, are also manually annotated on the syllables according to their perceptual relevance. This is evaluated as fitting with the glissando threshold (Rossi 1971, 1978, 1999; 't Hart 1976; Martin 2022).

Let us see example (1) reporting the sequence of 2 simple utterances, each composed of only one Comment unit. From a syntactic point of view, they are verbless sentences, which is a frequent construct in spoken Chinese:

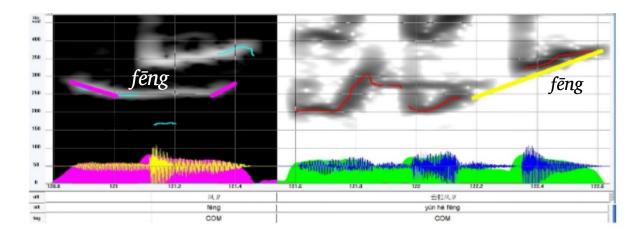


Figure 1: F0 tracks of example (1).

(2) is an example of an illocutionary pattern, composed of the strict relation (chain) between a first Comment representing a hypothesis and a second Comment suggesting an alternative to it. The rhetoric model is that of Alternation. The alternative pattern is a binary sequence of CMM, mainly composed of assertive and directive illocutions, which creates the composition of two illocutionary forces (e.g., alternative question, alternative instruction, alternative order, total contrast). Usually, both linguistic contents of CMM are semantically complete. The content of the second CMMs results always semantically related to the first (Saccone et al. 2018). It is noteworthy that this instance exhibits a particularly intriguing phonetic phenomenon: theoretically, the two consecutive third-tone syllables '' and '' should undergo tone sandhi (See Chen 2000 for more rules), causing the first syllable '' to change to a second tone in spoken language. However, in this instance, the speaker ZJH precisely enunciates '' with its original third tone. This accurate pronunciation isolates '' as a distinct prosodic unit, effectively making it the Topic unit within this illocutionary pattern.

```
让人 /
                                            舒服一点 /
(2) ZJH: 你/
              想要
       nǐ/ TOP xiǎngyào
                             ràngrén / <sup>SCA</sup>
                                           shūfuyìdiǎn / CMM
                             make people relaxed a bit
       2SG
              want
                        让人 /
                                        觉得
       或
              想要
                                                 隆重一点 //
                        ràngrén / SCA
                                                 lóngzhòng yìdiăn // CMM
       huò
              xiǎngyào
                                       juéde
                        make people
                                        feel
                                                 formal a bit
       or
              want
```

'If you want to make people feel a little relaxed, or you want to make people feel in a situation a little formal.' [zprvdl02-57]

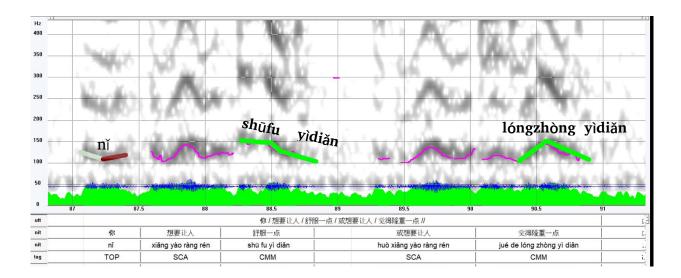


Figure 2: F0 tracks of example (2).

Let's now consider example (3), which is a stanza. Although háihǎo ba and háixíng ba share similar forms and discourse functions, they are tagged as COB (Bound Comment) and COM (Comment) respectively. This distinction arises from their different roles and prosodic features within the information structure. The first COB, háihǎo ba, due to its contiguity with the TOP, is felt as cut and seems not have a complete prosody. This "incomplete" prosody of the COB helps explain why the COM, háixíng ba, which serves a similar function, becomes the concluding unit of the entire stanza. In fact, the noun phrase "six hundred and fifty" represents a repetition from an earlier context in the conversation. The speaker, who is a designer, initially expresses agreement with this dimension realized in the first COB (okay), but then he repeats "six hundred and fifty" into the Topic. He behaves in this way to inquire about the other person's opinion accomplishing the second Comment, which introduces a request for confirmation.

This relation is casual and cannot be considered an illocutionary pattern retraceable to a rhetoric model.

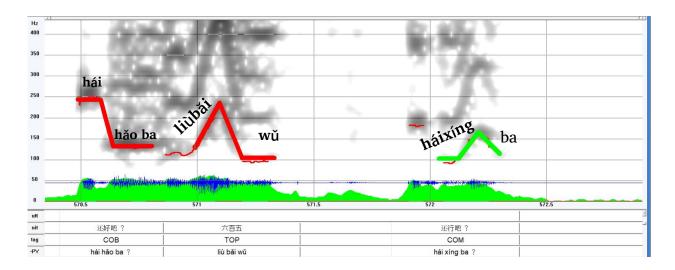


Figure 3: F0 tracks of example (3).

2.2. Quantitative data of the C-ORAL-ZHONG

The corpus C-Oral-Zhong has a total duration of 54 minutes and 26 seconds, comprising 1829 reference units, including utterances, stanzas, illocutionary patterns, and interrupted utterances. Informal dialogues, with a duration of 23 minutes and 33 seconds, account for 35.9% of all reference units, making it the largest segment of the corpus. The second-largest portion is occupied by Conversations, lasting 11 minutes and 39 seconds, corresponding to 508 reference units, constituting 27.7% of the total. Formal dialogues, spanning 11 minutes and 50 seconds, encompass 435 reference units. Storytelling, with a duration of 7 minutes and 24 seconds, is represented by 230 reference units, making up 13.6% of the total reference units in the corpus.

Let's see the Table 1 for the summary of the time information of the corpus.

Duration Information of C-ORAL-ZHONG									
	Storyt	elling	Informal dialogue		Formal dialogue		Conversation		Total
Duration	7' 24"	13.6%	23'33"	43.3%	11' 50"	21.7%	11' 39"	21.4%	54'26"
Reference Units	230	12.6%	656	35.9%	435	23.8%	508	27.7%	1829

Table 1: Duration Information of C-ORAL-ZHONG.

Let's see Table 2 and Chart 1 for detailed description of all types of reference units. As defined by L-AcT, simple utterance is considered utterances composed of only one Comment information unit (performed by a root unit and concluded by a terminal prosodic break). Concerning the four communication types, simple utterances record the highest percentage, accounting for 46.58 %.

The complex utterance is composed of optional information units beyond the Comment, and its possible combinations include TOP-COM, INT-COM, DCT-COM, COM-PAR, etc. The complex utterance was a close second in frequency, making up about 30.73% of the corpus. Notably, the share of interrupted utterances is high, nearly 10%. They are more frequent than stanzas and illocutionary patterns, which are relatively low, corresponding to 7% and 5%, respectively.

Simple utterances appear frequently in the formal dialogue, while complex utterances present a balanced distribution.

From Table 2, we can see that interrupted utterance accounts for nearly 10% of the conversation communication types, significantly higher than within the other communication types.

Reference units of the C-ORAL-ZHONG										
	Sto	rytelling	Informal dialogue		Formal dialogue		Conversation		Total	
Simple utterance	106	46.08%	245	37.35%	276	63.44%	225	44.29%	852	46.58%
Complex utterance	74	32.17%	234	35.67%	94	21.61%	160	31.50%	562	30.73%
Stanza	22	9.57%	72	10.98%	24	5.52%	18	3.54%	136	7.44%
Illocutionary pattern	14	6.09%	46	7.01%	17	3.91%	20	3.94%	97	5.30%
Interrupted utterance	14	6.09%	59	8.99%	24	5.52%	85	16.73%	182	9.95%
Reference unit	230		656		435		508		1829	

Table 2: Reference units of the C-ORAL-ZHONG.

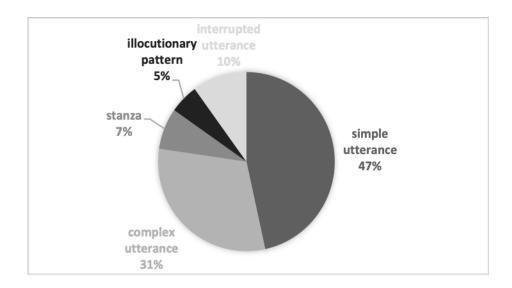


Chart 1: The distribution of reference units in the C-ORAL-ZHONG.

To rescue (Hayashi 1988; Mizutani 1988; Moerman 1988; Ng et al. 1995), the current speaker, the interrupter, provides a word, a phrase, or a sentence. It is also worth noting that similar studies have been conducted on Mandarin Chinese. For example, Lerner (1991, 1993), Li & Shi (2020) and Li (2023) have explored related syntactic and conversational features in Chinese natural conversation.

3. The Topic

3.1. Information function, prosodic performance, and distribution

In the L-AcT model, the Topic unit is the primary means of structuring information concerning the Comment. Topic provides the addressee with an adequate reference for the action the speaker is about to accomplish.

The function of the Topic is to supply the domain of application for the illocutionary force, which is, in turn, carried by the Comment. The Topic selects a domain of pragmatic relevance for the illocution, supplying the semantic and cognitive representations to which the Comment is referred. Without a Topic unit, the utterance necessarily refers to the contextual domain.

In order for a Topic to be able to fulfill its function, it has to supply an identifiable reference for the addressee. Therefore, the most frequent types of linguistic filling in Topics are nouns and prepositional phrases, ensuring a reference to individuals and space

and time coordinates. Verbal clauses and adverbial phrases are also common, signaling hypothesis and temporal sequence of events expressing the point of view of the speaker. Conversely adjectival phrases, still interpretable as speaker's evaluation, are rare (see Table 5 and Chart 4 in section 5).

The content of Topic units can be as short as a single Chinese character, see (4), or be composed of multiple Chinese words or characters, see (5) and (6). In (4), the Topic's content is only a third personal pronoun.

```
(4) PNF: 他 好奇 嘛!

tā / TOP hàoqí ma! COM

3SG curious EXCLAM

'For what regards him, he is curious!' [zpubdl01-25]
```

Example (5) can be analyzed as an instance of hanging Topic. From a general perspective, Stark (2022) defines hanging Topics as utterance-initial elements resembling adjuncts but lacking any syntactic function within the clause they precede. These elements are both syntactically and often prosodically independent, serving to denote the discourse referent.² Conceptually, retracing to the traditional definition of Reinhardt (1981), a hanging Topic can be likened to a file card, under which the related information provided in the following sentence is stored, reflecting a principle of "aboutness".

In the study of Chinese topicality, scholars like Pan and Hu (2002: 2) propose that "topics in Chinese can be licensed not only by a syntactic gap or resumptive pronoun but also by a semantic variable which does not have a corresponding syntactic position." In short, they assert that hanging topics do exist in Mandarin Chinese and are licensed semantically.

The looseness and freedom of Chinese syntax seem to offer greater convenience for this structure. Let's explore this through example (5) which features the single word 'chāoshì' meaning 'supermarket' (2 characters) and can be considered a case of hanging

² According to L-AcT, the prosodic independence of the information unit of Topic is necessary.

Topic³. Moreover, even if the noun is bare, it can be interpreted as a space argument 'at the supermarket'.

```
(5) LYF: 超市 / 买的 吗?

chāoshì / TOP mǎide ma? COM

supermarket buy:ADJ Q?

'At the supermarket, is it bought?' [zfammn01-10]
```

(6) is an example where the Topic corresponds to a temporal subordinate clause, which is composed of two words *shàngxué shíhou 'attend school'* (4 characters):

After introducing some general characteristics of the Topics as resulting from the analysis of C-ORAL-ZHONG and before dealing with some peculiar aspects, we must remember that according to the L-AcT methodology, each Information unit is necessarily performed by the speaker through a dedicated prosodic unit. The specific unit realizing Topic is called *prefix* (Hart et al. 1990). It represents a perceptual prominence⁴ (Cresti 2012) and allows to distinguish linguistic segments emphasizing them compared to the surrounding context.

The prefix contour can record different contours. Research on Brazilian Portuguese, European Portuguese, and Italian (Firenzuoli & Signorini 2003; Signorini 2005; Mittmann 2012; Rocha 2012; Cavalcante 2015) identified four types of prefix units. Currently, no research has been conducted on the possible formal variants of the prefix unit in spoken Chinese. It must be considered that this language presents specific features

³ For more examples of hanging topics, see Li & Thompson 1981. Morbiato (2022:47) defines them as a "frame of relevance (*cornice di rilevanza*)".

⁴ A prominence is determined by a complex interaction of prosodic and phonetic/acoustic parameters, essentially pitch and force accents (Gagliardi et al., 2012; Lombardi Vallauri, 2014; Barbosa, 2019).

for the generalization of prosodic contours due to the distinctive tone of the words (Chao 1980). For the moment, we have systematically verified that Topic is usually signalled at its end by the reset of f0 direction or by a pause. Anyway, it is worthy to notice that spoken Chinese can also mark it through sentence-final particles (SFP), such as $a \, \mathbb{W}$, $ya \, \mathbb{W}$, $ne \, \mathbb{W}$, and $ba \, \mathbb{W}$ (Morbiato 2020; Tao 2022). They are specific morphological features allowing to mark the non-terminal break after the Topic.⁵

The other mandatory condition according to L-AcT is the distribution of Topic that always occupies a position to the left of the Comment, although not necessarily in contiguity. Its distribution, therefore, is constrained. Moreover, it is possible that more than one Topic occur in an utterance, three being the most significant number until now. In our corpus, only cases of double Topics have been found. Let's see example (7), where two Topics occur: the first corresponds to only one-word zàijiā (2 characters), a hanging Topic functioning as a space argument, and the second diǎn shāokǎo de rén is composed of four words (5 characters), which is an adjectival phrase, representing an individual integrated by a relative clause. F0 tracks of Figure 4 allow us to clearly recognize the sequence of two distinct prefix contours.

(7) XJH: 在家 / 点烧烤的人 / 是 谁 呀 ? zàijiā / TOP diǎn shāokǎode rén / TOP shì shéi ya ? COM at home order BBQ:ADJ person be who SFP 'At home, the one who order the BBQ, who is?' [zprvdl02 - 90]

In conclusion, the identification of the Topic depends on functional, distributional, and prosodic features. In particular: a) the consistency with the information function (field of application of the illocutionary force); b) the distribution before the Comment, and c) the performance through a prosodic unit of the prefix type.

⁵ For a further study of the differences between all types of Chinese sentence-final particles, see Shao (2016) and Sun (1999, 2005); for a traditional study, see Lyu (1974).

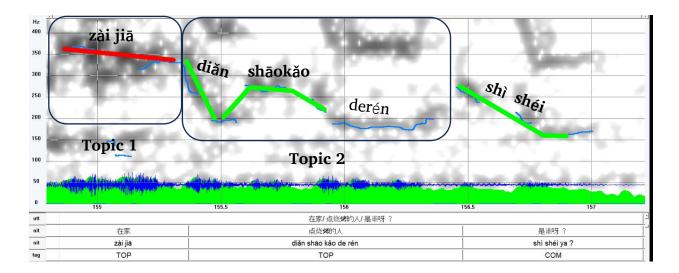


Figure 4: F0 tracks of example (7).

3.2. Topic's quantitative data

Before dealing with quantitative data of Topic, we would like to highlight that our research constitutes a systematic analysis and tagging of the entire C-ORAL-ZHONG corpus, rather than being limited to selectively chosen examples, as frequently proposed in the literature. Thus, the quantitative data on the Topic are measured across the entire corpus according to the criteria established by L-AcT.

In this regard we would like to refer to a recent and significant article by Tao (2022) who calls into question the topic evaluation. He raises doubts, indeed, about defining Chinese as topic-prominent language as assumed by the tradition starting from Li & Thompson (1976). He argues that there is a lack of empirical data grounded in objective evidence to confirm this assumption. Specifically, Tao's research reports that only 4% out of all clauses presents the occurrence of topics. This limited quantitative data, therefore, challenges the characterization of Chinese as a topic-prominent language.

However, it is crucial to consider two points: the nature of texts analyzed by Tao and the criteria of identification of reference units respect to which Topic are identified. Tao's analysis was conducted on telephone conversations and written texts, therefore on one side it should be emphasized that research on a varied corpus of spontaneous spoken language can complement his research. On the other hand, there is an underlying theoretical problem pertaining to the identification of the reference units that Tao

proposes as the clause. The Author defines the clause as a verbal predicate, comprising mainly verbs and adjectives, found in both single and complex clauses, aligning with the Longman Grammar (1999) proposal. In this framework, topic is generically described as a discourse notion as a kind of "addition" construction to the clause, limited by syntactic and semantic restrictions. This choice must be relied to the debate that has considered the syntactic sentence deemed inconsistent with speech analysis. However, Tao noticed that even choosing the clause as the reference unit poses challenges for analysing Chinese because of the existence of primary and secondary clauses (see Chao 1968 for the research on Chinese syntactic structures).

Conversely according to our analysis conducted on the spontaneous speech of the C-Oral-Zhong corpus, the quantitative data of the Topic, identified through prefix prosodic units, reaches 19% out of reference units. It's worth noting that studies still conducted within the L-AcT's methodology on spontaneous spoken Italian, the result is 15% (Moneglia & Cresti 2015). Therefore, the high value of percentage data could potentially support the consideration of Chinese as a topic-prominent language. According to C-ORAL-ZHONG data, considering all the reference units of the four communication types, the overall percentage of Topics is higher than 19 % (19.74 %), a finding that we can estimate higher than that found for Italian occurrences (DB-IPIC, Panunzi & Gregori 2012).

The relevance of the Topic in Romance spontaneous speech has been shown by Firenzuoli and Signorini (2003), Signorini (2005), and Mittmann (2012). The latter considers the Topic's occurrence only measuring all types of compound utterances and report that 31.5% of Italian and 21.7% in Brazilian Portuguese contain at least one Topic. Moreover, the American English (AE) mini-corpus analysis shows that in American English, 22.1% of compound utterances have at least one Topic unit (Cavalcante 2015).

If we consider also interrupted utterances representing nearly 10% and exhibiting completed Topic units in certain instances the percentage of Topic units in C-ORAL-ZHONG rises to 36.95% within the set of reference units. This datum appears in line with the notion of Chinese being a topic-prominent language, as suggested by Li and

⁶ Building on this observation, it's noteworthy to mention that a substantial portion of utterances in spoken Chinese lacks verbs. Consequently, in such instances, defining the Topic as an adjunct to a clause becomes challenging or impossible.

Thompson (1976). Nevertheless, it is imperative to validate these findings on a more extensive and representative corpus.

The literature reports that the Topic is usually more frequently found in monologues, as it was also checked for spoken Italian and Brazilian Portuguese (Moneglia & Cresti 2015) since in monologues utterances should refer to domains not necessarily present in the immediate context. However, this does not seem to be the case in the C-ORAL-ZHONG because, as shown below, considering the duration of storytelling and formal dialogues, the number of Topics in the formal part of the corpus is not very meaningful.

Most Topics occur in the complex utterance type, corresponding to 76%. Almost 14 % of the Topics are distributed in stanzas, and the occurrence of Topics in illocutionary patterns is shallow, only 3%. Moreover, let's make a comparison on the possibility of occurrence of Topic in stanzas and complex utterances: while in the 136 stanzas, the chance of occurrence of Topic is 37%, in 562 complex utterances, the chance of occurrence of Topic unit is higher according to 49%.

Let's see Table 3 and Chart 2 for the distribution of all Topics in the corpus. As we can see in Chart 2, more than half of the Topics appear in informal dialogues⁷. Topics in conversation account for one-fifth of the corpus, while storytelling and formal dialogue account for 15 % and 13 %, respectively. Considering the 11'50" duration of formal dialogues, the number of Topics in formal dialogues could be more meaningful.

The absence of a balanced and standardized temporal framework across the four communication types in the table precludes direct numerical comparisons. However, the percentages therein function as absolute indicators of relative weighting, facilitating intertype comparisons. Consequently, the likelihood of a Topic manifesting in a complex utterance is maximized within formal dialogues, while storytelling exhibits the highest probability of a Topic emerging in stanza. Furthermore, within the spectrum of communication types, the illocutionary pattern of informal dialogues attains the highest probability for the appearance of a Topic.

⁷ Please note that the corpus contains 23 minutes of informal dialogues, which is significantly longer than the other types. This difference in duration likely affects the distribution of Topics across different dialogue types. So, this conclusion is specific to this corpus and may not be applicable to all instances of spoken Chinese.

Topics of the C-ORAL-ZHONG										
	Storytelling		Informal dialogue		Formal dialogue		Conversation		Total	
Complex utterance	43	78.18%	132	71.74%	40	83.33%	58	78.38%	273	75.62%
Stanza	9	16.37%	29	15.76%	6	12.50%	6	8.11 %	50	13.85%
Illocutionary pattern	0	0%	9	4.89%	0	0%	3	4.05 %	12	3.33%
Interrupted utterance	3	5.45%	14	7.61%	2	4.17%	7	9.46%	26	7.20%
Reference unit	55		184		48		74		361	

Table 3: Topics in the C-ORAL-ZHONG.

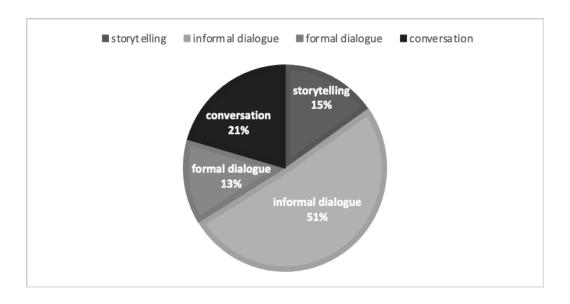


Chart 2: The distribution of Topics in C-ORAL-ZHONG.

4. Topic's Prosodic Features

4.1. General data of prosodic features

As we anticipated, no research on the formal variants of the prosodic unit of the prefix has been conducted. Only the occurrence of a dedicated prosodic unit and the modalities

of the non-terminal prosodic breaks that identify them have been examined systematically in the C-ORAL- ZHONG.

Let's recall that the prefix unit can be marked within the prosodic pattern of the utterance through reset, pause, or sentence final particle (SFP). In the corpus, 80 % of the prefix contour signaling Topics are distinguished by reset as usually occurring for instance in Romance languages (Moneglia & Cresti 2015; Cavalcante 2015). The key elements to recognize the reset are the change in the height of the starting point of the f0 movement and the change of directions of the f0 motion of the following root prosodic unit, signaling the Comment.

Only 15% of prefix units are marked by a pause, contrary to our expectation. We considered only a silence of more than 150ms as a pause, according to the average duration of stop consonants (cf. Giannini 2008; Dovetto & Gemelli 2013). It is worth noticing that although pause also implies reset, anyway 80% of reset cases are without pause.

In conclusion, given that only a small part of the Topics is marked by pause and the majority by reset, only by being able to verify the prosodic parameters of the Topic's performance through an adequate software allows to appreciate as a relevant aspect its identification on a prosodic basis.

In spoken Chinese, in addition to the above two segmentation cues, sentence-final particles (SFP) are employed to signal the unit of Topic (Morbiato 2020). In C-ORAL-ZHONG, there are only 13 cases of SFP out of 361 cases of Topic (3,6%), whose larger part occurs in the storytelling and the informal dialogues. Only two instances appear in the conversation, and no instance has been found in the formal dialogue.

The relatively high occurrence of SFP in informal dialogues and storytelling, which are different types of communication exchange, should be related to the intimacy of the speakers, who are mother and son for the storytelling and a couple for the informal dialogues. As we know, intonation is an indispensable means of expressing the speaker's attitude and feelings in all languages.

The tone of voice must be distinguished by the distinctive tone of the Chinese words; generally speaking, the level of intonation, the speed of speech, and the way of pronunciation may all be involved in the expression of the speaker's attitude. We wonder whether the Chinese language, unique in its SFP use, employs the morpheme for this goal (Liu et al. 2001; Fan et al. 2003; Liu 2008). The utilization of SFP appears to enhance

the expression of emotions, potentially leading to more frequent usage in intimate relationships.

As indicated in Table 4, we observed no instances of SFP marking Topics in formal dialogues. In Table 4 and Chart 3 the quantitative data regarding reset, pause and SFP in the expression of TOPs are summarized:

Prosody features of Topics in the C-ORAL-ZHONG										
	Storytelling		Informal dialogue		Formal dialogue		Conversation		Total	
Reset	43	78.18%	145	78.80%	42	87.50%	64	86.49%	294	81.44%
Pause	7	12.73%	33	17.94%	6	12.50%	8	10.81%	55	14.96%
SFP	5	9.09%	6	3.26%	0	0%	2	2.70%	13	3.60%
Total	55		184		48		74		361	

Table 4: Prosody features of Topics in the C-ORAL-ZHONG.

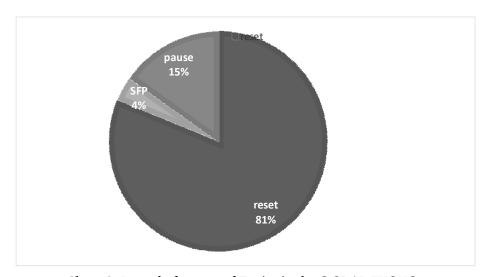


Chart 3: Prosody features of Topics in the C-ORAL-ZHONG.

4.2. Examples of reset, pause, and SFP

Let's see Figures 5, 6, and 7 of examples (6), (3), and (10), respectively, showing the f0 tracks of a case of reset, pause, and SFP. It is worth noting that in (6) because the Comment begins with the third tone, " \exists " ($zh\check{i}$), which requires a lower pitch to

articulate, it is very likely that a reset is implicitly present. However, our laboratory experiments discovered that when a sentence does not follow a Topic-Comment structure, the third tone changes can be perceptible. Still, the entire utterance typically follows a single downward contour (declination line).

Conversely, in Figure 5 provided in the text, we can observe a clear reset between the Topic and the Comment. Specifically, the gap between the end of the Topic "时候" (shīhou) and the beginning of the Comment "只" (zhǐ), reaches nearly 50Hz, after a very brief pause of about 50ms. This gap makes the reset perceptually noticeable. In cases of simple utterances, composed of only one Comment, the f0 of words would be more integrated.

(6) XJH: 上学 时候 / 只 想着 玩儿 // shàngxué shíhou / TOP zhǐ xiǎngzhe wáner // COM attend school when only think:PROG play:AUX 'When you attend school, you only think about playing.' [zprvdl01-295]

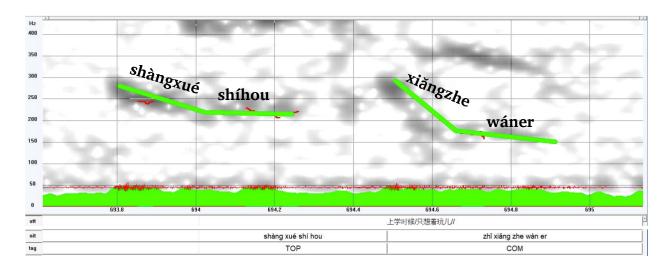


Figure 5: F0 tracks of example (6) with reset.

(3) PNF: 还好 吧/ 六百五 / 还行吧 ?

háihǎo ba / COB liùbǎiwǔ / TOP háixíngba ?COM
okay Q six hundred fifty not bad Q
'Okay, six hundred and fifty, all right?' [zpubdl01-346]

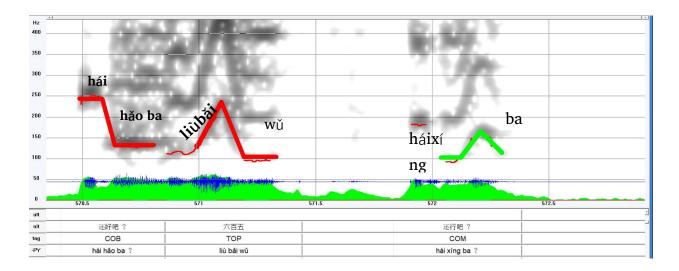


Figure 6: F0 tracks of example (7) with pause.

In example (8), there is a sentence final particle between the Topic and the Comment \mathcal{H} ne, which separates the 2 information units. Due to the separation, the Topic stresses the prominence, emphasizing the relevance of the number of the sun's sons.

(8) LYF: 他的		十个		儿子	呢 /		
tāde		shígè		érzi	ne / TOP		
3sg:p	OSS	ten:CL	ASS	son	SFP		
每	一个	人	都 /				
měi	yígè	rén	dōu / ^{so}	CA			
each	one:CLF	people	e all				
代表		一个		太阳 // tàiyáng // ^{COM}			
dàibid	ĭo	yígè					
repre	sent	one:CI	F	sun	sun		

'Concerning his ten children, each individual represents a sun.' [zfammn02-14]

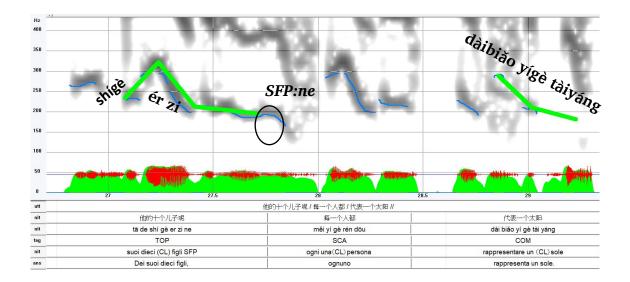
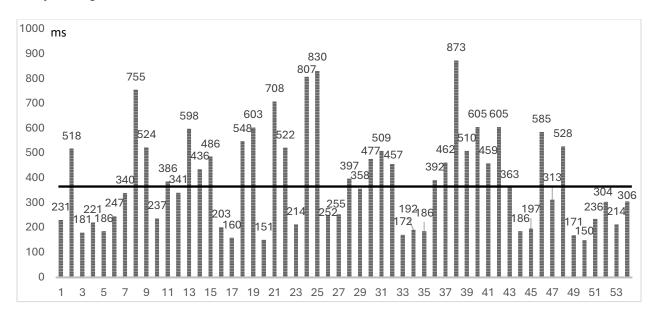


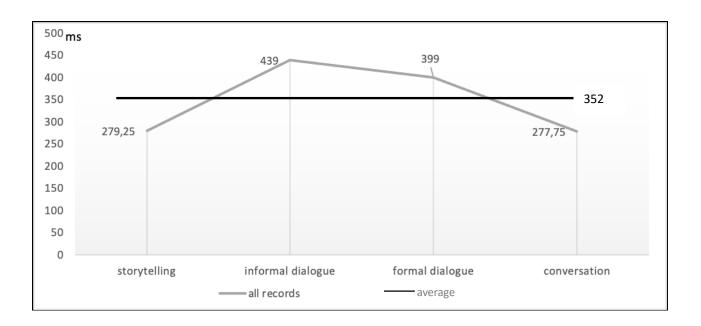
Figure 7: F0 tracks of example (10) with SFP.

4.3. Detailed data on pauses

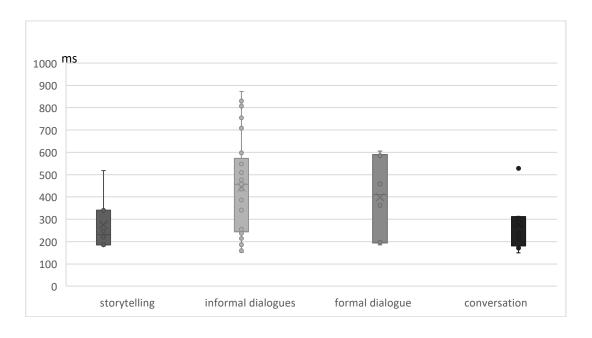
The following graphs 1, 2, and 3 regard various aspects of pauses. Graph 1 shows a large gap between the average duration of 352ms and each pause. In Graph 2, based on the average pause duration of 352ms, the longer duration appears in the dialogues, which are 439ms and 399ms; meanwhile, the shorter pauses of 279ms and 277ms appear in the storytelling and the conversation.



Graph 1: The duration of all pauses in the C-ORAL-ZHONG.



Graph 2: The pause's average length according to the type of communication.



Graph 3: The pause's distribution according to type of communication.

Notwithstanding the elevated pause durations observed in all dialogue types in Graph 2, Graph 3 illustrates a distinctive pattern in the distribution of pause durations within formal and informal dialogue types. Specifically, in formal dialogues, the duration of pauses demonstrates a more centralized distribution, primarily falling within the range of 200ms to 600ms. Conversely, pauses in informal dialogue types exhibit a dispersed distribution.

In summary, the analysis of pause durations accompanying topical elements reveals substantial variability in the corpus, ranging from a minimum of 150ms to a maximum of 873ms. An observable trend across various types of communicative exchanges indicates that the average pause duration of the Topic in the dialogues consistently exceeds the computed mean value of 352ms. Notably, informal dialogues exhibit a marked heterogeneity in pause durations, while formal dialogues present a more concentrated distribution of pause lengths. It is imperative to note that further data are required to substantiate the generalization of these observed patterns.

5. Topic's constituency

5.1. Quantitative data

The syntax of complex utterances, illocutionary patterns, and stanzas corresponds to a combination of semantic and syntactic "islands", each of which is an independent phrase or clause. Islands are bound to each other by pragmatic information functions participating in a single utterance (Cresti & Moneglia 2010; Cresti 2014).

As anticipated, the Topic must provide a domain of reference for the illocution; thus, the constituents of Topics are mostly noun phrases, personal pronouns, deictic pronouns, and prepositional phrases, ensuring a reference to individuals and space and time coordinates. However, it must be highlighted that more than 12% of Topics are modal, where the speaker expresses his or her point of views and attitudes regarding the accomplishment of the Comment illocution. They correspond to 44 cases composed of hypothetical and temporal/hypothetical clauses, modal adverbials, adjectival phrases (see section 6).

The following examples demonstrate all the constituency types appearing in the C-ORAL-ZHONG corpus. For the use of a personal pronoun, let's revisit in examples (2) and (4). As for a deictic pronoun, let's see (9).

In this dialogue scenario, the speakers were discussing a client's house design, with a screen in front of them displaying the floor plan of the bedroom. When discussing the curtain design, speaker HNC clicked on the floor plan with a mouse, indicating that extending the curtain size to this point, i.e., beyond the electric curtain control box, made no sense. Therefore, in example (9), "这个" refers to the size of the curtain, and "你做过来" means that you made the edge of the curtain extend to here.

For examples of a temporal clause, we can cite (6) and the following (10), recording a final particle:

For an adverbial phrase, let's see (11). This example is still part of the design discussion. Since there is a floor plan and the two have been working together for a long time, they are very familiar with each other's speaking styles. Consequently, they use sentences that are short and simple. HNC also clicks on the floor plan with the mouse to propose his design idea: 'Above the cabinet, we use glass doors.

⁸ In Chinese, '我们 can mean 'we' or 'us,' and '我们的 (we-ADJ)' means 'our.' In this context, the speaker LYF intended to say 'our,' but she stopped at '我们 (we)' without completing the sentence. The '嗯 that follows indicates the sentence's lack of fluency. In the translation of this case, to ensure the translation is smooth, the author chose to translate it as 'our'.

We must also consider cases of hanging Topic, where the linguistic filling corresponds to a single noun. However their function sometimes may be also adverbial. As seen in (5) 超市/买的吗? and (7) 在家/点烧烤的人/是谁呀?,the Topics with single nouns are interpretable as spatial Topics.

Still, we can also consider an example with a hypothetic clause, see (12).

Example (13) can be taken as one of the few adjectival phrases:

In (13) the noun of the trademark $yiji\bar{a}$ (1 word composed of 2 characters) is followed by the morpheme de, which gives an attributive value to the noun preceding it.

Let's refer to Table 5 and Chart 4 for further research on the lexical fillings of Topics in the C-ORAL- ZHONG corpus.

Table 5 shows that out of the 361 Topics found in the corpus, 209 are noun phrases (NP), according to 58%, and among the NP types, there are 34 personal pronouns and 25 deictics. NP appeared most frequently in the Topics of the formal dialogue, at 71%. One point worth noting is that most NPs are common nouns. The second most frequent type is clause (CL), which account for 98, representing over one-fifth of all the Topics.

Among them, there are 30 hypothetical clauses. Otherwise, the clauses are temporal by preference, but also "opinion" clauses have been considered.

The Syntax-semantics of Topics the C-ORAL-ZHONG										
	Stor	ytelling	Informal					ersation	То	otal
NP	27	49%	113	61%	34	71%	35	47%	209	58%
Pronoun	2		16		9		7		34	
Deictic	4		7		2		12		25	
PP	6	11%	18	10%	7	15%	10	14%	41	11%
Deictic	1		3		1		1		6	
CL	20	36%	47	26%	5	10%	26	35%	98	27%

Table 5: The Syntax-semantics of Topics in the C-ORAL-ZHONG.

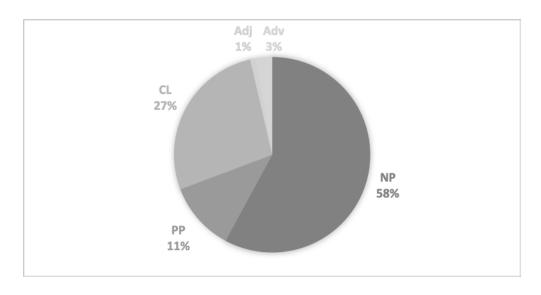


Chart 4: Topics' constituency in the C-ORAL-ZHONG.

We have classified as opinion clauses a group of clauses in which opinion verbs occur, such as think (*觉得: juéde*), know (*知道: zhīdào*), not know (*不知道: bùzhīdào*), feel (*感觉: gǎnjué*). These opinion clauses systematically precede the Comment and are identified by a dedicated prosodic unit, signaled by reset or pause. They don't represent the main assertion verb, but only a likely premise to the event in the Comment, see Example (14).

In (14), we observe that the verb "觉得" (think) is semantically weak although it could be syntactically considered to govern the entire subordinate clause (Blanche-Benveniste & Willelm 2016). It is the content of the alleged subordinated clause that undeniably constitutes the core of the information of the utterance, while the verb "觉得" serves as an indication of viewpoint. In spoken language, for the sake of clear distinction of the information role, the speaker even employs pauses to finalize the segmentation of two prosodic units to emphasize the function of Topic.

觉得 / (14) ZJH: 其实 我 味道 相对 会 清淡 一点 // qīngdàn yìdiǎn // COM gíshí juéde / TOP wèidào xiāngduì huì wŏ flavor relatively mild a.little.bit actually 1s_G think COND "Actually, I think, the flavor will be relatively mild." [zprvdl02-141]

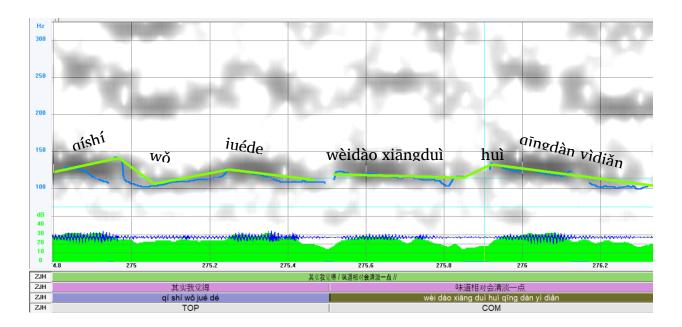


Figure 8: F0 tracks of example (14).

The percentage of clauses in storytelling is 36%, which is in line with expectations, given that this type of communication substantially has the qualities of a monologue, where the structure of the sentences is organized in a relatively complex and complete manner.

Prepositional phrases (PP) types account for 11%. In the whole corpus, we found ten adverbs (Adv) and only a tiny number of adjectives (Adj), 3 in all, appear in the Topics.

The research shows a substantial consistency between the typology of the morphosyntactic constituents that fill the linguistic islands of Topic, as identified prosodically by L-AcT, and the proposals previously advanced by the literature (Morbiato 2020). Of course, corpus research also offers quantitative data that allow us to evaluate the weight of specific syntactic categories and structures with particular reference to their occurrence in different types of communication.

6. Topic's Semantics

6.1. Referential and Modal Topics

According to Cresti and Moneglia (2018; Moneglia & Cresti 2022), the domains supplied by Topic can designate persons, places, time, and other circumstances providing an identifiable reference to the addressee. Additionally, the Topic unit can supply the speaker's personal judgment regarding the illocutionary value of the utterance, developing modal semantics. Thus, Topics' content from a semantic point of view can be distinguished as referential and modal.

The examination of the functional role of "sentence adverbs" (Lonzi 1991) encompassing both evaluative and epistemic or evidential modals - has been undertaken concerning spoken language by De Cesare (2016) and in written language by De Cesare (2018) within the framework of the Basel Model (Ferrari 2014). The adopted interpretative framework aligns closely with the principles proposed in L-AcT. According to L- AcT theory, the concept of modal Topic (Moneglia & Cresti 2022) emerges in the organization of information based on spontaneous speech data. Within this paradigm, Modal Topics are discerned through a pragmatic, rather than a semantic, definition of the Topic, as outlined in L-AcT (Cresti & Moneglia 2018). Specifically, in the realm of spoken language, expressions in Italian like "secondo me" (according to me) or "praticamente" (practically); in Chinese like "我觉得" (I think) or "基本上" (basically) Identified as evaluative or epistemic/modal adverbial phrases, they assume the role of Topic. This is substantiated by their distribution at the left periphery of the utterance but above all by their performance through a dedicated prosodic unit highlighting a perceptual prominence, like the other prefix units, indicating an informative framing function (see 14 其实我觉得 / 味道相对会清淡一点 //).

Overall, it can be said that Topics are referential when their constituency corresponds to nominal and prepositional phrases and clauses of circumstantial subordination. Conversely, modal Topics, which can be interpreted as the explicit self-reference to the speaker's point of view, are constituted mainly by adverbials and hypothetic/time clauses (if-when clauses) with an epistemic value.

For instance, examples like (4), (5), (6), (7), (8), (9), (10), and (11) can be considered referential from a semantic point of view.

For examples of modal Topics, we need to return to (12) with a hypothetical clause and (13) with an adjectival phrase.

Adjectives as modal Topics are actually rare, with only this one example in the entire corpus. In (13), the Topic's content can be interpreted as a hypothetic clause "if something is of Ikea", expressing the speaker's evaluation.

Then we can add (15), where the usage of a second personal pronoun: you (你: nǐ) before a Comment accomplishing a request for confirmation must be interpreted not as a deictic reference but as an adverbial phrase "in your opinion" 9.

6.2. Given and New

Most Topics can be considered, from a semantic point of view, as Given. An utterance typically (but not necessarily) is based on a bipartite structure of information composed of Topic and Comment. The semantic content of the necessary unit of Comment,

⁹ See Moneglia & Cresti (2022) for further information.

conveying the illocutionary force of the utterance, is by definition New since it is a speaker intervention in the context that cannot be foreseen before (Cresti 2000). The Topic content, instead, can contain information of two kinds: something that the speaker and listener already knew, that is Given, something they did not yet know, that is New (Lambrecht 1994). Generally, the concepts of given/new are used to evaluate the status of referents evoked by phrases, such as persons, objects, events, etc. Information evaluated as given or new is denotative and by preference given evoking a referent or an event of the world (De Cesare 2010). However, even in a minority of cases the Topic can be filled also by denotative referents that are introduced for the first time in the exchange with the addressee, resulting New.

Let's see for an instance of a given Topic the example (16) with its context:

```
(16) HNC: 你 /
                       内结构
                                           不变 //
           nĭ / TOP
                                           búbiàn // COM
                      nèijiégòu
                      inner structure
                                           NEG:change
          "As for you, you don't change the inner structure." [zpubdl01 - 360]
          内结构 /
                            不用
                                        变了 //
  PNF:
                                        biànle // COM
          nèijiégòu / TOP
                           búyòng
          inner structure
                           NEG:need
                                        change:AUX
          'The inner structure, you don't need to change it.' [zpubdl01 - 361]
```

In the Comment of the first utterance, the speaker HNC threw out an argument, $n\grave{e}iji\acute{e}g\grave{o}u$ (inner structure), accomplishing an assertion, which is new by definition. In the second utterance, the other speaker PNF resumed the argument by repeating the same word as the Topic, which functions as the field of his assertion, to show his agreement which in turn is evidently new. The semantic character of the Topic is given.

In the corpus, we also have referential Topic which are New. Let's see (17) with context:

```
(17) ZJH: 单独 去 设计 //

dāndú qù shèji // COM

separately to design

'To design separately.' [zprvdl01 - 177]
```

```
我觉得 / 还是 OK的 //
wǒ juéde / háishì OKde // com
I think still is OK:ADJ
'I think is OK.' [zprvdl01 - 178]
```

能够 形成 统一的 风格 //
nénggòu xíngchéng tǒngyīde fēnggé // сом
can form unity:ADJ style
'You can form a unified style.' [zprvdl01 - 179]

颜色 / 也不用 太 跳跃 // yánsè / TOP yě búyòng tài tiàoyuè // COM color also NEG:need too bold

'The colors, also don't need to be too bold.' [zprvdl01 - 180]

In this segment of the recording, the context of this piece is that the speaker discusses the stylistic choices for the book cover design. The speaker employs a series of Comments to articulate various viewpoints. However, in the final utterance, the speaker unexpectedly shifts the focus to the topic of "颜色" (color). He believes that when it comes to design, the selection of colors does not need to be overly bold or involve highly contrasting hues. In this utterance, the word "color" is distinguished as a Topic separate from the Comments by using prosodic prominence. From a semantic perspective, this Topic can be considered as New. The speaker had been discussing the stylistic choices for designing individual book covers within a series, notably emphasizing the need for separate designs for each book, without mentioning color in the initial utterances. Therefore, when the topic of color was suddenly introduced, it became a distinct and contrasting subject in the discussion. Like we discussed before, the speaker's use of prosodic prominence when mentioning "颜色" (color) underscored its importance, further highlighting its emergence as a new Topic. Throughout the recording, the discussion of color stood independently, unrelated to preceding content, capturing listeners' attention with its sudden introduction. In the corpus, there are also 60 referential topics that are New.

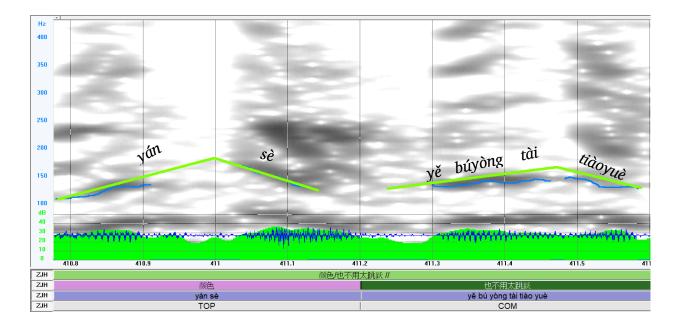


Figure 9: F0 tracks of example (17).

It's worth noting, however, that according to L-AcT, modal Topics are also considered (see examples 12, 13 and 15). As they express the speaker's point of view and signal the addressee to their judgments on the same utterance, they cannot be extracted from the context and assigned to shared knowledge. They are new by definition (Cresti & Moneglia 2022). Crucially, they represent a significant 12.2% with 44 cases. Therefore, the overall proportion of New Topics in the entire corpus is 28.8%.

6.3. The case of repetition

In order to explain the common semantic nature of the Topic to be given, which in fact represents 71.2% with 257 cases, it is proposed in the literature that the Topic is easily used in the form of a literal repetition of something that has already been said before by the same speaker or the addressee, as for instance in (16). However, it must be done a distinction from what is a generic resumption from the context and what is a literal repetition. We have verified in C-ORAL-ZHONG the occurrence of 18 cases out of 361 Topics, accounting for about 5%, in which the semantic content of Topics is a complete repetition of something said before. However, the literal repetition in Topic is always a

content transferred from a previous Comment, which accomplishes an illocutionary function. Therefore, the content of the repetitive Topics even being identical from a lexical point of view develops a different information function.

For instance, the four cases of literal repetition of the same speaker, 'the mom', that have been found belong to the seven-minute storytelling. The storyteller employs a series of self-repetitions with the apparent aim of continually reinforcing the audience's impression of the story. Through the reiterated presentation of analogous plot points or details, the narrator seems to seek to fortify the coherence of verbal expression and the logical relationships between sentences. This repetitive technique serves to ensure a clearer comprehension and retention of the narrative's focal points by the audience. By means of repetition, the narrator can enhance the consistency of expression, diminish interpretational ambiguities, and augment the audience's receptiveness to the story. Ultimately, through the recurrent presentation of analogous plot elements, the narrator may deepen the audience's perception of specific emotions or situations, thereby conveying the emotional nuances of the story in a more profound manner.

Still, in all the examples we can sketch that this repetition is the passage from a previous Comment to the Topic of a new utterance of the same speaker. Let's see the example (18) with the context manifesting the retrieval of the previous Comment:

```
(18) LYF: 累倒了 //
          lèidǎole // COM
          tired faint:PST
          'He fainted from exhaustion.' [zfammn01-52]
    LYF: 累倒了 /
                                    就
                                         死去了 //
                            他
                                         sĭqùle // COM
          lèidǎole / TOP
                                    iiù
                            tā
                                         die:pst
          tired faint:PST
                            3pst
          'Fainted from exhaustion, so he died.' [zfammn01-54]
```

Conversely, we found 14 cases of repetition in Topic, which is the reprise of the Comment of a different speaker. They are clearly inserted as Topics in new utterances implementing their own illocutions. Let's see the example (19) with its context. It manifests how the content of the Comment of speaker WGR becomes the Topic of the utterance produced by ZHS that in turn accomplishes a request for confirmation.

```
(19) WGR: 卤的
                              那个 /
                                            土豆牛肉吧 //
            lŭde
                             nèigè / SCA
                                            tǔdòuniúròuba // COM
            marinate:ADJ
                             that:CLF
                                            potato beef AUX
            'Marinated potatoes and beef.' [zprvcv01- 321]
                                        卤?
      ZHS: 土豆 /
                        还
                                能
            tǔ dòu / TOP
                        hái
                                       lŭ? COM
                                néng
            potato
                        also
                                       marinate
                                can
            'Potatoes, also can be marinated?' [zprvcv01- 323]
```

In conclusion, the literal repetitions don't result being an inherent feature of topicality. The majority of literal repetitions, indeed, occurs not in terms of the retrieval of the Topic's content from a previous Topic with an identical wording because the literal repetition usually accomplishes a new Comment with an illocutionary change. Thus, the same wording conveys two different illocutionary forces and cannot be considered a simple repetition. Let's see the following example (20), where the presentative assertion of speaker WGR is questioned by speaker ZHS and then submitted to a request for explication. No Topic involvement is implemented.

```
下午
                         开始 //
(20) WGR:
                         kāishǐ // COM
            xiàwǔ
            afternoon
                         start
            'It starts at afternoon' [zprvcv01- 132]
     ZHS:
            下午
                      开始?
                                   为啥
                                             下午
                                                       开始
                                                               呢?
                      kāishĭ? COM
            xiàwů
                                   wèishá
                                             xiàwǔ
                                                       kāishǐ ne?
            afternoon start
                                   why
                                             afternoon start
                                                               SFP
            'It starts at afternoon? Why it starts at afternoon?' [zprvcv01- 133/134]
```

7. Conclusion

In the framework of the Language into Act Theory (Cresti, 2000), this research aims to conduct a comprehensive qualitative and quantitative analysis of Topics in spontaneous

spoken Chinese. Using the C-ORAL-ZHONG corpus, consisting of 1829 reference units, we identified 361 Topic units, constituting nearly 20% of the total, aligning with the established characterization of Chinese as a Topic-prominent language.

The investigation into prosody, limited to means of marking the boundary of the Topic, reveals that they are predominantly signaled through reset (80%). Pauses, identified by silences exceeding 150ms, mark 15% of Topics, often in conjunction with resets. SFPs can also signal Topics, but in our corpus, there are only 13 cases, occupying 3.6%. Their occurrence is consistently observed in informal contexts, with zero instances found in formal contexts. This pattern suggests that SFPs are selectively employed, predominantly in informal settings, reflecting nuanced variations in speaker intimacy. This raises intriguing questions about the unique role of SFPs in conveying attitudes and emotions within the Chinese language.

A systematic study of the morphosyntactic constituents of Topics reveals that noun phrases occupy 58%, while clauses make up approximately 20%, showing substantial consistency with proposals advanced in the literature. However, corpus research also provides quantitative data allowing us to evaluate the weight of specific syntactic categories and structures, particularly concerning their occurrence in different types of communication.

In the analysis of Topics, we emphasize their semantic nature—both referential and modal—in the context of Chinese spontaneous speech. Referential Topics are predominantly composed of nominal and prepositional phrases, along with circumstantial subordinate clauses. In contrast, modal Topics, indicative of explicit speaker self-reference and developing modal semantics, are primarily constituted by adverbials and hypothetical clauses with an epistemic value. The semantic status of Topics, whether referential or modal, is closely tied to the Given/New distinction. While the majority of referential Topics can be considered Given (71.2%), representing information already known to both the speaker and the listener, 60 referential Topics and 44 modal Topics are classified as New (28.8%).

Corpus-based research shows that literal repetition is infrequent (3.6%). Overall, the semantic complexity and varied functions of Topics in Chinese spontaneous speech add layers of richness to our understanding of discourse structure and meaning.

List of Abbreviations

AE: american english COB: bound comment PAR: parenthesis

ADJ: adjective COM: comment PHA: phatic

ADV: adverb COND: conditional PP: prepositional phrase

ALL: allocutive DCT: dialogical PRF: perfective

APC: appendix of connector PST: past comment EXP: expressive Q: question

APT: appendix of topic F0: fundamental SCA: scansione (cf. Cresti,

AUX: auxiliary verb frequency 2010)

CL: clause INP: incipit SFP: sentence final

CLF: classifier INT: locutive introducer particle
CMM: multiple comments NEG: negation TOP: topic

CNT: conative NP: noun phrase

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