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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-dialogue[1]), 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:

(1) LYF*:* 风// 云 和 风//
fēng // COM *yún* *hé* *fēng// COM*
wind cloud and wind
‘Wind. Clouds and wind.’ [zfammn01- 62/63]

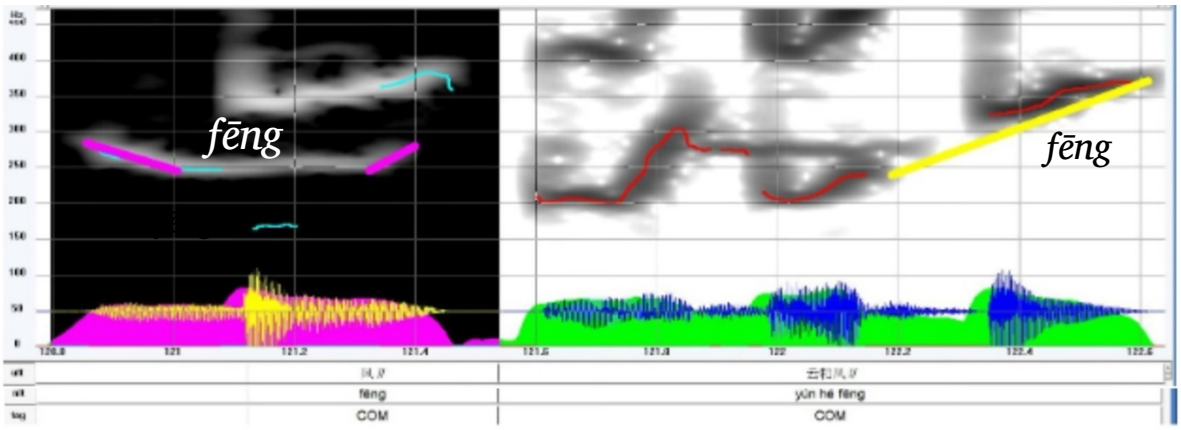


Figure 1: F0 tracks of example (1).

(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 '*你* and '*想* should undergo tone sandhi (See Chen 2000 for more rules), causing the first syllable '*你* to change to a second tone in spoken language. However, in this instance, the speaker ZJH precisely enunciates '*你* with its original third tone. This accurate pronunciation isolates '*你* as a distinct prosodic unit, effectively making it the Topic unit within this illocutionary pattern.

(2) ZJH: 你/ 想要 让人 / 舒服一点 /
nǐ/ ^{TOP}*xiǎngyào* *ràngrén* / ^{SCA} *shūfuyìdiǎn* / ^{CMM}
2SG want make people relaxed a bit
或 想要 让人 / 觉得 隆重一点 //
huò *xiǎngyào* *ràngrén* / ^{SCA} *juéde* *lóngzhòng yìdiǎn* // ^{CMM}
or want make people feel formal a bit
'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]

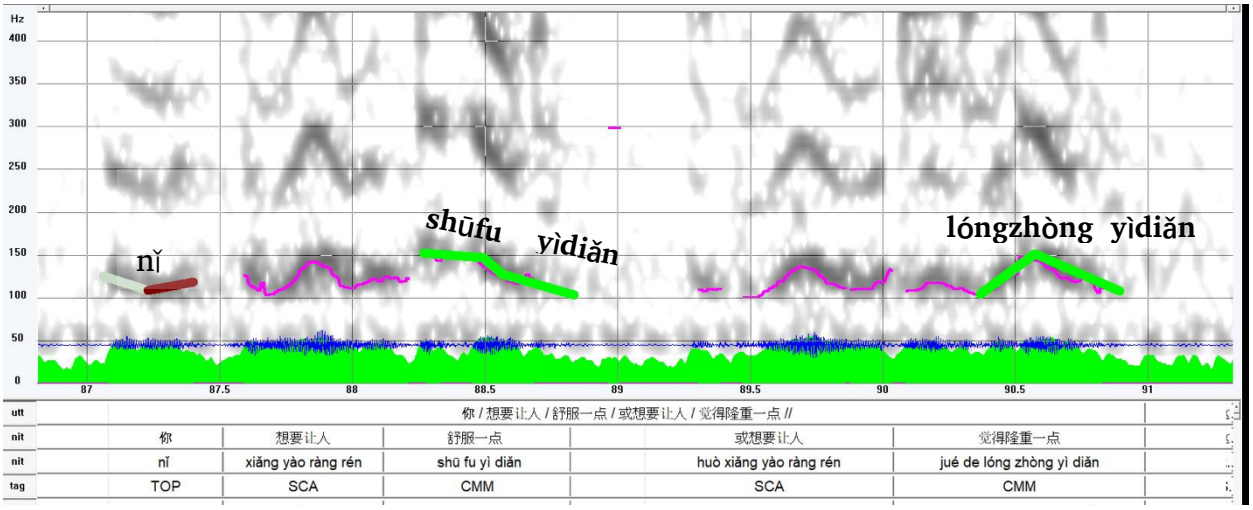


Figure 2: F0 tracks of example (2).

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.

(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]

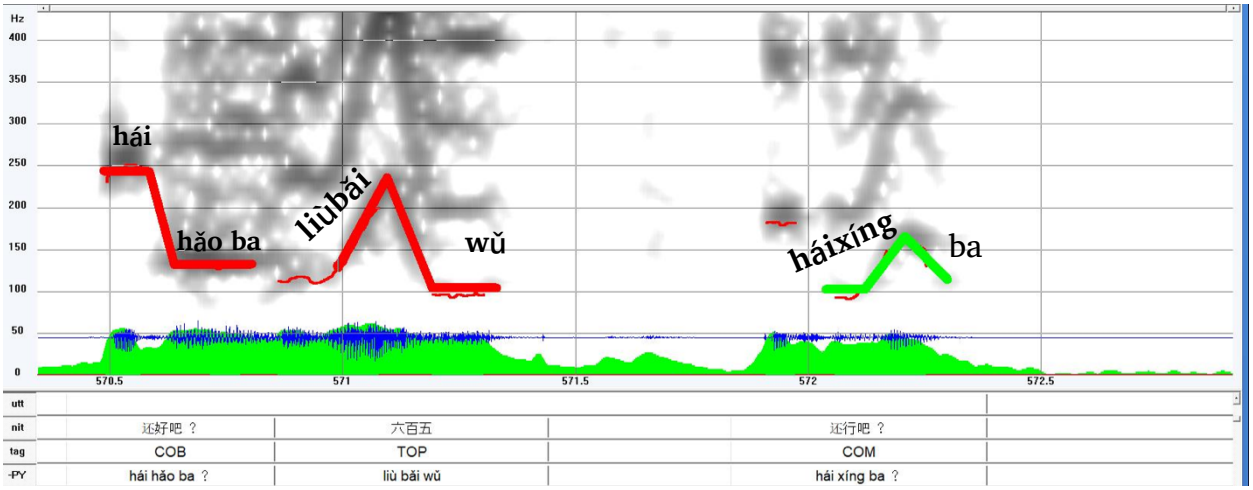


Figure 3: F0 tracks of example (3).

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									
	Storytelling		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										
	Storytelling		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.

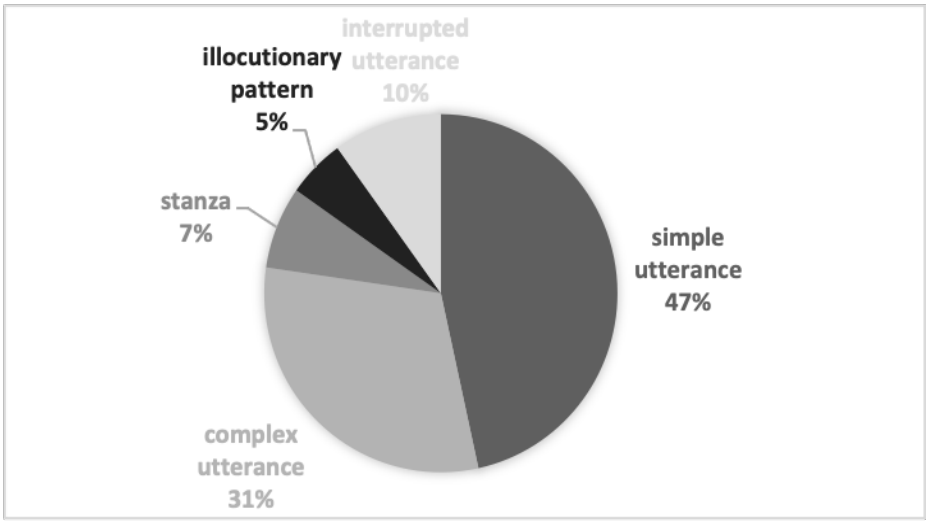


Chart 1: The distribution of reference units in the C-ORAL-ZHONG.

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.

Topic[3]. 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):

(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]

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 prominence[4] (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 啊*, *ya 呀*, *ne 呢*, and *ba 吧* (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).

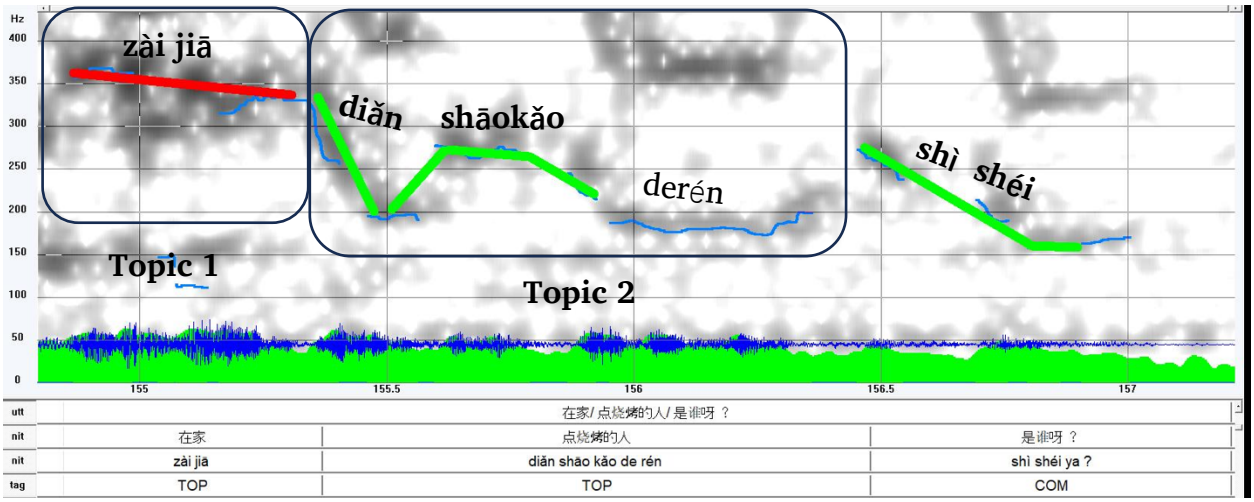


Figure 4: F0 tracks of example (7).

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).[6]

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 dialogues[7]. 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.

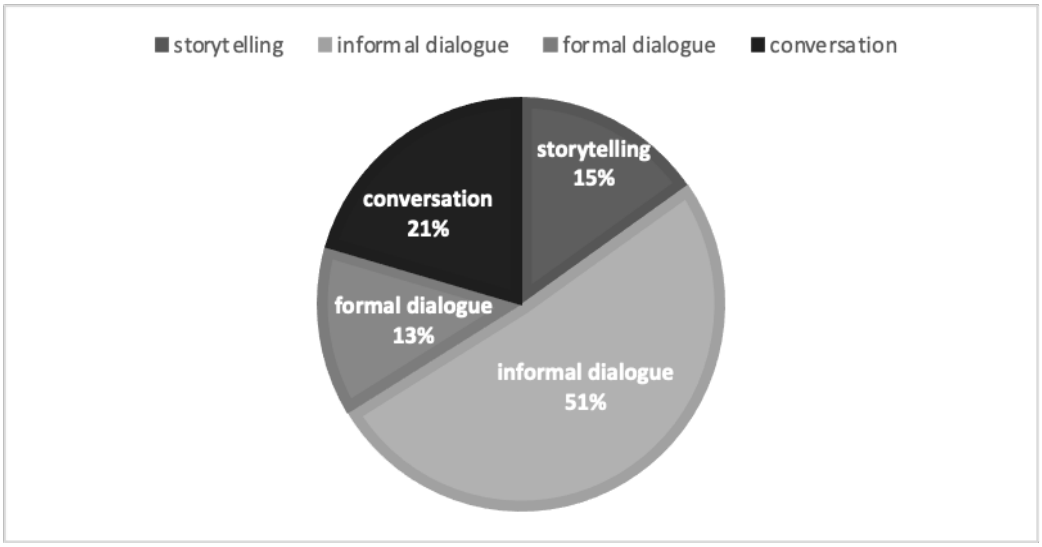


Chart 2: The distribution of Topics in C-ORAL-ZHONG.

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.

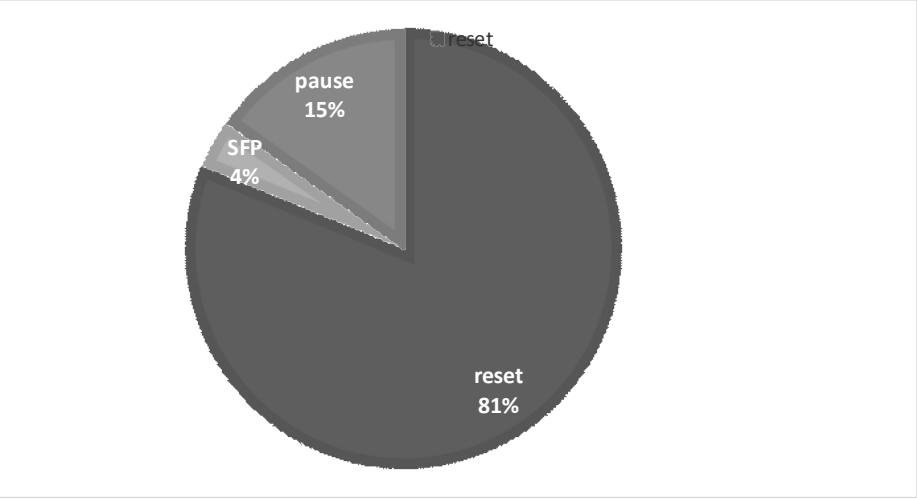


Chart 3: Prosody features of Topics in the C-ORAL-ZHONG.

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, “只” (*zhǐ*), 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" (*shíhou*) 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]

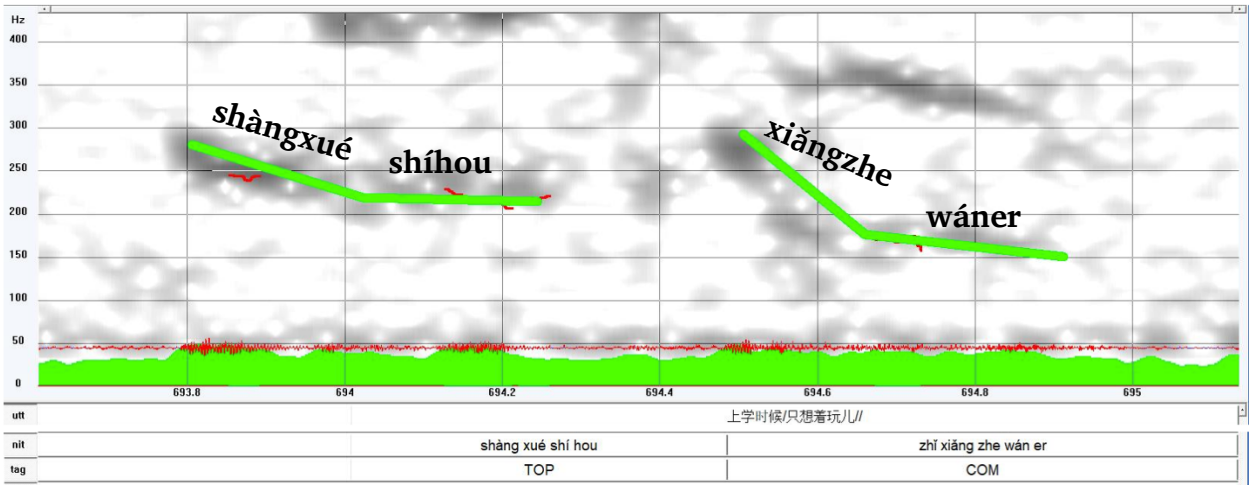


Figure 5: F0 tracks of example (6) with reset.

(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]

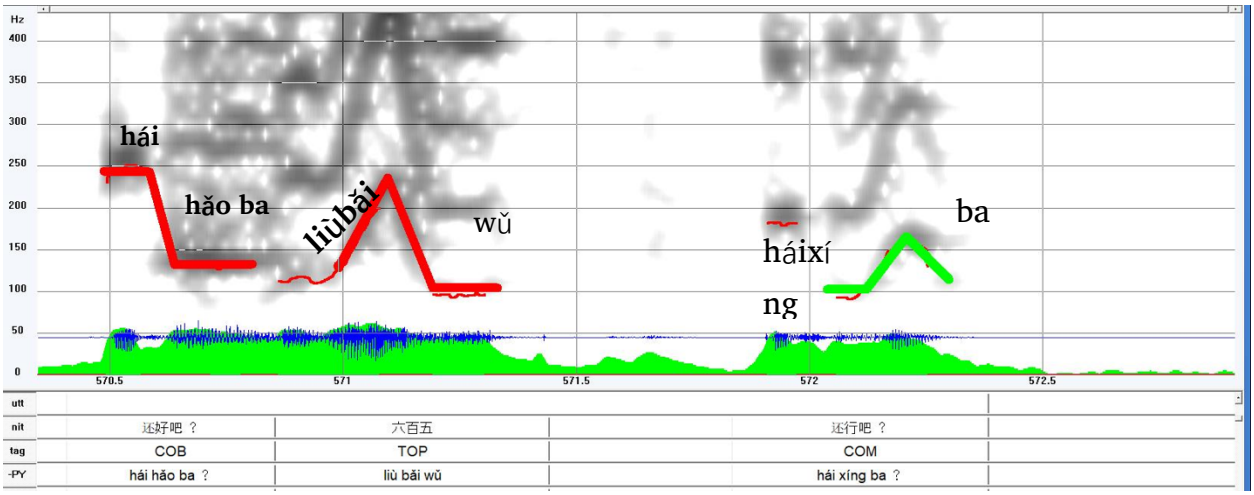


Figure 6: F0 tracks of example (7) with pause.

In example (8), there is a sentence final particle between the Topic and the Comment *呢 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:POSS ten:CLASS son SFP
每 一个 人 都 /
měi *yígè* *rén* *dōu* / SCA
each one:CLF people all
代表 一个 太阳 //
dàibiǎo *yígè* *tàiyáng* // COM
represent one:CLF sun
'Concerning his ten children, each individual represents a sun.' [zfammn02-14]

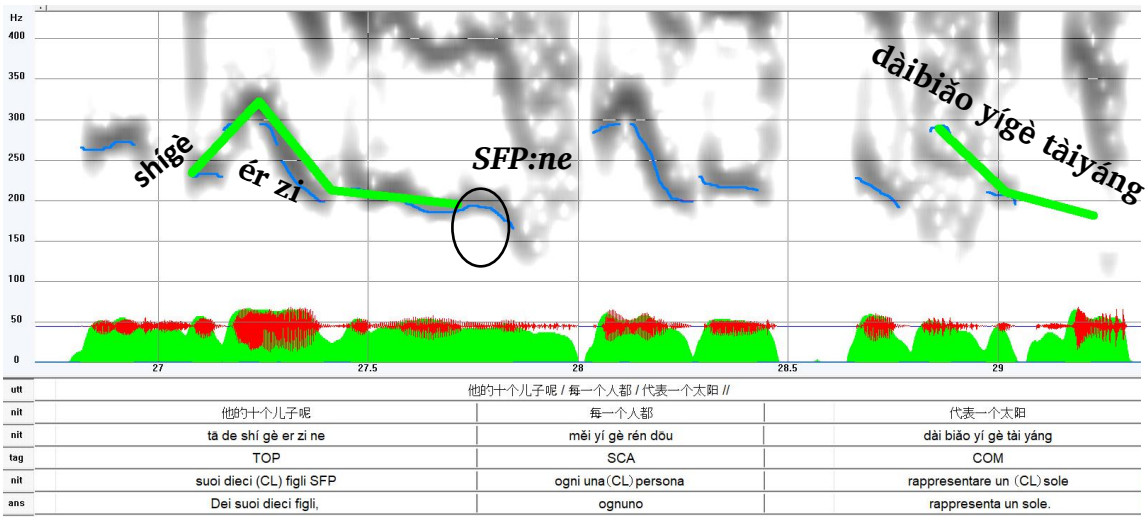
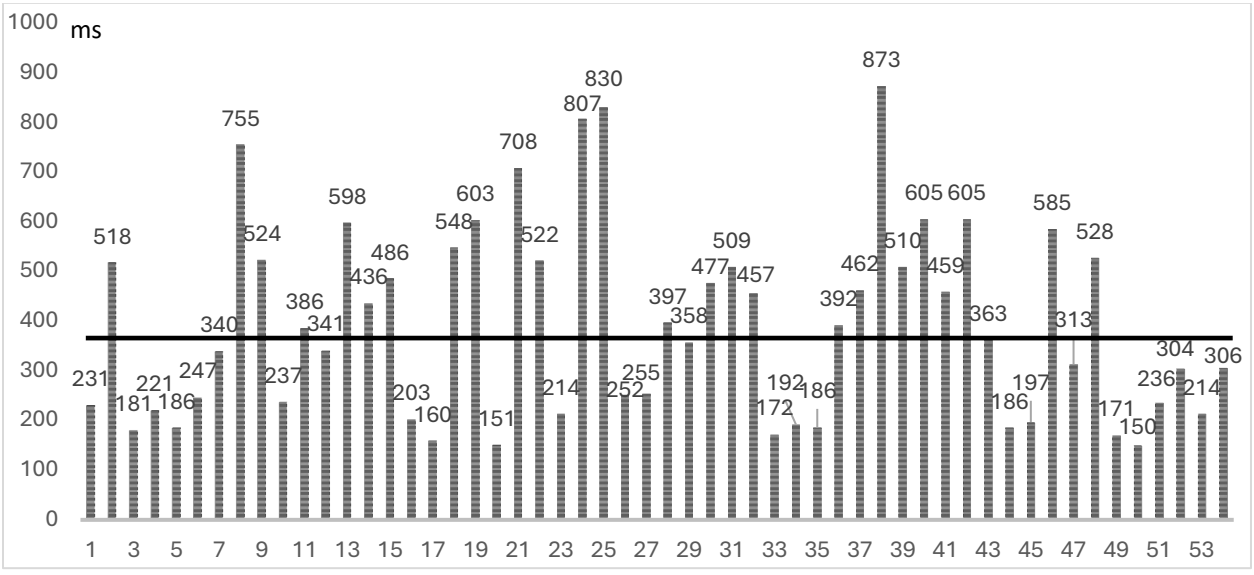


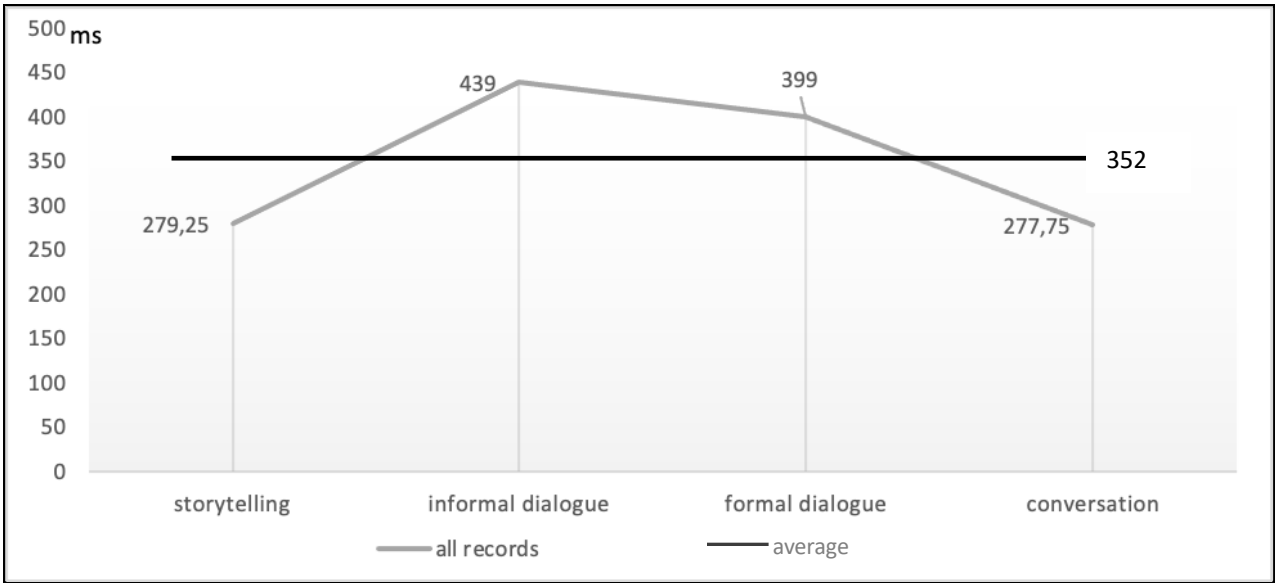
Figure 7: F0 tracks of example (10) with SFP.

4.3. Detailed data on pauses

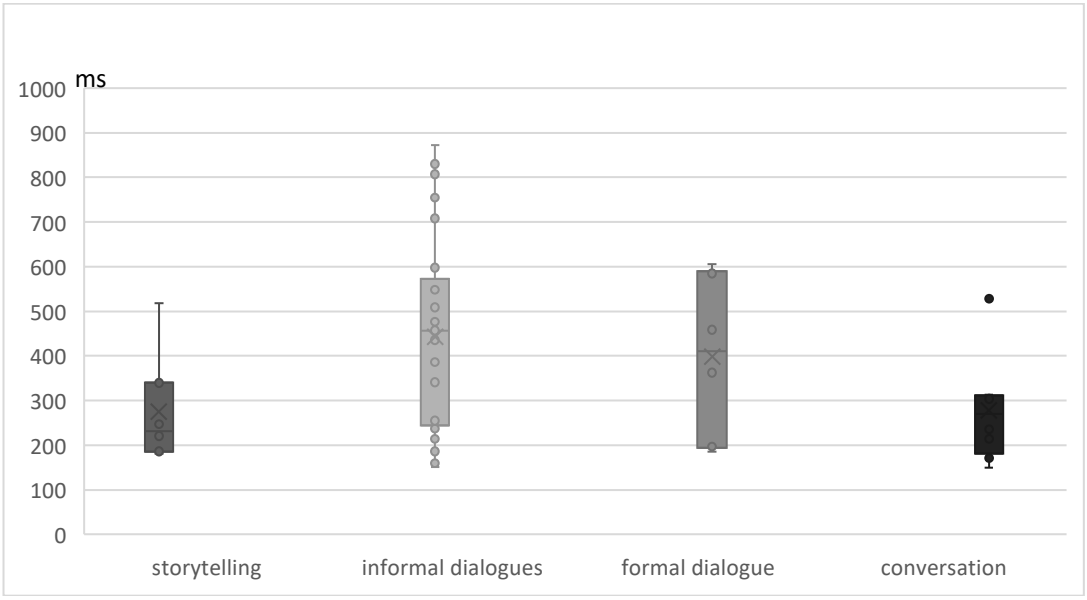
The following graphs 1, 2, and 3 regard various aspects of pauses. Graph 1 shows a large gap between the average duration of 352ms and each pause. In Graph 2, based on the average pause duration of 352ms, the longer duration appears in the dialogues, which are 439ms and 399ms; meanwhile, the shorter 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.

(9) HNC:	这个 /	你	做	过来	没有意义 //	
	zhèige / TOP	*nǐ*	*zuò*	*guòlái*	*méiyǒu*	*yìyì* // COM
	this:CLF	2SG	do	over here	NEG.have sense	

‘This piece，doing it up to here, it doesn't make sense. ’ [zpubdl01-43]

For examples of a temporal clause, we can cite (6) and the following (10), recording a final particle:

(10) LYF:	死去了	以后呢 /	他的	身体 /
	Sǐqùle	*yǐhòu ne* / TOP	*tāde*	*shēntǐ* / TOP
	die:PST	after SFP	2SG:POSS	body

变成了	我们 /	嗯 +	
Biànchéngle	*wǒmen* / SCA	*èn* +	COM +
became:PRF.PST	1SG.PL	emm	

‘After he died, his body became our [8], emm…’ [zfammn01-56]

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’.

(11) HNC: 上面 / 玻璃 门 //
shàngmian / TOP *bōlí* *mén* // COM
above glass door
'Of above, a door of glass.' [zpubdl01-194]

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).

(12) XJH: 那 我. 想 出去 玩 / 怎么 办 呢 ？
nà *wǒ* *xiǎng* *chūqù* *wán* / TOP *zěnme* *bàn* *ne ?* COM
so 1SG want go out play how do Q
'So if I want to go out, how to do ?' [zprvdl02-350]

Example (13) can be taken as one of the few adjectival phrases:

(13) PNF: 宜家的/ 家具/ 质量 太 差了//
yíjiā de / TOP *jiājù* / TOP *zhìliàng* *tài* *chà le* // COM
Ikea ADJ furniture quality too bad AUX
'Of Ikea, the furniture quality is too bad.' [zpubdl01 - 20]

In (13) the noun of the trademark *yíjiā* (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										
	Storytelling		Informal dialogue		Formal dialogue		Conversation		Total	
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.

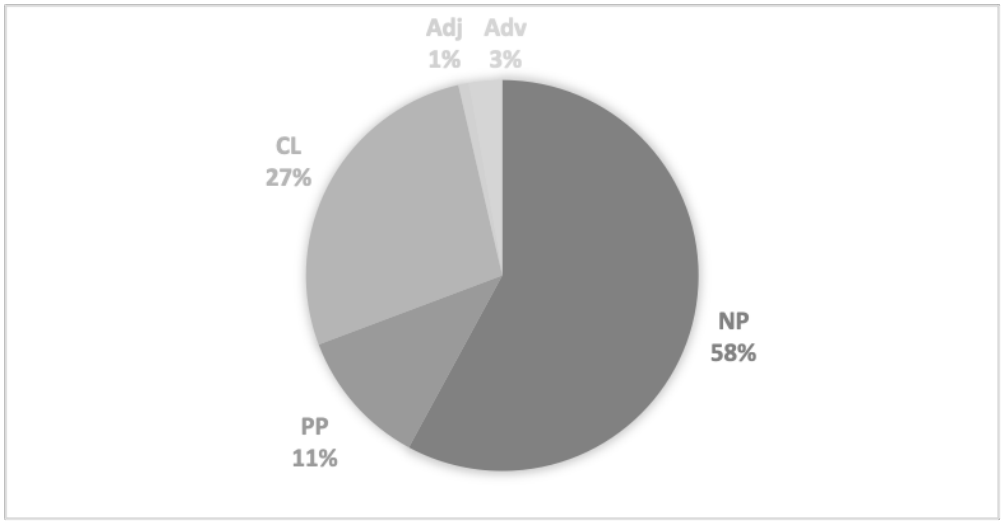


Chart 4: Topics' constituency in the C-ORAL-ZHONG.

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.

(14) ZJH: 其实 我 觉得 / 味道 相对 会 清淡 一点 //
qíshí *wǒ* *juéde* / TOP *wèidào* *xiāngduì* *huì* *qīngdàn* *yìdiǎn* // COM
actually 1SG think flavor relatively COND mild a.little.bit
“Actually, I think, the flavor will be relatively mild.” [zprvdl02-141]

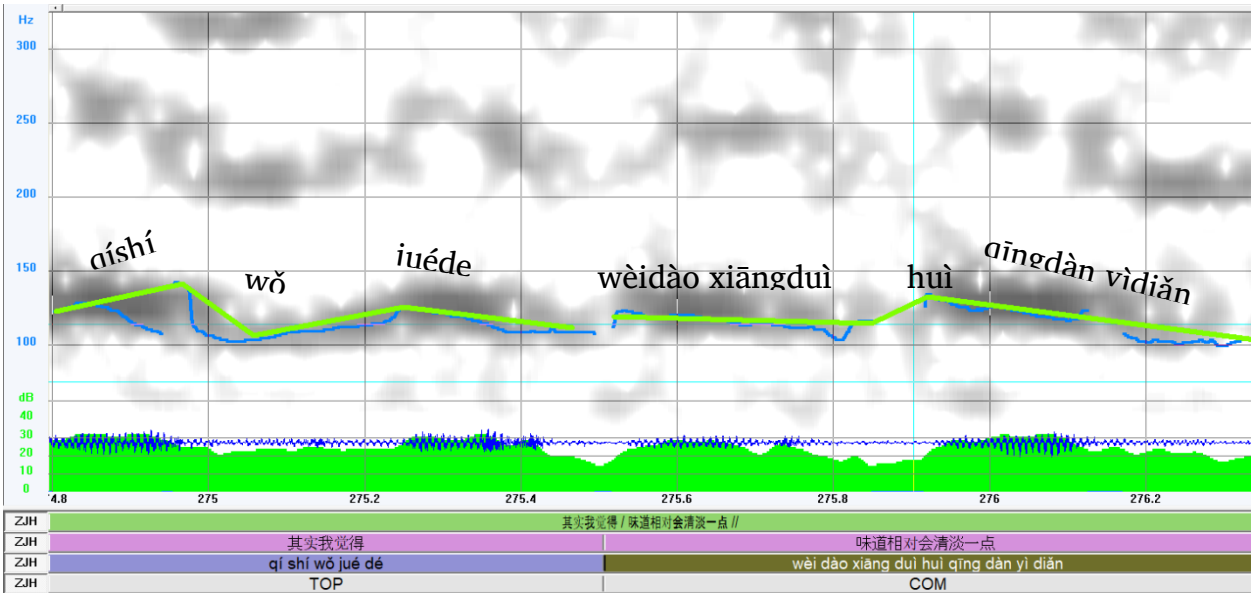


Figure 8: F0 tracks of example (14).

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.

(13) PNF: 宜家的/ 家具/ 质量 太 差了//
yíjiā de / TOP *jiājù / TOP* *zhìliàng* *tài* *chà le // COM*
Ikea ADJ furniture quality too bad AUX
'Of Ikea, the furniture quality is too bad.' [zpubdl01 - 20]

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].

(15) HNC: 你 / 怎么 放包 呀 ?
nǐ / TOP *zěnme* *fàngbāo* *ya ? COM*
2SG how put bag Q
'According to your opinion, how to put the bags?' [zpubdl01-387]

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 //
nǐ / TOP *nèijiégòu* *búbiàn* // COM
you inner structure NEG:change
"As for you, you don't change the inner structure." [zpubdl01 - 360]
PNF: 内结构 / 不用 变了 //
nèijiégòu / TOP *búyòng* *biànle* // COM
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, *nèijiégòu* (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 // COM*
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.

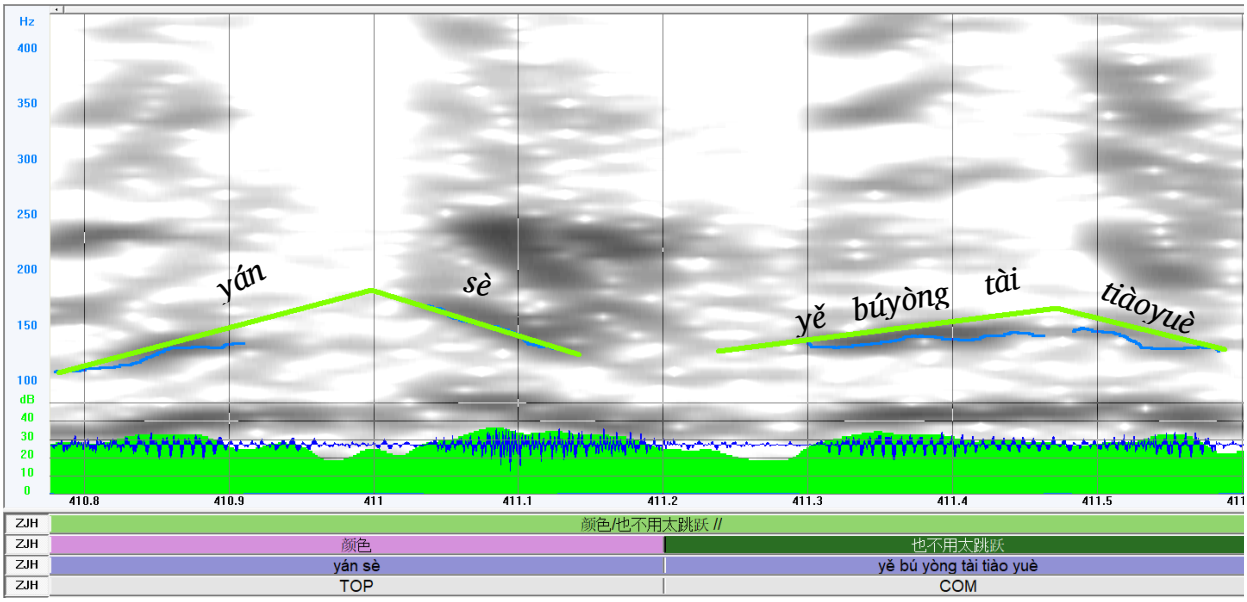


Figure 9: F0 tracks of example (17).

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 / 他 就 死去了 //
lèidǎole / TOP *tā* *jiù* *sǐqùle* // COM
tired faint:PST 3PST so die:PST
'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 //
lǔde *nèigè* / SCA *tǔdòuniúròuba* // COM
marinate:ADJ that:CLF potato beef AUX
'Marinated potatoes and beef.' [zprvcv01- 321]
ZHS: 土豆 / 还 能 卤 ?
tǔ dòu / TOP *hái* *néng* *lǔ?* COM
potato also can marinate
'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.

(20) WGR: 下午 开始 //
xiàwǔ *kāishǐ* // COM
afternoon start
'It starts at afternoon' [zprvcv01- 132]
ZHS: 下午 开始 ? 为啥 下午 开始 呢?
xiàwǔ kāishǐ? COM 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
ADJ: adjective
ADV: adverb
ALL: allocutive
APC: appendix of comment
APT: appendix of topic
AUX: auxiliary verb
CL: clause
CLF: classifier
CMM: multiple comments
CNT: conative
COB: bound comment
COM: comment
COND: conditional
DCT: dialogical connector
EXP: expressive
F0: fundamental frequency
INP: incipit
INT: locutive introducer
NEG: negation
NP: noun phrase
PAR: parenthesis
PHA: phatic
PP: prepositional phrase
PRF: perfective
PST: past
Q: question
SCA: *scansione* (cf. Cresti, 2010)
SFP: sentence final particle
TOP: topic

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