

THE SENTENCE INITIAL DISCOURSE MARKER *Nà* 那 AND ITS CORRELATION WITH SENTENCE FINAL PARTICLES

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The present study is based on the working hypothesis that the discourse marker (DM) *nà* 那 cannot freely co-occur with any sentence final particle (SFP). Indeed, the corpus-based analysis conducted, substantiated by means of statistical analyses, display the existence of a strong correlation between the DM *na* and *ne* 呢 and *a* 啊, rather than other SFPs. Within a generative approach, it is assumed that the DM *na* is located in Spec,RespP (thus accounting for its sentence-initial position), whereas the SFPs *ne* and *a* are heads of RespP and Ground_{Speaker}P respectively. Furthermore, RespP and Ground_{Speaker}P are assumed to be head-initial phrases, and movement of CP to their Spec is proposed, in order to comply with specific prosodical requirements. Finally, data seem to support the proposal that multiple RespPs exist, accounting for the possibility to give the Addressee more than one instruction to interpret Speaker's utterances.

Keywords: Discourse Marker, Sentence Final Particle, Corpus Analysis, Prosody

1. *Discourse Markers and Sentence Final Particles: Background for the Analysis*

1.1 Discourse Markers

Discourse markers (DMs) can be described as “sequentially dependent elements which bracket units of talk” (Schiffrin 1987, 31) that signals the relationship between two succeeding discourse segments (Fraser 1999). One of the main properties of DMs is their multifunctionality, and the range of functions that they can perform depends on the communicative context in which they occur (among others, Bazzanella 2016; Fischer 2006; Schiffrin 1987).

DMs play an important interactional role (between different speakers), since they can be used by the Speaker to guide the Addressee toward a specific interpretation of the following proposition. Additionally, DMs can be used to show Speaker's attitude toward the Addressee and/or the content of the discourse (Fischer 2006).

From a syntactic point of view, DMs are “detachable from a sentence” and commonly used in sentence-initial position (Schiffrin 1987, 328). In this regards, recent studies argue that DMs can be either heads of specific functional phrases (FPs) above the clause (Osa-

Gómez 2012) or independent constituents in the Specifier position (Spec)¹ of such FPs (Badan 2020).

Indeed, according to Generative tenets, clause universally consists of three major phrases (from Chomsky 1981 onwards). Namely, the Verb Phrase (VP), the Inflectional Phrase (IP), usually referred to as TP in the English literature (from Tense Phrase), and the Complementizer Phrase (CP, also C-Domain), hierarchically organized as follows²:

$$(1) \quad [_{CP} [_{IP} [_{VP}]]]$$

However, in different studies it has been argued for the existence of a supplementary layer above the CP (namely, SpeechActP) in which the Speaker can encode (i) how they relate to the utterance, (ii) how they believe the Addressee relates to the utterance and (iii) what the Speaker wants the Addressee to do with the utterance (among others, Heim et al. 2014; Lam 2014; Thoma 2016; Wiltschko 2017).

Thus, the following hierarchy is assumed:

$$(2) \quad [_{SpeechActP} [_{CP} [_{IP} [_{VP}]]]]$$

From a communicative viewpoint, in Heim et al. (2014) it is argued for the existence of two different functions, thus splitting the SpeechActP above CP into two layers, that is to say the *grounding layer* (GroundP) and the *responding layer* (RespP). The former is dedicated to the Speaker's attitude towards the proposition, whereas the latter (structurally higher than the former) is dedicated to what the Speaker wants the Addressee to do with the utterance. Nevertheless, in Lam (2014), Thoma (2016) and Wiltschko (2017) a further division of the GroundP in Ground_{Addressee}P and Ground_{Speaker}P is assumed. Specifically, Ground_{Speaker}P is dedicated to encoding the Speaker's attitude towards the utterance, while in Ground_{Addressee}P what is encoded is what the speaker believes to be the Addressee's attitude toward the proposition:

$$(3) \quad [_{SpeechActP} \rightarrow [_{RespP} [_{GroundAddresseeP} [_{GroundSpeakerP}]]]]$$

As mentioned above, DMs are analyzed as pragmatic constituents that can be located in a specific node in the functional domain above CP (i.e., RespP, Ground_{Addressee}P or Ground_{Speaker}P). As an example, in Osa-Gómez (2012) evidence is provided for an analysis of the Spanish sentence-final DM *no* (no) as the head of Ground_{Addressee}P. Additionally, the author assumes the movement of the whole CP to Spec,Ground_{Addressee}P for prosodic requirements in order to explain the linear order with *no* in sentence final position, following Munaro

¹ Each phrase is assumed to have the following structure, in which X° correspond to the relevant head: [_{XP} Spec(ifier) [_{X'} X° Compl(ement)]]].

² According to standard assumptions, the VP is the layer in which theta assignment takes place; the IP/TP layer is responsible for the licensing of formal features such as case and agreement; the CP is the layer where illocutionary force is encoded and discourse-related categories (such as topic or focus) are hosted, as well as different operator-like elements (wh-constituents, relative pronouns, quantifiers, etc.; cf. Rizzi 1997).

and Poletto (2002). Hence, the example in (4) can be assumed to have the following structure in (5):

- (4) *Adriana tiene un gato, no?*
 Adriana has a cat no
 ‘Adriana has a cat, no?’
- (5) [_{GroundAddresseeP} [_{CP} *Adriana tiene un gato*] [_{GroundAddressee’no} t_{CP}]]

(Adapted from Osa-Gómez 2012, 217-218)

Additionally, other types of DMs can be analyzed as pragmatic constituents sitting in the Spec of one of the functional phrases above CP. This is the case of the Italian DM *guarda te* (lit. look you) that is analyzed as an XP in the Spec of SpeechActP (split according to the specific function of the DM in the context) in Badan (2020).

Specifically, in Badan (2020) it is argued that *guarda te* can express Speaker’s surprise or Speaker’s commitment toward a situation that is evident to them, and it can sit in different position within a split SpeechActP. The former is thus located in the Spec of the Eval(uative) Phrase, in the Speaker field, whereas the latter is located in the Spec of the Evid(ential) Phrase, in the Addressee field. Even though terminology differs, EvalP and EvidP seem to coincide (or at least share some properties) with Ground_{Speaker}P and Ground_{Addressee}P respectively.

Therefore, DMs can be described as varied group of linguistic devices that play an important interactional role in communication. They can be analyzed either as heads or XPs in the functional domain above the CP.

1.2 Sentence Final Particles

Sentence final particles (SFPs) in Mandarin Chinese (MC) represent a class of constituents whose categorial status is still debated. For instance, in works like Biberauer et al. (2007, 2008, 2014) SFPs are not considered as part of the sentence structure and, in turn, have no syntactic category.

Conversely, recent works provide evidence for an analysis of SFPs as elements that play an important role in syntax (among others, Li 2006; Pan 2014, 2017, 2019; Paul 2005, 2014; Paul, Pan 2017). In particular, Paul and Pan (2017), based on Rizzi’s (1997) analysis of CP, assume the existence of an AttitudeP (within the C-domain) that can be iterated and whose head node is dedicated to host SFPs. Thus, SFPs are analyzed as complementizers.

However, as it is argued in Xu (2022), the assumption of (only) one specific phrase and, in turn, the analysis of SFPs as complementizers, cannot explain why SFPs appear in a fixed order when more than one is present within the same sentence, as it is shown in the following example:

- (6) a. 三十年前还没有鼠标呢吧哈?
Sānshí nián qián hái méi yǒu shǔbiāo ne ba, hā?
 thirty year before still NEG have mouse ne ba ha
 ‘Thirty years ago, very probably there didn’t even exist anything like a computer mouse, eh?’
- (7) b. *三十年前还没有鼠标呢哈，吧?
**Sānshí nián qián hái méi yǒu shǔbiāo ne hā, ba?*
 thirty year before still NEG have mouse ne ha ba

(Adapted from Xu 2022, 39)

Building on Wiltschko (2017), in Xu (2022) evidence is provided for an analysis of SFPs as heads of the specific nodes above CP (i.e., Ground_{Speaker} P, Ground_{Addressee} P or RespP) according to their contextual function. Hence, SFPs are labelled as interactional particles in Xu (2022), located in the head of specific functional phrases with a head-final structure³, thus explaining their sentence-final position in MC.

It should be noticed that the assumption that SFPs are the head of specific functional phrases above the CP is not completely novel. As a matter of fact, in Wiltschko and Heim (2016) it is argued that the English “eh”, “right” and “huh” in a sentence like (8) below are associated with the *grounding layer* (specifically, “eh” with Ground_{Addressee} P, while “right” and “huh” with Ground_{Speaker} P):

- (8) You have a new dog, {eh/huh/right}?

(Wiltschko, Heim 2016, 309)

Another central aspect for the present analysis is that SFP cannot be freely associated to all types of propositional contexts. In fact, the “choice” of the SFPs depends on the illocutionary force that the speaker wants to convey to the whole proposition (Wang 2021). For instance, according to Zhang (2012) a sentence like (9b) is not felicitous with the co-presence of an implicative adverb and *ba* 吧, a SFP that suggests an “imperative” reading of the relevant clause:

- (9) a. Customer: 我觉得这件裙子对我不合适。
Wǒ juéde zhè jiàn qúnzi duì wǒ bù héshì.
 1SG think this CL skirt to 1SG NEG suitable
- b. Sale assistant: 我并不同意。*你应该穿穿看吧。
*Wǒ bìng bù tóngyì. *Nǐ yīnggāi chuān-chuān kàn ba.*
 1SG actually NEG agree 2SG should wear-wear see BA
- a. Customer: I don’t think this skirt suits me.
 b. Sale assistant: I disagree. *I think you should try it on *ba*.

³ In head-final phrases, the head follows its complement as it is shown in the following structure: [_{XP} Spec [_{X'} Compl X^o]].

This is a key aspect for the corpus-based analysis that will be conducted in the present paper. In point of fact, we should expect specific co-occurrences of certain DMs with specific SFPs according to their functions, since we assume that both DMs and SFPs share some discourse-related properties. Furthermore, they both should be generated within the functional area above CP, dedicated to the pragmatic/interactional sphere of the language, due to their similarities from a discourse point of view. Specifically, the present paper will focus on the DM *na* 那 and the SFPs that co-occur with it in MC.

2. *Na* as Discourse Marker

In Chinese *na* can be used with its lexical meaning, that is to say, as a deictic or as a demonstrative expression, corresponding to the English “that” (Huang 1999). However, according to Wu and Yin (2012) *na* is more commonly used as DM (than a deictic; translatable as “so” or “then”) in natural language conversations and, in line with the claims made by other scholars, it has a wide range of functions in different contexts, such as discourse, pragmatic and situated functions.

Na also plays an important role in topic management. Indeed, it can be used to mark (conversational) topic succession and topic change. However, according to Biq (1990, 187), in both cases its function is “anchored at the interactional dimension rather than the textual/ideational dimension”. Hence, it can be argued that in any case the function of *na* is strictly connected with the interaction between two or more speakers.

Going into further detail, in Miracle (1991) the topic related functions of *na* have been classified on the base of the units of talk it connects. According to the author, *na* bonds two utterances that are topically related. Furthermore, *na* is also related to conversation topics in term of Speaker attitude: when occurring in initial position, or in the middle of a turn, *na* signals the Speaker’s attitude toward the discourse content (Zheng, Luo 2013). In this respect, in Li and Ran (2020a) an analysis of approximately 15 hours of clinical interviews between 4 psychotherapists and 30 right-hemisphere-damaged (RHD) patients⁴ has been conducted. The results of the analysis allowed the authors to conclude that the DM *na* is used to draw the Addressee’s attention to the upcoming talk.

To sum up, the DM *na* can be used (i) to establish the connection and thus the relevance between the following unit of talk to a prior unit of talk (Biq 1988; Miracle 1991) or (ii) to draw the Addressee’s attention to the upcoming talk. In both cases, what follows the DM *na* is perceived by the Speaker as a unit of talk to which the Addressee has to pay attention (Li, Ran 2020a).

In this perspective, the present analysis aims to investigate which SFPs mostly co-occur with the DMs *na* in order to check whether some parallelism between DMs and SFPs exists and, if this is the case, whether the functions of the relevant SFPs are in line with

⁴ According to Li and Ran (2020b), RHD patients show “topic divergence” in their talking. That is to say, they usually produce utterances disparate from an ongoing topic.

those of *na* as DM. Thus, our working hypothesis is that we should expect the DM *na* to co-occur with SFPs that comply with its functions.

3. The Corpus-Based Analysis

In order to explore the working hypothesis elaborated above, a corpus-based analysis has been conducted. Specifically, seven telephone conversations between 14 MC native speakers (roughly seven hours) have been randomly selected from the CallFriend corpus (2018). The selected sample has been analyzed through the AntConc Software (ver. 3.5.9 for Macintosh) to find all the occurrences of *na* and its co-occurrences with any SFPs in the corpus. All the (co-)occurrences have been manually checked in order to include in the analysis only cases in which *na* is used as a DM (rather than with its lexical meanings).

In this respect, cases like (10a) and (10b), in which *na* is used as a deictic and as a demonstrative expression respectively, have been tagged as “non-DM”. On the other hand, cases like the one in example (11), in which *na* was used to introduce a new sentence and, more specifically, detachable from the utterance, have been tagged as “DM”:

- (10) a. 那儿有没有糖葫芦儿啊?
Nàr yǒu méi yǒu táng hú lú er a?
 there have NEG have tanghulu A
 Do they have *tanghulu* there?⁵
- b. 那种小包子我觉得实在太好吃了。
Nà zhǒng xiǎo bāozi wǒ juéde shí zài tài hǎo-chī le.
 that CL small baozi I think truly too good-eat LE
 That type of small *baози*, I think is really good⁶.
- (11) 那我住在你们家也不行啊。
Nà wǒ zhù-zài nǐmen jiā yě bù xíng a.
 so I live-at your house also NEG alright A
 So if I live in your house is not good too.

The second step was to check for any statistical significance within all the possible collocations (*na* + SFPs). Following Stefanowitsch’s (2020) analyses, three statistical tests have been performed, namely, Chi-squared, Log likelihood and Fisher’s Exact Test. All the statistical analyses have been conducted using the “Lancaster Stats Tool Online”.

Finally, in order to provide evidence for the hypothesis put forward in the following sections, a prosodic analysis has been conducted with the help of the PRAAT software (ver. 6.1.53 for Macintosh).

⁵ A *tánghúlu* is a Northern China snack consisting of sugar-coated fruit.

⁶ A *bāozi* is a steamed filled bun.

3.1 Data Analysis: a General Overview

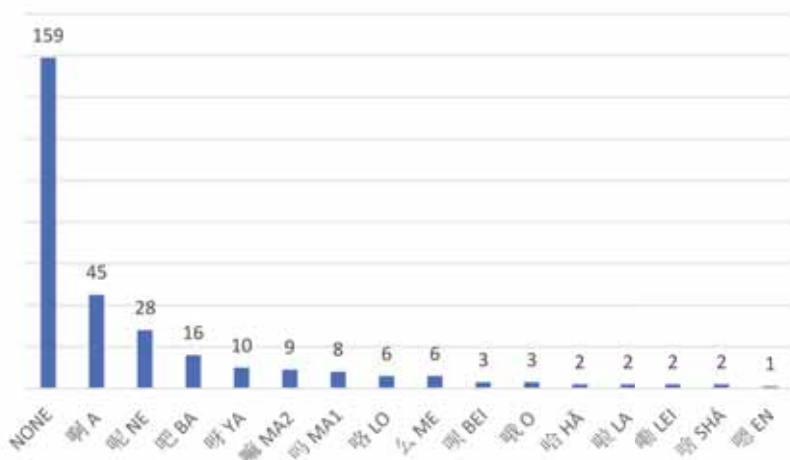
In the sample of data extracted for the present analysis there are a total of 1370 occurrences of *na*. Contrary to the claim stated in Wu and Yin (2012), *na* is mostly used with its lexical meaning (i.e., deictic/pronoun) than as DM in the sample selected for the present analysis, since there are only 370 occurrences of *na* as DM, as it is shown in Table 1 below:

Table 1 - Total occurrences of *na*

Total occurrences of <i>na</i>	1370
<i>Na</i> as pronoun/deictic	1000
<i>Na</i> as discourse marker	370

As can be seen from Figure 1 below, in most cases *na* does not co-occur with SFPs (159 cases out of 370). However, the range of SFPs that co-occur with the DM *na* seems to be very assorted, namely, *a* 啊 (42)⁷, *ba* (16), *bei* 呗 (3), *o* 哦 (3), *lo* 咯 (6), *hā* 哈 (2), *la* 啦 (2), *lei* 嘞 (2), *ma1* 吗 (8), *ma2* 嘛 (9), *me* 么 (6), *ne* 呢 (28), *en* 嗯 (1), *shá* 啥 (2), *ya* 呀 (10):

Figure 1 - Co-occurrences of *na* and sentence final particles



Among the most frequent SFPs co-occurring with the DM *na* we find *a* and *ne* respectively. However, statistical analyses seem to show marginal different results (see Table 2 below). In fact, a corpus-based analysis should also take into consideration both the sample size and the number of occurrences for each token under analysis. This means that when a certain SFP occurs more than another SFP in general (i.e., *a* = 45 vs *ne* = 28), the probability that it co-occurs with a certain word (i.e., the DM *na*) is higher, even though it is not the strongest collocation. In this respect, statistical analyses can come to our aid, showing what types of co-occurrences can be considered a strong collocation.

⁷ Number of cases in brackets.

According to Stefanowitsch (2020), the best association measures available for doing collocation research are Fisher's Exact Test and Log likelihood. Chi-squared can be a useful association measure if the corpus size is not large. In our case, it has been decided to apply all the tests above mentioned since the sample size is 24535 tokens.

The relevant data are illustrated in Table 2 below:

Table 2 - *Co-occurrences of na and SFP*⁸

	<i>Na +</i>	X^2	<i>Na +</i>	<i>G</i>	<i>Na +</i>	<i>Exact Test</i>
1	NE	215.74	NE	80.59	NE	2.91E-19
2	A	86.94	A	53.85	A	1.73E-13
3	LO	82.25	GE	23.29	GE	1.60E-06
4	BEI	54.68	BA	15.23	BA	7.11E-05
5	BA	23.47	BAI	13.18	BEI	3.77E-04
6	YA	18.29	YA	11.19	YA	6.35E-04
7	MA2	17.79	MA2	10.65	MA2	8.59E-04
8	O	12.45	MA1	7.4	MA1	4.88E-03
9	MA1	11.39	O	5.88	O	1.40E-02
10	LEI	9	LEI	4.12	LEI	4.00E-02
11	HĀ	2.6	HĀ	1.71	HĀ	1.48E-01
12	LA	1.63	LA	1.18	LA	2.05E-01

Considering both the number of occurrences and the results of the three statistical analyses performed, it can be argued that the strongest collocations are between the DM *na* and the SFPs *ne* and *a* respectively. Indeed, looking at the data regarding the Fisher's Exact Test alone, which is considered to be the best test in this case by Stefanowitsch (2020), the p-values⁹ of *lo* and the other SFPs drastically increase, indicating a weaker correlation/collocation. The relevant data are also illustrated in Figure 2 below:

⁸ In Table 2, data in the column " X^2 " are the relevant values for Chi-square test, data in the column "*G*" are the relevant values for the Log Likelihood test and data in the "*Exact Test*" columns are the p-values of the Fisher's Exact Test.

⁹ It should be noticed that a lower p-value indicates a stronger collocation.

Figure 2 - Co-occurrences of *na* and sentence final particles – Fisher's Exact Test's *p*-values

The relevant analysis regarding the strong collocations of the DM *na* and the SFPs *ne* and *a* will be illustrated in the following two sections.

3.2 Data Analysis: “*Na* + *Ne*” Collocation

The SFP *ne* has been widely investigated in the past literature. Different scholars have provided evidence for the various functions that this specific SFP can display (among others, Kang 1998; Li 2001; Liu 2004; Qi 2002; Wu 2005). However, according to Chu (2009, 295), the core properties of *ne* are ultimately two, namely, (i) “Look back for contrast” and (ii) “Demand to continue”.

The present corpus analysis seems to be in line with these claims, since all the occurrences of *ne* in the present sample appear to have this double function. Consider example (12) below. Speaker A and B are talking about a friend of them (whose name in the corpus is XXX for privacy reasons). In Turn 3, Speaker A makes an assertion regarding XXX followed by the SFP *ne*. As a response, Speaker B confirms what Speaker A is saying. Similarly, Speaker B is asking for confirmation in Turn 6: he introduces a claim with the DM *na* and concludes his utterance with the SFP *ne*. Even though such a claim would not (generally) require an answer, Speaker A replies to Speaker B’s statement confirming the previous claim in Turn 7:

- (12) Turn 1 Speaker A: 我我我跟你说话呀，是这样儿，她是，她需要你的时候，她不需要你的时候，你就别打搅。
Wǒ wǒ wǒ gēn nǐ shuō yā, shì zhèyàngr, tā shì, tā xūyào nǐ de shíhòu, tā bù xūyào nǐ de shíhòu, nǐ jiù bié dǎjiǎo.
 I, I, I tell you, it is like this, she’s like, when she needs you, when she doesn’t need you, you just can’t disturb her.

- Turn 2 Speaker B: 那倒也是。
Nà dào yě shì.
 That's (also) true.
- Turn 3 Speaker A: 因为她是以她为中心呢。
Yīnwèi tā shì yǐ tā wéi zhōngxīn ne.
 Because she thinks she is important *ne*.
- Turn 4 Speaker B: 对对。
Duì duì.
 Yes, yes.
- Turn 5 Speaker A: 所以我就是说，我有什么消息呀，我给你通一通。
Suǒyǐ wǒ jiù shì shuō, wǒ yǒu shénme xiāoxi ya, wǒ gěi nǐ tōng yī tōng.
 So, that's what I mean, I will tell you anything I know.
- Turn 6 Speaker B: 那以她为中心的人多着呢。
Nà yǐ tā wéi zhōngxīn de rén duō zhe ne.
 So the people that think she is important are many *ne*.
- Turn 7 Speaker A: 哎，对，就是这么回事儿。
Āi, duì, jiùshì zhème huìshìr.
 Eh, right, that's how it is.

Thus, it can be argued that Turn 6 can be interpreted as follow:

- (13) Speaker B:
 Instruction 1: NA = Connect my utterance to what we've been saying.
 Instruction 2: NE = Look at what has been said and give me feedback.
 → Speaker A: Answer according to the previous co-text.

According to this analysis, it can be argued that both the DM *na* and the SFP *ne* play an important role from a discourse viewpoint, since in both cases they serve as linguistic devices for the Speaker to instruct the Addressee on what to do with the utterance (i.e., connect it with what has been said, look back and give me a feedback). Thus, according to Heim et al. (2014) proposal, they should be both located in RespP since they give instructions to the Addressee.

However, this analysis seems to carry some problem with it, since only one RespP has been assumed at present (to the best of our knowledge). The fact that only one position (of RespP) is postulated implies the assumption that the DM *na* is a pragmatic constituent on its own which will be referred to as a generic XP in the present analysis. Following Cardinaletti (2011, 2015) and Badan's (2020) analyses for the Italian DMs *guarda* (look) and *guarda te* respectively, we propose that *na* is an XP sitting in the Spec of a node within the functional domain above CP. Specifically, it can be assumed that the DM *na* sits in Spec,RespP, thus accounting for its sentence-initial position. On the other hand, the SFP

ne can be assumed to be the head of RespP, in line with Xu's (2020) analysis accounting for SFPs as heads of RespP or GroundP.

As for Xu's (2020) proposal, it should be noticed that the author builds his analysis on Lu (1990), considering *ne* as a SFP that indicates a sense of strong belief of the speaker. Thus, *ne* is located in the head of Ground_{Speaker}P in Xu (2020). Conversely, as stated above, the present investigation follows Chu's (2009) analysis, accounting for *ne* as an indicator for "look back" and "demand to continue". The data of our sample are indeed in line with this proposal. Thus, we assume *ne* to be in the head of RespP which is, according to Xu (2022), a head-finale phrase. This would account for the order of the SFP at the rightmost edge of the sentence and the initial position of the DM *na*, as it is illustrated in the structure in (14) regarding Line 6 in example (12) above:

- (14) [_{RespP} [XP *Na*] [_{Resp'} [_{GroundAddresseeP} [_{GroundAddressee'} [_{GroundSpeakerP} [_{GroundSpeaker'} [_{CP} *yī tǎ wéi zhōngxīn de rén duō zhe*]]]]]]] *ne*]].

However, this analysis seems to be problematic. First, we should assume a mixed system for MC, with both head-initial and head-final phrases. Even though this assumption is widely adopted, recent works argue for movement of the TP to Spec,CP (more specifically, Spec,AttitudeP) for SFPs (see Pan 2022 for further discussion). Additionally, if all DMs behave similarly (that is, they are XPs in the Spec of an FP), we should not expect more than three DMs in a sentence, since only three positions are available within the functional domain above CP (i.e., RespP, Ground_{Addressee}P and Ground_{Speaker}P). However, let us consider the following example from Italian in which we have a cluster of 4 possible DMs (see Conti and Carella in this special section for the analysis of DMs clusters):

- (15) [FP [*Perché*] [*poi*] [*dico*] [*veramente*] [*ma*] [CP *che stiamo a curare*]]
 Because then say.1SG really but what be.1PL to heal
 [FP Because, then, I mean, really, but [CP what are we healing?]]

In order to account for the possibility to have more than three DMs in unscripted oral conversation, we assume that the nodes above CP can be freely iterated. In the present analysis we thus propose that RespP can be iterated in MC, if more than one "instruction" is given by the Speaker to the Addressee, like in the case of the presence of both the DM *na* and the SFP *ne* in the same utterance¹⁰. It should be noticed that this proposal does not come out of the blue. Similar assumptions were initially made also for a split CP (see Rizzi 1997). Furthermore, in Cinque (1999) evidence is provided for the existence of a split IP, which includes different functional phrases hierarchically organized. Thus, following Heim et al. (2014), we argue for the possibility to have a split functional domain above the CP, in which the same function can be "realized" through different linguistic devices.

¹⁰ The possibility to iterate the two GroundPs as well is not excluded. However, this question is left open for future research.

Finally, in order to account for the final position of the SFPs, we assume the movement of the relevant CP to the Spec of the lower RespP node which, according to our analysis, should be the phrase whose head is *ne*, as it is illustrated in the following structure:

$$(16) \begin{array}{c} \left[\begin{array}{c} \text{RespP1} \\ \text{XP} \end{array} \text{ Nā} \right] \left[\begin{array}{c} \text{Resp1} \\ \text{GroundAddresseeP} \end{array} \right] \left[\begin{array}{c} \text{RespP2} \\ \text{GroundAddressee}' \end{array} \right] \left[\begin{array}{c} \text{CP} \\ \text{GroundSpeakerP} \end{array} \right] \text{ yǐ tā wéi zhōngxīn de rén duō zhe} \left[\begin{array}{c} \text{Resp2}' \\ \text{GroundSpeaker}' \end{array} \right] \text{ ne} \\ \left[\begin{array}{c} \text{GroundAddresseeP} \\ \text{GroundAddressee}' \end{array} \right] \left[\begin{array}{c} \text{GroundSpeakerP} \\ \text{GroundSpeaker}' \end{array} \right] \left[\begin{array}{c} \text{CP} \\ \text{CP} \end{array} \right] \end{array}$$

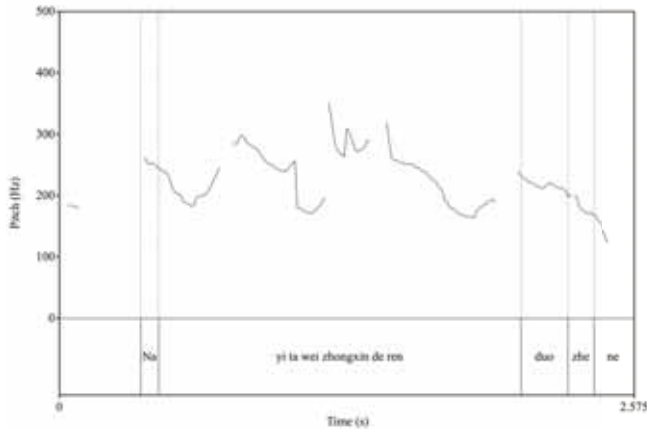
In Osa-Gómez (2012) it is argued that the movement of the relevant CP in (4) and (5) above (reproposed in (17) and (18) for convenience) is due to prosodical requirements, namely, for the DM to form a prosodic unit with its anchor¹¹:

- (17) *Adriana tiene un gato, no?*
 Adriana has a cat no
 ‘Adriana has a cat, no?’

$$(18) \left[\begin{array}{c} \text{GroundAddresseeP} \\ \text{CP} \end{array} \text{ Adriana tiene un gato} \right] \left[\begin{array}{c} \text{GroundAddressee}' \\ \text{CP} \end{array} \text{ no} \right]$$

Following this analysis, we should expect the CP in *yi ta wei zhongxin de ren duo zhe* in (12) Line 3 to form a prosodic unit with the SFP *ne*. As shown in Figure 3 below, *zhe* seems to be phonetically incorporated with *ne*, since the pitch line is continuous:

Figure 3 - Prosody of (12) Turn 6



Further evidence is proposed through the following comparison of examples (19) and (20) and their PRAAT images (Figure 4 and 5 respectively).

It should be noticed that these two examples proposed are two utterances within the same turn. In both cases, they end with the noun *shiqing* 事情 (matter), differing only from the presence/absence of the SFP *ne*. As is show, in sentence (19), without the SFP *ne*, the pitch line of *qing* rises.

¹¹ The anchor can be defined as the linguistic unit to which an appended element (i.e., SFPs) is attached.

On the other hand, in sentence (20) not only is *qing* realized with a falling accent, but it also forms a prosodic unit with the SFP *ne*, being the pitch line continuous:

- (19) 说是其中一事情。
Shuō shì qízhōng yī jiàn shìqìng.
 say be among them one CL matter
 They say that among them there is one matter.
- (20) 其中一件什么事情呢...
Qízhōng yī jiàn shénme shìqìng ne...
 among them one CL what matter NE
 Among them there is what such matter..

Figure 4 - Shiqing *without ne*

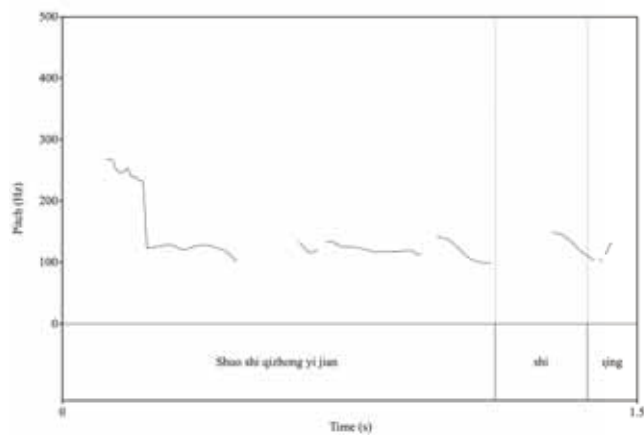
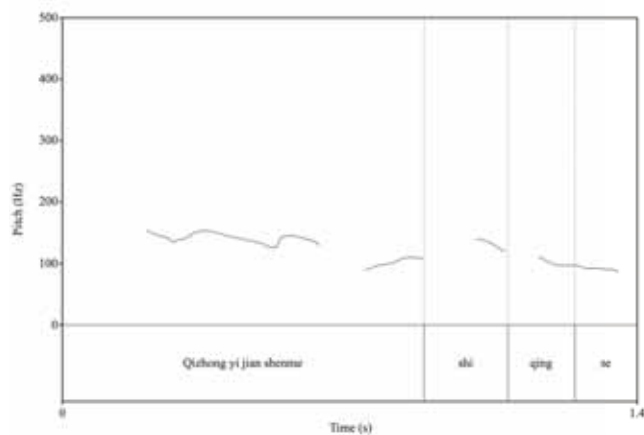


Figure 5 - Shiqing *with ne*



Thus, the evidence provided so far seems to account for the assumption of movement for the relevant CP to the Spec of the lower RespP, in line with Pan (2022).

Let us now compare these data with those regarding the collocation of the DM *na* and the SFP *a*.

3.3 Data Analysis: “*Na* + *A*” Collocation

In the present study we follow Wang’s (2021) analysis, according to which the SFP *a* indicates how the common ground is organized between the Speaker and the Addressee. Specifically, from an intersubjectivity point of view, *a* is used at the end of an utterance to indicate its importance, that is to say, “such information the listener should be aware of” (Wang 2021, 149).

Entering in a more detailed analysis, Wang’s (2021) investigation seems to show that this “importance” seems to be connected with the Speaker’s attitude. As a matter of fact, the author argues that the SFP *a* is “associated with particular discourse relations such as Explanation, Elaboration and Contrast” (Wang 2021, 150). Therefore, the Addressee understands the reason why the relevant utterance is “important” through the indication of the Speaker’s attitude.

Building on Xu (2022) and Heim et al. (2014), in the present paper it is thus argued that the SFP *a* is the head of Ground_{Speaker} P, since it is tightly connected with the Speaker attitude. This function seems to be in line with the second function of the DM *na*, namely, to draw Addressee’s attention to the upcoming talk (cf. Li, Ran 2020a). Additionally, it should be noticed that in the example proposed in Li and Ran (2020a) for this specific function, the SFP *a* is also present.

As evidence for our proposal, consider example (21) below, in which two friends are talking about the price of an airplane ticket. Speaker A is telling Speaker B that his friend received a good offer, in Turn 1, and Speaker B comments saying “it is very cheap then...” in Turn 12:

- (21) Turn 1 Speaker A: 那人给她一个offer, 一开始是六百七, 也是东航的。后来不干了。
Nà rén gěi tā yī gè offer, yī kāishǐ shì liùbǎiqī, yě shì Dōngháng de. Hòulái bù gàn le.
 That person gave her an offer, at the beginning it was \$670, China Eastern Airline as well. Then was nothing to do.
- Turn 2 Speaker B: 嗯。
En.
 M-hm.
- Turn 3 Speaker A: 涨到了七百多。哈哈, 就成了你差不多的价了。
Zhǎngdào le qībǎiduō. Hāhā, jiù chéng le nǐ chàbùduō de jià le.
 It rised up to more than \$700. Eheh, it became almost as expensive as yours.

- Turn 4 Speaker B: 嗯。
En.
M-hm.
- Turn 5 Speaker A: 你那是在中国人那agent订的还是在哪agent订的?
Nǐ nà shì zài Zhōngguó rén nà agent dìng de háishi zài nǎ agent dìng de?
The agent you've booked with is Chinese, or in which agency did you book?
- Turn 6 Speaker B: 有一个中国人。我不知。反正是华裔吧办了一个旅行社。
Yǒu yī gè Zhōngguó rén. Wǒ bù zhī. Fǎnzhèng shì huáyì ba bàn le yī gè lǚxíng shè.
There is a Chinese person. I don't know. Anyway, who manages the agency has Chinese origins.
- Turn 7 Speaker A: 叫什么旅行社啊?
jiào shénme lǚxíng shè a?
What is the name of the agency?
- Turn 8 Speaker B: 我看看。
Wǒ kànkàn.
Let me see.
- Turn 9 Speaker A: 叫个什么Coast, 在佛罗里达的一个。
jiào gè shénme Coast, zài Fólóulǐdá de yīgè.
The name is Coast, it is in Florida.
- Turn 10 Speaker B: Okay. 不太知道。
Okay. Bù tài zhīdào.
Okay. I don't really know it.
- Turn 11 Speaker A: 不知道吧。
Bù zhīdào ba.
Don't know it eh.
- Turn 12 Speaker B: 那很便宜啊, 他妈的。
Nà hěn piányi a, tā mā de.
So it is very cheap a, damn it.
- Turn 13 Speaker A: 那个我问过那个六福的
Nà gè wǒ wèn guò nà gè Liúfú de.
That, I asked for the Gateway Travel & Tour's.

Importantly, the utterance in Turn 12 is linked to the utterance in Turn 1, in which Speaker A directly refer to the offer. Thus, we argue that the DM *na* is used to draw the Addressee's attention to the following utterance, in order to change the topic back to the original one, namely the "offer". This seems to be in line with Li and Ran (2020a), since the authors argue that the DM *na* is often used by psychotherapist in response to RHD patients' topical divergence in clinical interviews. That is to say, *na* is used to draw Addressee's attention back to a specific topic when the other participant diverges from it, like in the example

(21) above in which the relevant topic shifts from “Offer” to “Agency” and, with *na*, back to “Offer”.

Furthermore, the use of the SFP *a* indicates the attitude of the Speaker toward the discourse content. In this case, it can be assumed that Speaker B is trying to convey a contrastive attitude with respect to the difference between the original offer (\$670) and the current price of the ticket (more than \$700).

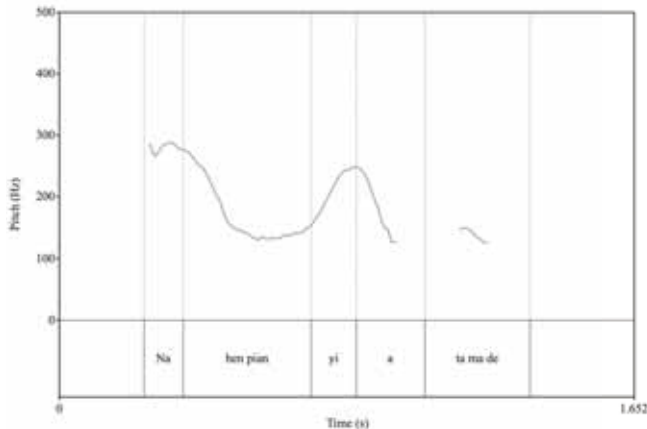
Hence, the SFP *a* does not provide apposite instructions to the Addressee on how to properly answer to the Speaker. Conversely, it is used by the Speaker to convey his own attitude toward the discourse content, helping the Addressee to better understand why the relevant utterance is “important” and thus why he has to pay attention to it.

Therefore, considering the analysis conducted above, we argue that the DM *na* is an XP in Spec,RespP also in this case, since it requests the Addressee to pay attention to the following utterance. On the other hand, the SFP *a* conveys Speaker’s attitude and it is realized as the head of Ground_{Speaker}P. Finally, we argue that the whole CP in Turn 12 of example (21) move to the Spec,Ground_{Speaker}P for prosodical requirements, as it is illustrated in the following structure:

$$(22) \begin{matrix} [_{\text{RespP1}} [_{\text{XP}} \text{Ná}] [_{\text{Resp1}'} [_{\text{RespP2}} [_{\text{Resp2}'} [_{\text{GroundAddresseeP}} [_{\text{GroundAddressee}'} [_{\text{GroundSpeakerP}} [_{\text{CP}} \text{hěn} \\ \text{piányi}] [_{\text{GroundSpeaker}} \text{a } \tau_{\text{CP}}] \end{matrix}$$

Also in this case a prosodical analysis is provided, in order to account for the movement of the whole CP in Spec,Ground_{Speaker}P. As shown in the following Figure, *piányi* and *a* configure as one single prosodic unit:

Figure 6 - Prosody of (21) Turn 12



Further evidence is also provided below. As it can be seen in example (23), the predicate *hǎo piányi* 好便宜 (very cheap) in Turn 1 is followed by the particle *de* (which is not an SFP), whereas the one in Turn 2 is followed by the SFP *a*:

- (23) Turn 1 Speaker A: 啊好便宜的, 才一百八十九啊。
 A hǎo piányi de, cái yībǎibāshíjiǔ a.
 Turn 2 Speaker B: 一百八十九啊, 好便宜啊, 我也买不起。
 Yībǎibāshíjiǔ a, hǎo piányi a, wǒ yě mǎi bù qǐ a.
 Turn 1 Speaker A: Oh, it is very cheap, only \$189!
 Turn 2 Speaker B: \$189! It is very cheap a, I can't buy it (at that price).

If the analysis so far presented is on the right track, we should thus expect *hao pianyi* and *a* in Turn 2 to configure as one prosodic unit. The relevant PRAAT image seems to validate this hypothesis, since the pitch line between *yi* and *a* is continuous, as can be seen in Figure 8.

On the contrary, the particle *de* does not blend with the preceding *pianyi*, since a short break followed by a rise of the pitch line is attested:

Figure 7 - Prosody of *pianyi de*

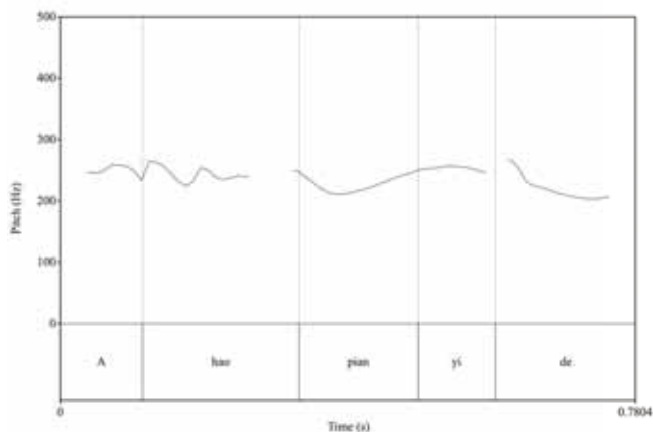
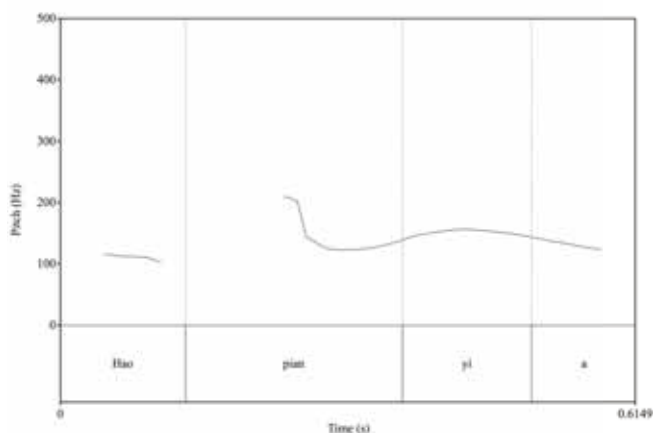


Figure 8 - Prosody of *pianyi a*



Furthermore, it should be noticed that when *a* is realized in initial position, the relevant sentence does not form a prosodic unit with it. As it is shown in Figure 7 above, pitch drops at the end of *a* and then rise again with the pronunciation of *hao* in (23) Turn 1.

Thus, it can be argued that the prosodic analysis conducted substantiate the movement of the relevant CP to the Spec of the phrase hosting the SFP, namely, Spec,Ground_{Speaker} P.

4. Conclusion and Final Remarks

The results of corpus-based analysis conducted show that both DMs and SFPs play an important interactional role in unscripted oral conversations. Thus, the initial research hypothesis seems to be correct: being both pragmatic constituents, the co-occurrence of DMs and SFPs is not completely free, and it is restricted according to their discourse functions.

Specifically, it has been shown through the mean of statistical analysis the existence of a strong correlation between the DM *na* and specific SFPs, such as *ne* and *a*. The results are in line with previous literature.

Two main claims have been made, namely, the DM *na* is an XP in Spec,RespP (thus accounting for its sentence initial position), whereas the SFPs *ne* and *a* are heads of RespP and Ground_{Speaker} P respectively.

Furthermore, RespP and Ground_{Speaker} P are assumed to be head-initial phrases. Hence, in order to account for their sentence-final position, CP movement to their Spec is assumed so as to comply with specific prosodic requirements. In this respect, the prosodical analysis conducted shows that the relevant utterance forms a prosodic unit with the following SFP.

In line with previous analyses investigating (and assuming) the existence of multiple GroundPs (i.e., Ground_{Speaker} P and Ground_{Addressee} P), multiple RespPs are also proposed in the present study, accounting for the possibility to give the Addressee more than one instruction in order to correctly interpret Speaker's utterances.

This analysis opens new path of research. For instance, future studies should explore if similar restrictions also exist for other DMs and SFPs in MC, also including other linguistic devices that could play an interactional role in a communication, such as adverbs of attitude. In addition, future research should also investigate whether the FPs above the CP can be freely iterated, or a fixed (DMs) hierarchy exists.

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