The Complex System of Sentence-Final Particles in Mandarin Chinese

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ABSTRACT

In recent years, the study of grammatical complexity has been marching forward, especially the idea of hidden complexity, which measures the optionality and context dependence of grammatical categories. Mandarin Chinese is notable for its grammar high in both overt and hidden complexities, and its sentence-final particles (SFP) system is prime example for such complexity. Many debates arose around the Mandarin SFPs, but few resulted in consensus. In this article, we will review previous discussions on the SFP system and build a complete summary and theoretic framework for it from a generative approach based on previous works. Most importantly, we propose a new hierarchical structure for the SFPs: AspMirP < FocP (< NomP < CondP) < ForceP < AttP1 < AttP2 < RespP. We will then test our theory with some commonly identified properties of SFPs and extreme cases.

Introduction

Grammatical complexity has been a topic of extensive research and debate amongst linguists, especially as the consensus of "all languages are similar in complexity" breaks down in recent years. Many have argued that certain languages are more complex than others, with [1] being perhaps the most notable of them, while others believed that an accurate measure of complexity of whole languages is impossible, and complexity of specific grammatical domains should be measured instead [2].

Most previous discussions of complexity are in fact limited to overt complexity, the measure of the amount of overt marking. More recently, the importance of hidden complexity, the complexity of ambiguity and inferred information, is starting to be appreciated. First proposed by [3] hidden complexity is the result of the need for economy in expression, putting more emphasis on inference, while the more researched overt complexity is motivated by the need of explicitness. Some East and Southeast Asian languages are rich in hidden complexity, as illustrated by the following example in Mandarin Chinese:

(1)　　　Mandarin [4]

你昨天看了电影吗？看了。

Ni	zuotian	kan	le	dianying	ma?	– ø kan	le	ø.
2nd.sg	yesterday	see	PERF	film	SFP	see	PERF	

Did you see a film yesterday? – [I] saw [one].

Here, both the subject and the object are omitted from the reply and left to be inferred from context. Such non-obligatoriness not only contributes to hidden complexity itself, but may also lead to structural ambiguities, creating more complex constructions. As illustrated in this example, the omission of clause markers and the third person singular pronoun leads to four possible interpretations of a single surface structure [3]

(2)　　　Late Archaic Chinese [3]

病不幸

bing	bu	xing

ill   NEG   be.fortunate

a. Simple sentence: "Illness is unfortunate."

b. Headless relative clause: "The one who is ill is unfortunate."

c. Subject clause: "That s/he is ill is unfortunate."

d. Conditional clause: "If s/he is ill this is unfortunate."

The sentence-final particle (SFP thereafter) system of Mandarin Chinese is one of its most complex systems. As its name suggests, SFPs appear at the end of clauses, and mark a large collection of grammatical aspects, such as aspect, force, and attitude. Some examples of SFPs in Mandarin are given below.

(3) 吃点面包吧。

Chi   dian   mianbao   ba
Eat   some   bread   SFP

Have some bread.

(4)   他刚才还在这来着。

Ta   gangcai   hai   zai   zhe   laizhe
3rd.sg   just.now   still   be.at   here   SFP

He was still here a moment ago.

Many aspects of how SFP functions is still under debate. For phrasal structure, some argue that SFPs form a head-final CP, making Mandarin an exception to the Final-Over-Final Constraint [5], while others believe that phrases including SFPs are still head-initial, but have undergone movement to form the surface head-final order [6]. SFPs have a very strict ordering for cooccurrence, but theories explaining such an order also varies, depending on the classification of SFPs chosen. Traditionally, Mandarin SFPs are split into three layers, namely SFP1 marking tense & aspect (e.g. *le*, *zhe*), SFP2 for force (e.g. *ma*, *ba*), and SFP3 for attitude (e.g. *ou*, *a*), in order of appearance [7]. An alternative classification gives more detail: [8]

(5)   (TP) < sentential aspects < exclusive focus < illocutionary force < special questions < low-layer attitude < high-layer attitude

Despite the many theories present, none of them placed much importance on which SFPs can cooccur and which cannot. Even the semantic meaning of certain SFPs is still under debate.

In this paper, we shall give an in-depth analysis of the functions of SFPs and discuss how the SFP system contributes to both overt and hidden complexity of Mandarin Chinese. In section 2 we will give a holistic review of some properties of SFPs that are under debate and form a theoretical framework. In section 3 we will focus specifically on the root vs. non-root asymmetry of SFPs. Section 4 analyzes functions of some SFPs and cooccurrence problems. section 5 concludes the paper and proposes possible future studies.

Theory And Summary of SFPs

Previous Discussions on SFPs

In this section, we will look at some previous discussions related to the Mandarin SFP system and build our analysis and theory for SFPs on top of them.

It is traditionally believed that the Complementizer layer of the sentence structure consists of only one X-bar projection. However, this cannot explain the coexistence of markers for topic, focus, and illocutionary force apparent in many languages, especially Mandarin Chinese. To resolve this problem, reference [9] proposed the influential Split CP Hypothesis:

(6)   The Split CP Hypothesis

(TP) < FiniteP < (TopicP*) < FocusP < (TopicP*) < ForceP

Reference [9] claims that the Complementizer layer minimally consists of specifications for finiteness and force, since the CP acts as the interface between propositional content (in TP and lower) and a higher phrase or the articulation of discourse. Finiteness is often related to the mood, tense, aspect, and subject agreement properties within the TP, so it acts as the lower interface, while force encode information of the sentence type (i.e. declaration, exclamation, interrogation, etc.).

Before the Split CP Hypothesis, Chinese linguists have already noticed the possibility of multiple projections in CP. Traditionally, SFPs are divided into three classes: 1) markers for tense and aspect, abbreviated as C1 or Clow, including *le* for currently relevant state, *ne* for continued state, and *laizhe* for recent past; 2) markers for sentence type or force, denoted by C2, including *ma* for interrogative, *ba* for imperative, ne for follow-up question, etc.; 3) markers of attitude, denoted by C3, such as *a*, *ya*, *ou*, etc. For consistency of terms and abbreviations, we will refer to these classes as SFP1, SFP2, and SFP3 respectively thereafter.

Subsequent research has attempted to enrich the theory of SFPs, mostly using the Split CP Hypothesis as their basis. Reference [6] further splits the force class, SFP2, into force and mood, with the high-layer force denoting speech act and illocutionary force, and low-layer mood denoting clause type. Attitude is referred to as Degree in [6]. He also identifies the particle 了 *le* as taking a layer of its own and noted that *le* seems to occur before all other SFPs when there is cooccurrence. Reference [6] names this class Trans, claiming that *le* acts as a transition marker. The full classification is given below:

(7)   Degree > Force > Mood, Topic > Trans > Finite

Reference [8] understands the functions of SFPs from a more historical perspective. For example, 吗*ma* originated from the negative marker *wu* in the Tang dynasty, expressing yes-no questions similar to the English "or not?", and was gradually grammaticalized as a yes-no question marker, finally completing in the Qing dynasty. This can also explain the multifunctionality of some SFPs. For example, 呢*ne* may express interrogative force and attitude. This is the result of two distinct lines of grammaticalization that converged to the modern Mandarin word ne. The interrogative reading came from the words *na*/*ni*, while the attitude came from the word *li*. They converged to *li* in the Yuan dynasty, which eventually evolved into ne in modern Mandarin.

Despite the popularity of the field, no previous research on SFPs seems to include all the SFPs known, nor do they explain all aspects and properties of the SFP system. Some of their lists for SFPs are reproduced below, and a complete list of SFPs will be given based on these lists in the next section.

Table 1. (Traditional three classes) [5]

(low C) C1	C2 (force)	C3 (attitude)
le currently relevant state	*ma* interrogative	*ou* warning
laizhe recent past	*ba* imperative	*(y)a* astonishment
ne_1 continued state	ne_2 follow-up question ……	ne_3 exaggeration ……

Table 2. (Fine architecture) [8]

Projections	Particles/operators	Discourse function	Embedded?
S.AspP (sentential aspect)	来着 $laizhe_{asp}$	Recent past	Yes
	了 *le*	State changing	Yes
	呢 ne_{prog}	Progressive aspect	Yes
OnlyP	而已 *eryi*	Sentential exclusive focus	Yes
iForceP (illocutionary force)	吗 *ma*	Standard yes-no question	No
	吧 ba_{imp}	Weak imperative	No

		吧 ba_{conf}	Confirmation yes-no question	No
AttitudeP (speaker's attitude)	Low layer	呢 ne_{att}	Speaker's attitude, subjective opinion, etc.	No
	High layer	啊a, 哎ei, 呗bei, 啦la, 嘞lei, 呐na, 呀ya, 嘛ma, 来着 $laizhe_{att}$, 吧ba_{att}, etc.		

List of SFPs

Here we give a complete list of all SFPs known in Mandarin Chinese, along with their classification and a brief description of function and meaning. The list is arranged in order of occurrence of the classes. We will discuss the validity of the ordering and classification given here in the following sections.

Table 3.

SFP	Traditional classifica-tion	Detailed classfication	Position	Phrase	Function
了 le	SFP1	AspMirP	root/non-root	CP	mirativity(newsworthiness and surprise)
呢ne_1					continued state, durative aspect
来着$laizhe_1$		FocP			focus on past temporal expression
而已$eryi$					exclusive focus, similar to English "only"
的de	(not included)	EmbP	non-root		heading relative clauses and shi…de cleft
的话$dehua$					heading conditional clauses
吗ma	SFP2	ForceP	root		standard yes-no question
么me					standard yes-no question
不bu					standard yes-no question, informal
呢ne_2					follow-up question
嘞lei_1					follow-up question
吧ba_1					follow-up confirmation question
呢ne_3	SFP3	AttP1	root	AttP	contrastive topic
嘞lei_2					contrastive topic
吧ba_2		AttP2			weakening of tone
嘛ma_1					weakening of tone in imperatives
呗bei_1					weakening of tone in imperatives
好了 $haole$					weakening of tone in imperatives
嘛ma_2					obvious
呗bei_2					obvious

哦*o*					reminder, friendly warning, enlightenment
来着*laizhe₂*					uncertainty, attempt to recall
啊*a₁*					exclamation
哎*ai*					
啦*la*					
呐*na*					
诶*ei*					
呀*ya*					
哈*ha*	(not in-cluded)	RespP		RespP	Confirmation
啊*a₂*					
嗯*en*					

 Classification given here is mainly based on cooccurrence: SFPs that can cooccur must be in different classes, and their order of cooccurrence corresponds to the layer of phrases they head, while SFPs that cannot cooccur are either in the same class or limited by other syntactic or semantic factors. For SFPs with controversial functions and meanings, we will take a minimal meaning approach, reducing the number of meanings as much as possible without violating the cooccurrence criteria.

 Many SFPs given in the table have relatively straightforward and uncontroversial meanings, and we will not look at them one by one. We will only discuss parts of this table that are rarely discussed or may raise controversy, including all SFP1, some Force markers and some attitude markers.

 Abbreviations used in this article is given here: SFP—Sentence-Final Particles; SFAP—Sentence-Final Aspect Particles; AspMirP—Aspect-Mirativity Phrase; FocP—Focus Phrase; ForceP—Force Phrase; AttP1—Low-level Attitude Phrase; AttP2—High-level Attitude Phrase; RespP—Response Phrase; COMP—Complementizer; 3rd.sg—third person singular pronoun; 2nd.sg—second person singular pronoun; 1st.sg—first person singular pronoun; 2nd.pl—second person plural pronoun; BA—把*ba*, marker of object-preposing BA-sentences; CLF—classifier; NEG—negative marker; SMLT—simultaneity marker; PERF—perfective aspect; DUR—durative aspect; EXP—experiential aspect; FOFC—the Final-Over-Final Constraint; CT—Contrastive Topic

Head-Initial vs. Head-Final

There is consensus that SFPs in Mandarin Chinese function as Complementizers, and therefore head CPs (Some would put SFP3 in a higher phrasal head called Attitude). On the surface, it seems that SFP in Mandarin are head-final, since, as their name suggests, they appear at the end of embedded or matrix clauses. However, as mentioned above, there has been much debate over the actual structure of CPs headed by SFPs. Here we will look at some arguments of both sides.

 Theorizing SFP as head initial has the merit of being consistent with other parts of Mandarin grammar. Since Mandarin is of SVO word order, and some other complementizers are head-initial, it seems weird that SFPs should be head-final. For example, the Mandarin complementizer 说*shuo* appears before its TP complement, as shown below: [6]

(8)   我想说他是台北人
    wo   xiang [CP   shuo [TP t   ta   shi   taipei   ren]]
    1st.sg   think   COMP   he   be   Taipei   person

I think (that) he is a Taipeier.

It should be noted that constructions like the one in (8) is only observed in certain dialects of Mandarin, especially Taiwan Mandarin.

Another evidence for the initialness of SFP is the Final-Over-Final Constraint (FOFC). According to the FOFC, if a phrase is head-initial, then the phrase immediately dominating it must also be head-initial [10]. Mandarin is clearly head-initial for its VP and TP, so we have compelling reason to consider that SFPs might be fundamentally head-initial, and only appears at the end of clauses due to movement. The movement process is described in [6].

However, [5] gives a strong argument that head-final structure of SFP is also acceptable. The seeming "disharmony" of Chinese sentence structure has existed for nearly all its history. Chinese has been VO since the 14th century BC, and SFP emerged in the 6th century BC. In fact, the disharmony of head-final NP and head-initial VP has also remained stable since 14th century BC. Reference [5] claims that such "consistent disharmony" calls for reexamination of generalizations like FOFC. The FOFC is, after all, a statistical generalization instead of a confirmed part of UG, thus exceptions are expected, especially given that Mandarin is not the only one of such exceptions, and other languages like Vietnamese, Yoruba, and Gbe also have sentence-final question particles. Such exceptions might be due to differing origins of similar structures, much akin to the case of Mandarin pre- and postpositions. The prepositions originate from reanalysis of verbs, and thus follow a head-initial order like VP, as in (9) a., while postpositions are of non-verb origin and doesn't follow the usual head-initial order, as in (9) b.

(9) Pre-/Postpositions ([5] (67)(68))

a. 他们从美国来

Tamen [PrepP	cong	meiguo]	lai
3rd.sg	from	America	come

They come from the US.

b. 桌子上有一台破碎的电脑

[PostpP	Zhuozi	shang]	you	yi	tai	posui-de	diannao
	Table	on	have	one	CLF	broken-adj	computer

On the table is a broken computer.

Giving decisive evidence on the head directionality of SFP would be beyond the scope of this paper. For simplicity, we will adopt the head-final analysis in the following discussions.

Root vs. Non-Root

It is widely noted that certain Mandarin SFP display a kind of root vs. non-root asymmetry. That is, some SFP can only appear in the root clause, some may be interpreted as root or non-root, and some are non-root only. However, the fact that such asymmetry happens systematically on all SFP is only first proposed in [11]. It also seems that such root vs. non-root asymmetry is related to the class or layer of the SFP. SFP1 is generally not restricted to root or non-root, albeit having a strong preference to be interpreted as root, while SFP2 and SFP3 are generally root-only [12].

Root-Only SFPs

The categories SFP2 and SFP3 cover most of the SFPs present in Mandarin, denoting sentence type(force) and the speaker's attitude respectively. Their root-only property is demonstrated in the following example.

(10) Question marker 吗 ma (Modified from [11] (37))

a. 张三来吗？

[ForceP [TP	Zhangsan	lai]	ma]?
	Zhangsan	come	SFP

Is Zhangsan coming?

b.　*张三来吗没有关系

　　*[_TP [_ForceP [_TP　　Zhangsan　lai]　　ma]　　mei　　you　　guanxi.
　　　　　　　　　　　Zhangsan　come　　SFP　　NEG　　have　　relevance

(Intended) Whether or not Zhangsan comes doesn't matter.

c.　张三来不来没有关系

　　[_TP Zhangsan　lai　　bu　　lái]　　　mei　　you　　guanxi.
　　　Zhangsan　　come　NEG　come　　NEG　　have　　relevance

Whether or not Zhangsan comes doesn't matter.

Here, the question marker 吗*ma* is accepted in the matrix clause as in (10) a., but not in the embedded clause in (10) b. To express question or unknown information in an embedded clause, the construction "V-not-V" must be used. The same limitation applies to other question markers, even the informal yes-no question marker 不*bu*, which is a homonym of the negation marker in "V-not-V" itself.

Similarly, attitude markers appearing in embedded clause is unacceptable.

(11)　　嘞*lei₂*

a.　他人还挺好的嘞！

　　[_AttP1 [_TP　Ta　　ren　　　　hai　　ting　　hao-de]　　lei₂]!
　　　　　　　3rd.sg　personality　still　　quite　　good-adj　SFP

He's quite nice!

b.　*他人还挺好的嘞是真的吗？

　　*[_ForceP [_TP [_AttP1 [_TP　Ta　　ren　　　　hai　　ting　　hao-de]　lei]　shi　　zhen-de]　ma]?
　　　　　　　　　　　　3rd.sg　personality　still　quite　good-adj　SFP　be　　true　　　SFP

(Intended) Is it true that he is nice?

Here, the marker for amused attitude 嘞*lei₂* is not accepted in the embedded clause. This restriction applies for not only clausal complements of verbs and nouns as shown in the examples above, but also relative clauses headed by 的*de*. We will discuss this in later sections.

The restriction on SFPs to only appear in the matrix clause can also eliminate scope ambiguity when an embedded clause and a SFP appear at the end of the sentence. [11]

(12) *Ma* at end of matrix and embedded clause ([11] (38)(a))

　　　他不知道阿Q来吗？

　　[_ForceP [_TP　Ta　　　bu　　zhidao　[_TP Akiu　　lai]]　ma]?
　　　　　　　　3rd.sg　NEG　know　　Akiu　　　come　SFP

　　'Doesn't　　　he　　　　know　　　　that　　　Akiu　　　is　　　coming?'

[Excluded: 'She doesn't know whether or not Akiu is coming.']

As exemplified here, the SFP ma can only be interpreted as denoting force of the matrix clause, and the construction with an embedded interrogative clause ('She doesn't know whether or not Akiu is coming.') is excluded.

Root or Non-Root SFP1

There are five known SFPs belonging to the SFP1 category, namely 了*le*, 来着*laizhe₁*, 呢*ne₁*, 而已*eryi*, and 罢了*bale* (呢*ne₁* is distinct from the *ne₂* denoting force and *ne₃* denoting attitude, which we will discuss in later sections). 而已 *eryi* and 罢了*bale* have essentially identical functions and meaning and are usually interchangeable in sentences.

(13) 而已*eryi* and 罢了*bale*

　　　a.　那只是个影子而已/那只是个影子罢了

[FocP [TP	Na	zhi	shi	ge	yingzi]	eryi/bale]		
	That	just	be	CLF	shadow	SFP		

That is just a shaow.

b. 他只是没赶上飞机而已啊/他只是没赶上飞机罢了啊

[AttP2 [FocP [TP	Ta	zhishi	mei	ganshang	feiji]	eryi/bale]	a_1]
	3rd.sg	just	NEG	catch	plane	SFP	SFP

He simply missed the plane! (Nothing more!)

c. 你只是没钱而已吗？/你只是没钱罢了吗？

[ForceP [FocP [TP	Ni	zhishi	mei	qian]	eryi/bale]	ma?
	2nd.sg	just	have.NEG	money	SFP	SFP

Are you really just out of money? (There must be something else you are hiding!)

As exemplified by (13), both *eryi* and *bale* can roughly correspond to the English words "just/simply/only" and denote an exclusive focus of the sentence. Constructions using either word is perfectly grammatical or express the same meaning. Also, the choice of *eryi* or *bale* does not affect the use of other SFPs, as shown in (13) b. and c., where the attitude marker a_1 in the SFP3 category and question marker *ma* of the SFP2 category can be used after both *eryi* and *bale*. They even change the attitude of outer-layer SFPs in similar ways. Both *eryi* and *bale* would restrict an added exclamation SFP to mean a strong, even angry, emphasis on the exclusiveness of the statement, while an added yes-no question marker would be added the meaning of skeptical questioning. Therefore, in following discussions, we will consider *eryi* and *bale* to be identical.

Reference [13] gives a relatively complete list of conditions under which sentence-final aspect particles (SFAP, including *le*, $laizhe_1$, and ne_1) can or cannot occur in non-root clauses. There are three clauses in which SFAP can appear namely clausal complements of nouns, subject clauses, and clauses that express a fact, opinion or condition. SFAP cannot occur under 8 conditions, all of which are non-finite clauses. I will not repeat the argument here due to limited space. All these conditions would apply to *eryi/bale* except for one, namely the raising verb. As shown in (19), *eryi* can appear at the end of an embedded clause that is the complement of *kaishi* 'begin' while an SFAP cannot.

(14) Raising verb with *eryi* (modified from [13] (16))

a. *雨水开始一方面影响农作物了, 另一方面也影响交通了

*Yushui	kaishi	yifangmian	[AspMirP [VP yingxiang	nongzuowu]	le],
rain	start	and	affect	crop	SFAP
Lingyifangmian	[AspMirP [VP ye	yingxiang	jiaotong]	le].	
and	also	affect	traffic	SFAP	

(intended) The rain starts to affect both the crops and the traffic.

b. 雨水开始不再影响交通，而是只影响农作物而已了

Yushui	kaishi	buzai	[VP yingxiang	jiaotong],	
rain	start	no.longer	affect	traffic	
ershi	[FocP [TP zhi	yingxiang	nongzuowu]	eryi]	le].
instead	only	affect	crop	SFP	SFP

The rain no longer affects the traffic, but only affects the crops.

Thus, it seems that *eryi/bale*, which head focus phrases, are typologically different from the SFAPs, which are generally considered to be markers of sentential aspect. We will discuss this difference in detail in later sections.

Non-Root Only 的 de and 的话 dehua

Although much research has been performed on 的*de* as marking the end of relative clauses, [11] first took note of the exclusively non-root property of it. 的*de* is mainly used in two constructions: relative clauses and a special "是…的" ("*shi…de*") construction.

It is quite obvious from (15) that in a relative clause, de can only have a non-root interpretation. Since Mandarin relative clauses are strictly limited to the front of the noun, the end of the relative and matrix clause would not coincide, so *de* can never be a matrix clause SFP.

(15) 的*de*

a.　下雨了的消息令他伤心

[NomP [AspMirP [TP	xia	yu]	le]	de]	xiaoxi	ling	ta	shangxin
	Fall	rain	SFP	SFP	news	make	3rd.sg	sad

The news that it is raining makes him sad.

b.　他喜欢去那家经常放贝多芬的饭馆

Ta	xihuan	qu	na	jia [NomP [TP	jinchang	fang	beiduofen]	de]	fanguan.
3rd.sg	like	go	that	CLF	often	play	Beethoven	SFP	Restaurant

He likes to go to the restaurant that often plays Beethoven.

The "*shi…de*" construction has been used as a cover term for at least four distinct constructions [14]. Some would put focus constructions only involving *shi* under the term "*shi…de*" construction, but we will not discuss it here since it lacks the SFP *de*. The two constructions that involve both *shi* and de are: 1) *shi...de* proper, a cleft construction that emphasized only the sentential element that immediately follows *shi*; and 2) propositional assertion, which denotes an affirmative mood instead of giving focus to a specific part of the sentence. [14]

(16) *Shi…de* focus cleft ([14] (7)a.)

他不是昨天去北京的，是前天去北京的。

Ta	bu	shi	[NomP[zuo-tian	qu	Bei-jing]	de],	shi	[NomP [qiantian	qu	Beijing]	de]
3rd.sg	NEG	be	yester-day	go	Beijing	SFP	be	day.before.yester-day	go	Beijing	SFP

It's not yesterday that he went to Beijing, it's the day before yesterday.

Its cleft property means that the focus of the construction is limited to the element immediately after *shi*, in this case "yesterday", and negation can only be targeted towards the focused element. The fact that de appears in both of the parallel clauses proves that de is part of the embedded clause.

The propositional assertion, on the other hand, does not impose such restrictions, and only implies that the information given is relevant to the current discourse, regardless of whether the hearer already knows the information.

(17)　　Propositional assertion ([14] (15))

其实，他是明白的，不愿意说就是了

Qishi,	ta	shi	[NomP [TP	mingbai]	de],	bu	yuanyi	shuo	jiu	shi	le
In.fact	3rd.sg	be		understand	SFP	NEG	wish	speak	then	be	SFP

In fact, (it is the case that) he understands very well, he just doesn't want to talk.

Sometimes these two constructions can be ambiguous, despite their differences in properties and inner structure, and they can only be differentiated though context [14]. As exemplified by (18), the sentence can be translated as either a propositional assertion similar to the English "it is the case that…", or as a focus cleft on "with you".

(18)　　Ambiguous case ([14] (14))

他是跟你开玩笑的

Ta	shi	[NomP[	gen	ni	kai	wanxiao]	de]
3rd.sg	be		with	2nd.sg	make	joke	SFP

(It is the case that) He was joking with you. /
It was with you that he was joking.

的话 *dehua*, as a *guanlianci* "relational word" equivalent to the English "if", is attached to the conditional clause only, so its non-root position seems obvious. This would also mean that de and dehua cannot cooccur under the same CP due to the difference in clause type, though their position might still coincide. Therefore, we will put *de* and *dehua* in the same phrase, namely the EmbP, short for embeddability phrase.

Function and Cooccurrence Problems

Cooccurrence within SFP1

Though the four members of SFP1 (了 *le*, 呢 *ne*$_1$, 来着 *laizhe*$_1$, 而已 *eryi*) are roughly summarized as sentential aspect markers in most research, this summary fails to account for the various functions and complex structure of SFP1. Reference [8] recognized that 而已 *eryi* as a marker of exclusive focus, takes a phrasal head above those of other "sentential aspect" markers.

(19)　　AspMirP<Only<Force (modified from [8] (29))

她只是辞职了而已吗？

[$_{ForceP}$ [$_{OnlyP}$ [$_{AspMirP}$ [$_{TP}$　ta　　zhishi　　ci　　zhi]　le]　eryi]　ma$_1$]?
　　　　　　　　　　　3rd.sg　only.be　resign　post　SFP　SFP　　SFP

Is it just the case that she resigned? (or is there something more to it?)

(20)　　AspMirP<Only<Attitude2

他只是在喝茶呢而已吧

[$_{Att2P}$ [$_{OnlyP}$ [$_{AspMirP}$ [$_{TP}$　ta　　zhishi　　zai　　he　　cha]　ne$_1$]　eryi]　ba$_2$]
　　　　　　　　　　　3rd.sg　only.be　SMLT　drink　tea　SFP　SFP　　SFP

Probably, it is just the case that he is drinking tea. (Nothing serious.)

As shown in (19) and (20), *eryi* may cooccur with other sentential aspect markers like *le* and *ne*, and occurs strictly after them, so it takes a position above AspMirP. However, it is below Force and Attitude. According to the Split CP hypothesis in [9], Focus takes position below Force and above Finiteness. Therefore, it is reasonable to put *eryi* in the Focus position. Reference [9] also proposes some key differences between topic and focus, such as uniqueness and compatibility with wh- operators.

(21) Uniqueness of focus with *eryi*

　　a.　明天那本书我会给他

　　　[$_{TopP}$ [$_{Top°}$ mingtian]　　　[$_{TopP}$ [$_{Top°}$ na　ben　　shu]　[$_{TP}$ wo　　hui　　gei　　ta]]]
　　　　　Tomorrow　　　　　　　　that　　CLF　book　1st.sg　will　give　3rd.sg

　　Tomorrow, that book, I will give it to him.

　　b.　我明天只会给他**那本书**而已

　　　[$_{FocP}$ [$_{TP}$ wo　　mingtian　　zhi　　hui　　gei　　ta　　**na**　**ben**　**shu**]　eryi]
　　　　　1st.sg　　tomorrow　only　will　give　3rd.sg　that　CLF　book　SFP

　　I will only give him **that book** tomorrow.

(22)　　Incompatibility with wh- of *eryi*

　　a.　那本书你会给谁？

　　　[$_{TopP}$ [$_{Top°}$ na　ben　　shu]　[$_{TP}$ ni　　　hui　　gei　　shei]]?
　　　　　That　　　　CLF　book　2nd.sg　　will　give　who

　　That book, who will you give it to?

　　b.　*你会把那本书给谁而已？

　　　*[$_{FocP}$ [ni　　hui　　ba　　na　　ben　　shu　　gei　　shei]　eryi]
　　　　　2nd.sg　　will　BA　that　CLF　book　give　who　SFP

(intended) For whom is it simply the case that you will give the book to him/her?

Examples (21) and (22) contrasts the Mandarin topic construction using preposing ((29) a., (30) a.) with corresponding focus constructions using *eryi*. In (21) a., both "tomorrow" and "that book" are preposed, resulting in two topics within the sentence, but in (21) b. the focus is limited to the stressed element "that book", and another stressed element or focus would be impossible. Similarly, in (22) a., the topicalized "that book" is allowed in the special question, but a focus construction with *eryi* is not.

It seems that 来着 *laizhe*$_1$ can fit the properties of a focus marker quite well. First, it is incompatible with *eryi*, which we have proven to mark focus, as shown in (23).

(23) *eryi* & *laizhe*$_1$

    a.   他刚才还在这来着

[FocP [TP ta	gangcai	hai	zai	zhe]	laizhe$_1$]
3rd.sg	just.now	still	be.at	here	SFP

He was still here just now.

    b.   *他只是刚才还在这来着而已

*[FocP [FocP [TP	ta	zhishi	gangcai	hai	zai	zhe]	laizhe$_1$]	eryi]
	3rd.sg	only	just.now	still	be.at	here	SFP	SFP

(intended) It is just the fact that he was here just now.

Also, *laizhe*$_1$ can cooccur with *le* and *ne*$_1$ (24 below), similar to *eryi*, and it can also fit the uniqueness requirement (25 below).

(24)   Cooccurrence with *le*/*ne*

    a.   这里刚刚下雨了来着

[FocP [FocP [TP	zheli	ganggang	xiayu]	le]	laizhe$_1$]
	here	just.now	rain	SFP	SFP

It just rained here.

    b.   他刚刚在看书呢来着

[FocP [FocP [TP ta	ganggang	zai	kan	shu]	ne$_1$]	laizhe$_1$]
3rd.sg	just.now	SMLT	read	book	SFP	SFP

He was reading just now.

(25)   Uniqueness of focus with *laizhe*

我昨天是给了他那本书来着

[FocP [TP wo	zuotian	**shi**	**gei-le**	ta	na	ben	shu]	laizhe$_1$]
1st.sg	yesterday	do	give-PERF	3rd.sg	that	CLF	book	SFP

I **did give** him that book yesterday.

laizhe may exist in wh- questions, but it should be interpreted as *laizhe*$_2$, a high-level attitude marker.

Most research describes the function of *laizhe* as denoting "recent past" (e.g. [16], [11], [8], etc.). More specifically, reference [13] argues that *laizhe* takes an expression in past reference time only and implies past tense when no temporal expression is present, but is not a tense marker, since it is not obligatory in past tense expressions. Then what is the exact meaning and function of *laizhe*? Considering our arguments above, we claim that *laizhe*$_1$ is a focus marker that is limited to past temporal expressions. This can be further proven by the fact that stress in a sentence with *laizhe*$_1$ is only put on the verb and its complement. That is, *laizhe*$_1$ can only put focus on the VP that describes the past action, and no other part of the sentence.

(26) Stress of *laizhe*$_1$ sentences

    a.   他刚刚在**看书**呢来着

[FocP [AspMirP [TP	ta	ganggang	zai	**kan**	**shu**]	ne$_1$]	laizhe$_1$]
	3rd.sg	just.now	SMLT	read	book	SFP	SFP

He was **reading** just now. (not eating or gaming)

b. *他刚刚在看书呢来着

*[FocP [AspMirP [TP	**ta**	ganggang	zai	kan	shu]	ne₁]	laizhe₁]
	3rd.sg	just.now	SMLT	read	book	SFP	SFP

(intended) It was **he** who was reading just now. (not anyone else)

c. *他**刚刚**在看书呢来着

*[FocP [AspMirP [TP	ta	**gang-gang**	zai	kan	shu]	ne₁]	laizhe₁]
	3rd.sg	just.now	SMLT	read	book	SFP	SFP

(intended) He was reading **just now**. (not yesterday)

As shown above, only (26) a., where stress and focus are put on the verb "reading", is a legitimate construction, and stress on other parts is impossible. This means that *laizhe₁* is a focus marker specifically reserved for past tense scenarios.

For *le* and *ne₁*, it seems that they are at the same level in phrasal structure. As shown in (19), (20), and (24) above, they are both at the lowest level of SFPs, nearest the TP. The matter of cooccurrence would be more complicated due to the existence of low-level attitude *ne₃*.

(27) *ne₁* and *le*

a. *他喝茶呢了

*[AspMirP [AspMirP [TP	ta	he	cha]	ne₁]	le]
	3rd.sg	drink	tea	SFP	SFP

(intended) He is drinking tea now. (not before)

b. 他喝茶了呢

[AttP1 [AspMirP [TP	ta	he	cha]	le]	ne₃]
	3rd.sg	drink	tea	SFP	SFP

He started to drink tea! (I thought he didn't like tea.) (*He is drinking tea now)

The ungrammaticality of (27) a. implies that *ne₁* is at least not below *le*. Although (27) b. is possible, it seems that the *ne* here carries a certain kind of attitude-like meaning instead of marking durative aspect. Reference [17] gives more evidence on this distinction. They also claim that *ne₃*, like that in (27) b. is a marker of contrastive topic. Following that argument, *ne* in (28) would be only aspectual since it does not require a contrasting context, is limited to a durative action, and occurs below the question marker *ma*.

(28) Aspectual *ne₁* ([17] (17))

[ForceP [AspMirP [TP Ni	dai-zhe	yaoshi] ne₁] ma]?
2nd.sg carry-DUR	key SFP SFP

Are you carrying the keys?

This distinction is even more apparent in tag questions, as shown in (29).

(29)   *ne₁* & *ne₃* in tag questions ([17] (19)(20))

a. 钥匙带着呢没有（呢）？

[AttP1 [AspMirP [TopP [Top°	Yaoshi]	[TP dài-zhe t]]	ne₁]	méi-yoˇu]	(ne₃)]?
	key	carry-DUR	SFP	not-have	(SFP)

Are you carrying the keys or not?

b. 张三去过日本。你去过（*呢）没有呢？

Zhangsan	qu-guo	Riben.	[AttP1 [TP Ni	qu-guo]	(*ne₁)	mei-you]	ne₃]?
Zhangsan	go-EXP	Japan	2nd.sg	go-EXP	(*SFP)	not-have	SFP

Zhangsan has been to Japan. Have you?

In (29) a., the ne_1 denotes aspect only and does not have a contrastive topic meaning, just like in (28), and it falls below the tag "*meiyou*". A ne_3 may be added to the end of the sentence to turn the question into a contrastive question, implying that the addressee might be carrying something other than the keys. In (29) b., the ne_1 is excluded since "been (to Japan)" is a completed act incompatible with durative aspect.

Having demonstrated the position *le* and ne_1 take in the sentence structure, the problem now comes to what function this position would represent. ne_1 is closely related to aspect in that it is limited to durative aspect expressions, but like $laizhe_1$, it does not define nor obligatorily mark durative aspect. However, ne_1 does not seem to have a focus function like $laizhe_1$; in fact, it does not change the meaning of the sentence at all, apart from implying durative aspect sometimes. The function of *le* is perhaps even more under debate. The most common description might be that *le* describes "currently relevant state" [18] or "state changing" [8]. Reference [19] claims that *le* is a marker of mirativity, or "newthworthiness or surprise". It seems quite difficult to summarize the subtle meanings of *le* and ne_1 with a single term. Thus, we will resort to the simple combination of Aspect and Mirativity and refer to phrases headed by *le* and ne_1 as AspMirP.

Illocution and Attitude

There has been extensive research and debate on the function of 吧*ba*. For example, [11] identifies only one *ba*, denoting a weak imperative/advisative illocutionary force, while [8] identifies three, namely the imperative ba_{imp}, confirmational yes-no question marker ba_{comf}, and the attitude marker ba_{att}. However, we argue that only two *ba*'s are present: ba_1 as the confirmational yes-no question marker, and ba_2 as an attitude marker denoting weakening of tone.

The confirmation asking function of ba_1 is widely accepted and relatively straightforward. As shown in (30), adding a ba_1 turns the sentence from a statement into a confirmation question. It can also form simplified confirmation yes-no questions when combined with 对*dui* 'correct' or 是*shi* 'be'.

(30) Ba_1 as confirmation question marker

    a.   他会开车

        Ta   hui   kai   che

        3rd.sg   can   drive   car

  He can drive a car.

    b.   他会开车吧？

       [ForceP [TP Ta   hui   kai   che] ba_1]

       3rd.sg   can   drive   car   SFP

  He can drive a car, right?

    c.   他会开车，对吧？

        Ta   hui   kai   che,   dui ba_1?

        3rd.sg   can   drive   car   correct SFP

  He can drive a car, is that right?

Reference [20] argues that all functions of *ba* are part of its properties as a mitigator, a pragmatic device that eases the tone and reduces possibility for unwelcome reactions, based on Functional Discourse Grammar (FDG). We will not adopt this theoretical framework in this article, but we will similarly argue that all appearances of *ba* in declarative, exclamative, and imperative sentences can be summarized as having a mitigating effect.

    (31) ba_2 in declaratives

他会喜欢的吧

    [AttP2 [TP Ta   hui   xihuan de] ba_2]

    3rd.sg   will   like   SFP   SFP

  He will like it, probably.

    (32) ba_2 in exclamatives

太好了吧！

[AttP2 [AspMirP tai   hao   le]   ba2]

Too   good   SFP   SFP

This is very good!

(33)   *ba2* in imperatives

去吃饭吧

[AttP2 [TP Qu   chi   fan]   ba2]

Go   eat   meal SFP

Let's go and eat.

In (31), adding a *ba2* would reduce the certainty of the statement, so that the addressee might be more comfortable to deny it, roughly corresponding to the English "probably" or "maybe". (Both the weak declaration in (31) and the confirmation question in (30) b. is formed by adding *ba2* directly after a normal declarative sentence. They can only be distinguished through context: the question is used when the speaker assumes that the addressee has more knowledge on the topic than themselves, while the declaration is often used to give uncertain answers to a question.) In (32), adding the *ba2* reduces the force of the exclamation, so it is often spoken in a less agitated tone than a sentence without *ba2*. In (33), *ba2* reduces the commanding force of the imperative, making the sentence sound like a friendly proposal, while a sentence without it sounds more like a command from a superior.

Within the attitude SFPs, there also seems to be a possibility for cooccurrence and division of layers. Following [8], we will refer to the two layers of attitude markers as AttP1 and AttP2. However, contrary to the classification in [8], we claim that both 呢*ne3* and 嘞*lei2* are members of AttP1.

(34)   SFP1 < AttP1

a.   下雨了呢/嘞

[AttP1 [AspMirP [TP   xia   yu]   le]   ne3/lei2]

             fall rain SFP SFP

Ah, it is raining.

b.   他刚才还在这来着呢/嘞

[AttP1 [FocP [TP   ta   gangcai hai zai   zhe] laizhe]   ne3/lei2]

             3rd.sg just.now still be.at here SFP   SFP

He was here just now! (How come he is not here now?)

(35)   AttP1 < AttP2 (modified from [8] (27) (28))

a.   我这还没说完呢嘛!/我这还没说完嘞嘛！

[AttP2 [AttP1 [TP   wo   zhe hai mei   shuo wan] ne3/lei2] ma]!

             1st.sg this still NEG say   finish SFP   SFP

Oh, look, I haven't finished speaking yet! (Please be patient! / Please give me more time!)

b.   他又躲着你呢吧!/他又躲着你嘞吧！

[AttP2 [AttP1 [TP   ta   you   duo-zhe   ni]   ne3/lei2] ba]!

             3rd.sg again hide-DUR 2nd.sg SFP   SFP

Probably, look, he again hides himself from you!

Examples (34) and (35) shows that *ne3* and *lei* are in a position above SFP1 and below AttP2, and they are roughly interchangeable, with lei being more informal. (Examples with Force SFPs is not given since attitude markers are not allowed in interrogatives, and all Force SFPs happen to mark interrogative force.)

There has been extensive research of *ne3*'s function in sentences. Reference [21] describes the function of *ne3* as expressing contrast or negation of a certain assumption, either contained in the context or in the sentence itself. Reference [17] gives a more detailed argument, and proposes two functions for *ne*, one is marking aspect, and the other is marking Contrastive Topic (CT). A CT marker "signals an utterance as addressing a particular issue in the discourse, while leaving one or more contrasting issues unaddressed." [22]. *ne3* and *lei2* seems to have a similar

function as an attitude marker. As shown in (36) a., adding ne_3 or lei_2 implies that the information given in the response (Zhangsan said that he is going to the conference) contrasts with an assumption in the context (Zhangsan is telling the truth vs. he doesn't seem to be planning to go), but this contrast is left unresolved. However, in (36) b., the response fully resolves the question, so no possible CT is left for ne_3 or lei_2 to mark.

(36)　　　Contrastive Topic with ne_3/lei_2 ([5] (11)(12))

a.　(Is Zhangsan going to the conference?)

他跟我说要去呢/嘞……(但是他还没买机票)

[AttP2 [TP	Ta	gen	wo	shuo	yao	qu]	ne_3/lei_2] …
	3rd.sg	with	1st.sg	say	will	go	SFP
(danshi	ta	hai	mei	mai	ji-piao.)		
(but	3rd.sg	still	have.not	buy	plane-ticket)		

He told me he's going… (but he still hasn't bought a plane ticket.)

b.　(How did you find out that Zhangsan is going to the conference?)

他跟我说他要去（*呢/嘞）

Ta	gen	wo	shuo	yao	qu	(*ne_3/lei_2).
3rd.sg	with	1st.sg	say	will	go	(*SFP)

He told me he's going.

However, [17] does not make the distinction between ne_2 and ne_3, explaining both with the CT theory. We put ne_2 and ne_3 under separate categories because 1) it is generally believed that Attitude takes a position above Force, and 2) ne_2 changes the illocution of a sentence, sometimes even corrects an ungrammatical sentence, but ne_3 does not, as shown in (37).

(37) ne_2

a. *如果是你

*ruguo	shi	ni
If	be	2nd.sg

*If it were you

b. 如果是你呢？

[ForceP [TP	ruguo	shi	ni]	ne_2]
	If	be	2nd.sg	SFP

How about if it were you? (What would you do?)

lei_1 would function similarly in follow-up questions like these. However, *ne* and *lei* appearing in special questions should be considered as attitude markers, since they are not obligatory in special questions, and implies that the question is asked in response a certain contrast in context.

(38) ne_3/lei_2 in special questions

a.　是谁在唱歌？

shi	shei	zai	chang	ge?
Be	who	SMLT	sing	song

Who is singing?

b.　是谁在唱歌呢/嘞？

[AttP2 [TP	shi	shei	zai	chang	ge]	ne_3/lei_2]?
	Be	who	SMLT	sing	song	SFP

Who is singing there? (They are not supposed to be singing!)

As shown in (38), a question without ne_3/lei_2 is neutral, while one with them is often used as a weak accusation. This is coherent with other CT uses of ne_3/lei_2. (38) b. can be interpreted as implying the contrast of "It is not allowed to sing here" with "someone is singing here now".

Confirmation Markers in The Highest Layer

In recent years, many have started to take note of the Mandarin confirmation marker *ha* and include it in the discussions for SFPs (e.g. [23], [24], etc.). However, they generally do not follow the generative framework based on Split CP hypothesis. Here we will attempt to fit ha into our previous framework, along with other possible confirmation markers 啊*a_2* and 嗯*en*.

Ha, *a_2*, and *en* are often added after declaratives, imperatives, and interrogatives to express a confirmation seeking meaning. In (39) a., adding them has an effect similar to adding a *ba_1* and forming a weakened confirmation question. (39) b. expresses an emphasis on the speaker's desire, sometimes even command, to get an answer. (45) c. functions as an imperative that expects a positive reply, very possibly said by a shop owner to their employees.

(39) Confirmational markers in sentences (modified from [24](1) b.)

    a. 你们是九点钟开门的哈/**啊**/嗯？

[RespP [TP	Nimen	shi[NomP	jiu	dianzhong	kai	men	de]]	ha/a_2/en]?
	2nd.pl	be	nine	o'clock	open	door	SFP	SFP

You open at nine o'clock, right?

    b. 你们九点钟开门吗，哈/**啊**/嗯？

[RespP [ForceP [TP	Nimen	jiu	dianzhong	kai	men]	ma]	ha/a_2/en]?
	2nd.pl	nine	o'clock	open	door	SFP	SFP

Do you open at nine o'clock? Is that right?

    c. 你们就九点钟开门吧，哈/**啊**/嗯？

[RespP [AttP2 [TP	Nimen	jiu	jiu	dianzhong	kai	men]	ba_2]	ha/a_2/en]?
	2nd.pl	just	nine	o'clock	open	door	SFP	SFP

Just open at nine o'clock, will you?

It is also obvious from these examples that *ha/a_2/en* takes a position even higher than AttP2. Another important evidence for the claim that RespP is above CP and AttP is that there is usually a pause between *ha/a_2/en* and the rest of the sentence.

(40) Pause before RespP ([24](8))

    这道题没错吧，啊？

[RespP [AttP2 [TP	Zhe	dao	ti	mei	cuo]	ba_2]	[pause marker]	ha]?
	this	CLF	exercise	NEG	wrong	SFP		SFP

Probably, this exercise is not wrong, eh?

Reference [23] proposes an explanation based on interactional structure, a structure above CP that denotes discourse interactions, which is further split into Grounding Speaker, Grounding Addressee, and Response. We will not adopt this relatively pragmatics-oriented analysis, but we would agree that attitude and response markers are above the traditional CP. Thus, we now have a complete structure of the Mandarin SFP system. The structural hierarchy is summarized below.

(41) The structural heirarchy

    a. (TP) < CP < AttP < RespP

    b. (TP) < AspMirP < FocP (< NomP < CondP) < ForceP < AttP1 < AttP2 < RespP

Some Extreme Cases

In this section, we will test our theory with some uncommon and extreme cases of SFP cooccurrence. Two kinds of situations will be studied here: cooccurrence of homonyms and cooccurrence of three SFPs and above.

It is widely accepted that there are two kinds of 了 *le* in Mandarin Chinese, namely the verbal *le* marking perfective aspect, and sentential *le* functioning as an SFP as discussed in previous sections [15]. This distinction is evident in sentences where both *le*'s are present.

(42)   Two kinds of le ([15] (10))

Zhangsan	chi	le	san	ge	pingguo	le.
Zhangsan	eat	PERF	three	CLF	apple	SFP

Zhangsan has eaten three apples.

With the object "three apples" intervening, the two *le*'s are clearly separate, but if le appears after an intransitive verb, the position of the two *le*'s will coincide, leading to an ambiguity in meaning.

(43) Ambiguous *le* ([15] (9) a.)

张三胖了

Zhangsan	pang	le.
Zhangsan	fat	PERF-SFP

Zhangsan became fat/is fat (now).

As shown in (43), the *le* at the end of the sentence can be interpreted as perfective, SFP, or both. Distinction between these functions can only be based on context.

A similar situation happens in sentences with ne. All three functions of ne are SFPs, with ne_1 in AspMirP, ne_2 in ForceP, and ne_3 in AttP1. ne_2 seems to be impossible to cooccur with the other two *ne*'s due to a limitation in sentence type. However, a ne_1-ne_3 cooccurrence is perfectly possible. An example for two *ne* occurrences and an ambiguous *ne* is given in (44) a. and b. respectively.

(44) ne_1-ne_3 cooccurrence

a.   他刚才在喝茶呢来着呢

[AttP1 [FocP [AspMirP [TP	ta	gangcai	zai	he	cha]	ne_1]	$laizhe_1$]	ne_3]
	3rd.sg	just.now	SMLT	drink	tea	SFP	SFP	SFP

He was drinking just now. (not reading, driving, etc.)

b.   他刚才在喝茶呢

Ta	gangcai	zai	he	cha	$ne_{1,3}$
3rd.sg	just.now	SMLT	drink	tea	SFP

He was drinking just now./ He was drinking just now. (not reading, driving, etc.)

a_1 and a_2 may also cooccur, but because of the existence of the pause marker between RespP and AttP2, there is always two instances of *a*.

(45) Two instances of *a*

是你干的啊，啊？

[RespP [AttP2 [EmbP [TP	shi	ni	gan]	de]	a_1] [pause marker]	a_2]
	Be	2nd.sg	do	SFP	SFP	SFP

So, it is you who did this, huh?

Other cooccurrences are impossible due to incompatibility of sentence type, clash of position, or contradiction in meaning. Due to limited space, we will not discuss all of them here.

As for cooccurrence of more than three SFPs, sentences like this are theoretically possible but extremely rare in actual speech. Here we will attempt to construct a sentence with the maximum number of SFPs possible.

(46) Maximal cooccurrence

昨天下雨了来着的消息让他生气了来着呢吧，啊？

[RespP [AttP2 [AttP1 [FocP [AspMirP [TP [EmbP [FocP [AspMirP [TP	zuotian	xia	yu]	le]	$laizhe_1$]	de]
	yesterday	fall	rain	SFP	SFP	SFP

xiaoxi	rang	ta	shengqi]	le]	$laizhe_1$]	ne_3]	ba_2]	[pause marker]	a_2]
news	make	3rd.sg	angry	SFP	SFP	SFP	SFP		SFP

(I think) it is the case that the news that it rained yesterday made him angry, eh?

Example (46) includes 8 SFPs, 3 in the embedded clause and 5 in the matrix clause, covering 6 of the 7 classes of SFPs identified here. The only class not included here is ForceP, since including a force marker would exclude AttP1 and AttP2, but we can simply change the ne_3 and ba_2 in (46) into ma or me to include ForceP into the construction. This sentence and similar constructions prove that the theory for SFPs proposed in this article can reliably predict the grammaticality of sentences including SFPs.

Discussion and Conclusion

In this article, we looked at current discussions regarding the sentence-final particle system in Mandarin Chinese, gave a complete summary of all known SFPs, proposed a phrasal structure for them, examined their functions and phrasal position, and looked at some extreme cases to verify our theory. More specifically, we proposed a new hierarchical order of SFPs that fully explains their occurrence in the Mandarin language and discussed properties of SFPs such as head direction, root/non-root asymmetry, cooccurrence. We hope to organize the many debates revolving around Mandarin SFPs using a generative theoretical framework, give a holistic analysis of the entire field, and bring attention to the hidden side of complexity for languages heavily relying on context inference like Mandarin.

This article is certainly not flawless, nor does it claim to settle all debates regarding Mandarin SFPs. We have largely omitted the complex relations between SFPs and modals, relational words, verbs, adverbs, intonation, etc. Nor have we gone deep into the theoretical framework used to explain the workings of the SFP system.

For future research, there are many possible directions to explore. Many have claimed that using a generative approach and Split CP hypothesis to explain the SFP system is flawed and have proposed various new theoretical frameworks. A good topic for future research might be to employ such theoretical frameworks to make a summary of the SFP system as complete as this one. Also, many claims on grammaticality given in this article is produced by the author himself and other Mandarin speakers without linguistic training. Future research may attempt to correct some of these claims and the phrasal structure built on top of them or use experimental methods to verify these claims. It is also possible to go into more detail of the complexity theory and explore more complex interactions within the SFP system.

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Reference

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