

The Interaction between SFPs and Adverbs in Mandarin Chinese —A Corpus-Based Approach

Yifan He

Department of Chinese and Bilingual Studies
The Hong Kong Polytechnic University
11 Yuk Choi Road, Hung Hom, Hong Kong
yifanhe324@yahoo.com.hk

Abstract

This paper proposes a new methodology in investigating the semantic and pragmatic properties of SFPs in Mandarin Chinese. A case study of the interaction and correlation between SFP-*Ne* and SpOAs--*Shenzhi*, *Qishi*, and *Nanguai* has been conducted. Two semantic features of [+unexpectedness] and [+intersubjectivity] have been summarized on SFP-*Ne*.

1 Introduction

Research on Sentence Final Particles (SFPs henceforth) has been a long-held issue in the field of Chinese linguistics. A voluminous body of literature has been devoted to the study of structural properties, historical development as well as the semantic or pragmatic properties of SFPs. Zhu (1982: 208) accurately observes the hierarchical structure of SFPs and proposes a three layer classification on them, which include: 1) Tense and Aspectual Information, e.g. *Le*, *Laizhe*, *Ne₁*; 2) Sentence Type Marker, e.g. *Ma*, *Ba*, *Ne₂*; 3) Speaker's Attitude, e.g. *Ou*, *A*, *Ne₃*. Three senses of *Ne* are listed in (1)-(3) and this paper concentrates on the outmost layer of *Ne₃*.¹

- (1) Ta1 zai jia kan dianshi ne.
He PROG home look television ne.
He is watching television at home.

¹ All the SFP-*Ne* below, if not specified, refers to *Ne₃*. The abbreviations used in this paper are glossed as follows: PROG: progressive aspect marker; CL: classifier; NEG: negative morpheme; PERF: perfective aspect marker. BI: comparative morpheme. DE: pronominal modifier maker, post-verbal resultative marker.

- (2) Ni mama ne?
You mum ne
Where is your mum?

- (3) Ta chi le shi wan mifan
He eat PERF 10 CL rice
ne.
ne.
He has eaten ten bowls of rice.

Previous research on SFPs focuses on *Ne* alone, seldom do they take other constituents within the sentence into consideration. Moreover, the authors only explain the few examples they listed on the papers, seldom do the corpora data are involved.

According to our corpus investigation, we find the interaction and correlation between certain adverbs, namely, Speaker-oriented Adverbs (SpOAs henceforth) and SFP-*Ne* are not random. The goal of this research is to gain a comprehensive picture of the actual use of *Ne* and to unveil the mechanism of interaction between SpOAs and SFP-*Ne*.

2 Background Literature

2.1 Review on SFP-*Ne*

Previous research on SFP-*Ne* can be summarized as following two opposite directions, as Wu (2005: 48) put it, one is the "Meaning Maximalist" and the other is the "Meaning Minimalist". The former (Chao, 1968; Chu 1985) would enumerate all the possible meanings of SFP-*Ne* in the descriptive tradition, while the latter (Alleton, 1981; Li and Thompson, 1981; King, 1986; Shao, 1996; Wu, 2005; Constant, 2014) endeavors to extract a general, unified core meaning or function of SFP-*Ne*. We take the basic stand of the latter and argue that the seemingly bewildering uses of SFP-*Ne* are in fact contextually derived.

2.2 Review on SpOAs

The term of SpOAs, to the best of my knowledge, was firstly proposed by Jackendoff (1972: 56). He treats SpOAs as sentential adverbs, which express speaker's attitude or evaluation towards the propositional content. Later on, scholars (Bellert, 1977; Nilsen, 2004; Ernst, 2008, 2009) unanimously agree that SpOAs are used by the speaker to express his/her attitude or evaluation towards the proposition, or to be more specific, they refer to speaker's commitment to the truth of the proposition.

Review on the SFP-*Ne* and SpOAs indicates that both of them, at the semantic level, are used by the speaker to express his/her attitude towards the propositional content. And at the syntactic level, they are situated at the higher, periphery positions above the clause. Therefore it's reasonable and logical for us to investigate their correlation and interaction.

3 Preliminary Observation on *Ne*

3.1 Two Features

To begin with, we start with the minimal pair comparison between sentences with SFP-*Ne* and without SFP-*Ne*.²

- (4) a. A: Zhe jian qunzi duo shao qian?
This CL dress more little money
How much is this dress?
B: san wan
30,000 (RMB)
B: san wan ne.
30,000 ne.(RMB)
- b. A: Ta jia hen qiong, ni jiu
He family very poor, you then
bu yao gen ta laiwang
NEG want with he contact.
His family is very poor, so you'd better
not have contact with him anymore.
B: Ta jia you ershi tao fang
He family have twenty CL house
His family owns twenty houses.
B: Ta jia you ershi tao
B: He family have twenty CL

Fang ne.
House ne.
His family owns twenty houses. (To your surprise)

In (4a), The first answer without *Ne* is just a statement of observation, of the fact that the cost of this dress is 30000 RMB. When *Ne* is added at the end, the speaker is informing or reminding the hearer of this unexpected or surprising cost of 30000 RMB for a single dress;

The same applies to (4b) as well, the first answer without *Ne* indicates a basic fact that "twenty houses are owned by his family." When *Ne* is appended at the end, the speaker reminds the hearer that the new information of owning twenty houses is unexpected to the hearer and the speaker to some extent is persuading the hearer to accept their relationship.

We further test the unexpectedness triggered by *Ne* by observing the co-occurrence between certain Chinese idioms with *Ne*.

- (5) a. Zhong-suo-zhou-zhi, diqiu wei
As_everyone_knows, Earth surround
zhe taiyang zhuan (*ne)
ASP Sun revolve>(*ne).
As everyone knows, the Earth revolves
around the Sun.
- b. Su hua shuo, meiyou
General utterance speak, NEG
Guiju bu cheng fang yuan (*ne).
rule, NEG become square circle (*ne)
As old saying goes, no rule, no proper
practices.

The idioms of "zhong-suo-zhou-zhi (As everyone knows)" and "su-hua-huo (As old sayings goes)" all indicate old information or the propositions follow it must be in line with the previous expectation, and hence the semantic clashes arises when *Ne* triggers the unexpected information, therefore it is infelicitous for *Ne* to appear at the end of the sentence.

We may summarize here that *Ne* is used to trigger unexpected information. It has the semantic feature of [+Unexpectedness].

We also find that *Ne* in general is used in interactive context, when the speaker takes the hearer's attention or attitude into consideration. This coin-

² All the examples, if not specified, come from the CCL or BCC corpus.

cides with the notion of “Intersubjectivity” proposed by Traugott and Dasher (2001).

The Intersubjectivity encoded in *Ne* can be proved by the co-occurrence between degree modifier “*Ke* (so/such)”, “*Zhen* (really/truly)” and “*Tai* (excessively/very)” and SFPs. We investigate the Chinese corpus created by center for Chinese Linguistics at Peking University (CCL in abbreviation) and all the data is shown in the figures below.

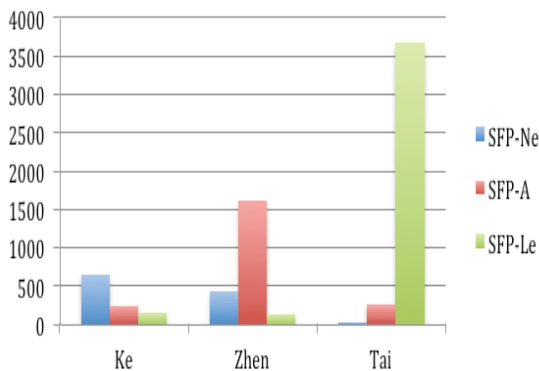


Figure 1 Frequencies of the co-occurrence between Degree Modifiers and SFPs in CCL

Both corpora data indicate that *Ke* is in high frequency of co-occurring with *Ne*, whereas *Zhen* and *Tai* co-occurs with *A* and *Le* respectively. Typical examples of each are illustrated in (6).

- (6) a. Xianggang xiatian ke re ne.
Hong Kong summer so hot ne.
It is so hot in summer in Hong Kong.
- b. Xianggang xiatian zhen re a
Hong Kong summer really hot a.
It is really hot in summer in Hong Kong.
- c. Xianggang xiatian tai re le.
Hong Kong summer very hot le.
It is excessively hot in summer in Hong Kong.

With respect to the “*Ke X Ne*” construction, we find the “*X*” can be gradable adjectives, psychological verbs and measurable verb phrases, which are listed in (7)-(9).

- (7) “Jiaqian ke gui ne.” ma wei shuo.

Price so expensive *ne*. Ma Wei speak
“It costs a lot.” said Ma Wei.

- (8) Women lingdao duiyu jiashu de jiating
We leader for subordinate DE family
wenti ke guanxin ne.
problem so care *ne*.
Our leader cares a lot about his subordinates’ family issues.

- (9) Nongchang jin wan zhe ge dianying
Farm today night this CL movie
Ke kai yanjie ne.
So open field of vision *ne*.
You may watch this movie tonight in the farm.
It’s quite eye-opening.

Ke here not only marks the degree of the predicate, but more importantly, it triggers the speech participants’ expectation and assumption. This interactional context and intersubjectivity information need to be marked by SFP-*Ne*.

To sum up, based on our discussion in section 3, two semantic features can be summarized on SFP-*Ne*, one is the unexpectedness, the other is the intersubjectivity.

The following co-occurrence data between certain SpOAs and SFP-*Ne* will further confirm our preliminary prediction.

3.2 Co-occurrence data

Chinese SpOAs forms a heterogeneous group. Due to the limit of space, we select twenty typical examples of disyllabic SpOAs from each category and investigate their interaction and correlation with SFP-*Ne* in the CCL and BCC³ corpus respectively.

SpOAs	SFP- <i>Ne</i>			
	CCL		BCC	
	Tokens	%	Tokens	%
1. <i>Queshi</i> (Truly)	20	1.78	75	2.08

³ BCC corpus is constructed by Beijing Language and Cultural University. The corpus has approximately 15 billion characters. See <http://bcc.blcu.edu.cn>
in the table refers to the absent of relevant data

2. <i>Genben</i> (Thoroughly)	4	0.35	6	0.17
3. <i>Jiujing</i> (On earth)	#	#	#	#
4. <i>Nanguai</i> (No wonder)	74	6.61	716	19.83
5. <i>Benlai</i> (Originally)	3	0.26	10	0.28
6. <i>Yiding</i> (Definitely)	6	0.53	8	0.22
7. <i>Dagai</i> (Probably)	15	1.34	5	0.14
8. <i>Qishi</i> (Actually)	538	48.03	1781	49.32
9. <i>Fanzheng</i> (In any case)	10	0.90	3	0.08
10. <i>Mingming</i> (Obviously)	#	#	4	0.11
11. <i>Yexu</i> (Maybe)	35	3.12	130	3.54
12. <i>Haoxiang</i> (Seem)	5	0.45	25	0.69
13. <i>Juran</i> (Surprisingly)	8	0.71	110	3.05
14. <i>Xingkui</i> (Fortunately)	2	0.18	5	0.14
15. <i>Shenzhi</i> (Even)	377	33.76	647	17.92
16. <i>Pianpian</i> (Persistently)	2	0.17	20	0.55
17. <i>Zhenghao</i> (Just right)	4	0.36	42	1.16
18. <i>Guoran</i> (As expected)	#	#	12	0.33
19. <i>Jianzhi</i> (Simply)	16	1.43	10	0.28
20. <i>Qiahao</i> (Just in time)	1	0.09	2	0.05
Total	1120		3611	

Table 1 Distribution of co-occurrence between SpOAs and SFP-*Ne*

Table 1 displays the distribution of the Chinese SpOAs along with SFP-*Ne* in both the CCL and BCC corpora. Corpus data clearly prove that co-occurrence between SpOAs and SFP-*Ne* is not random, certain adverbs are in high frequency of co-occurring with *Ne* while others never co-occur with *Ne*. Among all these twenty SpOAs, the top

three adverbs that are in high frequency of co-occurrence are *shenzhi*, *qishi* and *nanguai*. Despite the seemingly disparate meanings and functions of these three SpOAs, we assume they are fundamentally linked by certain common features, and this explains their co-occurrence with SFP-*Ne*.

4 Co-occurrence between *Shenzhi*, *Qishi*, *Nanguai* and *Ne*.

4.1 *Shenzhi* and *Ne*

Shenzhi is a commonly-used adverb in Chinese, it in general triggers an additive ordering and designates the boundary information on the scale. Typical example of numeral ordering is illustrated below,

- (10) Yang haizi zhe ge zeren ,
 Raise child this CL responsibility,
 Hui peiban ni dao ershi
 will accompany you reach twenty
 sui, sanshi sui, shenzhi sishi sui.
 age, thirty age, even forty age.
 The responsibility of raising children will
 accompany you to 20,30 even 40.

Shenzhi in (10) firstly triggers a scale along the dimension of age, and at the same time designates the constituent following it “forty-year-old” to be the endpoint on this scale. With respect to the co-occurrence between *Shenzhi* and *Ne*, examples in (11) and (12) demonstrate their interaction.

- (11) Ta suiran chuzhong biye ,
 He although junior high school graduate,
 Danshi ta tudi you
 but he apprentices have
 benkesheng, yanjiusheng, shenzhi boshi ne.
 bachelor, master even Ph.D. ne.
 Although he only graduates from junior high
 school, among his apprentices, there are
 bachelors, masters and even Ph.Ds.

- (12) “Wo ye shoudao yaoqinghan le.”
 I also receive invitation PERF
 Ta jiaoao de shuo, “ renjia
 She proudly DE speak, They
 Shenzhi shang men qing wo ne.
 Even up door invite I ne.
 “I got the invitation as well,” she said proudly,
 “They even invited me at my door.”

In (11), noun phrases form an additive scale along the dimension of degree titles. *Shenzhi* still designates the constituent following it “Ph.D. title” to be the endpoint information on the scale.

Apart from this, this boundary information from the speaker’s view is unexpected or surprised the hearer. Therefore *Ne* is used by the speaker to inform or remind the hearer of this unexpected information; It’s more felicitous to use *Ne* than delete it in conversation as (12). The event of “invite me by my door” is still unexpected or surprised the hearer from the speaker’s viewpoint, therefore *Ne* is used by the speaker to remind to inform the hearer of this unexpected information.

To sum up, *Shenzhi* designates the endpoint on a given scale and this boundary information is in general unexpected or surprised the hearer from the speaker’s view, therefore SFP-*Ne* is added to inform or remind the hearer of this unexpected information.

4.2 *Qishi* and *Ne*

Qishi is used fundamentally to trigger a contrastive relation among propositions. It can be a natural contrast encoded in predicates or an evaluative contrast triggered by the background knowledge and current proposition, as exemplified in (13) and (14).

(13) Xianzai ting qi lai kexiao,
Now listen up come ridiculous
qishi dangshi hen xian suan.
Actually then very heart sour
Now it sounds like ridiculous, however it
actually was very heart-breaking at that time.

(14) Shuo shi jia, qishi jia li
Speak BE home, actually home inside
Jiu wo yi ge ren
only I one CL person.
(While you may say) I have a family, but
actually I am the only person in it.

The contrastive relation in (13) is triggered by the predicates between “*Kexiao* (ridiculous)” and “*Xinsuan* (heart-breaking)” and in (14) the contrastive relation is generated between the general world knowledge that family members must exceed one and the current statement of only one family member. Typical examples of co-

occurrence between *Qishi* and *Ne* are extracted from the corpus data and illustrated in (15) and (16).

(15) Kan zhe women xiang getou yiyang
Look ASP we like height the same
Qishi wo bi ta ai shier limi ne.
Actually I BI she short twelve cm ne.
It looks like that we are in the same height, but
actually I am 12 cm shorter than her.

(16) “Xiao yun, wo mei gaosu ni, qishi
Little Yun, I NEG tell you.
Qishi wo you wuwan duo de gupiao ne.
Actually I have 50000 more DE stock ne.
“Little Yun, I did not tell you this before, but I
actually have stocks worth more than
50000RMB

The contrastive relation in (15) exists between the height in look and in reality, the speaker is informing or reminding the hearer to pay attention to this unexpected, contrastive relation, and hence *Ne* is added by the end. The conversation in (16) is held between boyfriend and girlfriend, the boy is persuading his girlfriend to keep the baby by informing her that he actually possesses stock investments. Therefore *Ne* is used by the speaker/boyfriend to inform the hearer/girlfriend to pay attention to this unexpected, surprising possession of money.

Therefore we may summarize that *Ne* is used in *Qishi* sentences to mark the unexpected contrastive relation among predicates or propositions.

4.3 *Nanguai* and *Ne*

Nanguai is used to introduce the effect part of the causality relation in Chinese. The speaker usually finds the observed event to be surprising or out of expectation. And it is not until the reason is discovered that the speaker suddenly realizes this cause and effect relation.

(17) Ta zi xiao shenghuo zai zhongguo,
She from little live in China,
Nanguai shuo yi kou liuli de hanyu.
no wonder speak one CL fluent DE Chinese.
She has been living in China since childhood.
No wonder she speaks fluent Chinese.

(18) Nanguai ta mei shang ke,

No wonder he NEG up class,
 yuanlai shi bing le.
 originally BE sick PERF.
 No wonder he did not attend the class, it turns
 out that he is sick.

The speaker in (17) finds her fluency in Chinese to be surprising, and it is not until the speaker discovers that she actually lives in China since childhood that the speaker realizes this causality relation and no longer be surprised. In (18), the speaker finds his absent from the class to be abnormal, and it is not until the speaker knows his sickness that the speaker realizes this causality relation and no longer be confused. Co-occurrences between *Nanguai* and *Ne* are displayed in (19) and (20).

(19) Nanguai ta turan yun dao ne,
 No wonder he suddenly faint down ne,
 zuijin yizhi zai jian fei
 recently always PROG minus fat.
 No wonder he fainted suddenly, he has been
 on the diet recently.

(20) A: Baobei, duo chi huluobu dui
 Sweetie, more eat carrot for
 Shili hao.
 Eyesight good.
 A: Sweetie, eat more carrot, it's good for
 your eyesight.
 B: o, nanguai tuzi bu dai
 oh, no wonder rabbit NEG wear
 yangjing ne.
 glasses ne.
 B: Oh, I see. No wonder the rabbits do not
 wear glasses.

In (19), the speaker finds his faintness to be unexpected or abnormal, the speaker is informing or reminding the hearer of this unexpected causality relation and when the speaker finds him to be sick recently, the speaker realizes the cause and effect. In a conversation between the mum and her daughter in (20), the mum is informing her daughter of eating more carrots, the daughter used to find rabbits not wearing glasses to be confused, upon hearing her mum's words, the speaker/daughter is reminding or informing her hearer/mum of this unexpected causality relation.

From this we may conclude that *Ne* is used by the speaker in *Nanguai* sentences to remind or inform the hearer of this unexpected causality relation.

5 Conclusion

This paper starts with a preliminary observation on SFP-*Ne* and two semantic features of [+unexpectedness] and [+intersubjectivity] are summarized accordingly. Following this line of analysis, we investigate the interaction between SpOAs and SFP-*Ne* in corpora data and pick out the top three SpOAs that are in high frequency of co-occurring with SFP-*Ne*, which include *Shenzhi*, *Qishi* and *Nanguai*. Despite the disparate meanings of these adverbs, we find they are fundamentally linked by the properties of unexpectedness, be it an unexpected boundary point on the scale, a contrastive relation or a causality relation.

Putting the pieces together, we conclude the semantic properties of *Ne* and more importantly, our proposal could be further confirmed through analysis upon the co-occurrence between SpOAs and SFPs. We hope the methodological innovation used in this paper may apply to future studies on SFPs both in other dialects across China and cross linguistically.

Acknowledgement

This paper is part of my doctoral thesis, special thanks goes to my supervisor Prof. Dingxu, SHI. I would also like to thank the anonymous reviewers for their valuable comments and suggestions. All remaining errors are mine.

References

- Alleton, Viviane. 1981. Final particles and expression of modality in modern Chinese. *Journal of Chinese linguistics*. 9: 91-115.
- Bellert, Irena. 1977. On semantic and distributional properties of sentential adverbs. *Linguistic Inquiry*, 8(2): 337-351.
- Chao, Yuen-Ren. 1968. *A Grammar of Spoken Chinese*. Berkeley: University of California Press.
- Chu, Chauncey. 1986. Yuyongxue yu hanyu jiaoxue—juwei zuzi ne gen me de yanjiu [Pragmatic and Chinese Teaching—Studies on final particle *Ne* and *Me*].

- Zhongnan Minzu Daxue Xuebao* [Journal of South-Central University for Nationalities] 3:28-37.
- Constant, Noah. 2014. Contrastive Topic: Meanings and Realizations. Doctoral Dissertation, University of Massachusetts, Amherst.
- Ernst, Thomas 2008. Adverbs and Positive Polarity in Mandarin Chinese. In *Proceedings of the 20th North American Conference on Chinese Linguistics (NACCL-20)* 1: 69-85.
- Ernst, Thomas. 2009. Speaker-oriented Adverbs. *Natural Language & Linguistic Theory*. 27(3): 497-544.
- Jackendoff, Ray. 1972. *Semantic Interpretation in Generative Grammar*. Cambridge: MIT Press.
- King, Brian. 1986. NE---a discourse approach. *Journal of the Chinese Language Teachers Association*. 21(1): 21-46.
- Li, Charles N. and Sandra A, Thompson. 1981. *Mandarin Chinese: A Functional Reference Grammar*. Berkeley: University of California Press.
- Nilsen, Øystein. 2004. Domains for adverbs. *Lingua*, 114(6): 809-847.
- Shao, Jing-Min. 1996. *Xiandai Hanyu Yiwenju Yanjiu* [Research on Modern Chinese Interrogatives] Shanghai: East China Normal University Press.
- Traugott, Elizabeth. C., and Dasher, Richard. B. 2001. *Regularity in Semantic Change*. Cambridge: Cambridge University Press.
- Wu, Guo. 2005. The discourse function of the Chinese particle ne in statements. *Journal of the Chinese Language Teachers Association*. 40(1): 47-82.
- Zhu, De-Xi. 1982. *Yufa Jiangyi* [Lecture Notes on Grammar]. Beijing: Commercial Press.