

Research Article

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Mirativity in Mandarin: The Sentence-Final Particle *Le* (了)

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Abstract: Mirativity is a distinct grammatical category. In the literature, no mirative marker has been identified so far in Mandarin Chinese. This paper aims to argue that Mandarin Chinese is a language that has grammatical means of expressing mirativity. The sentence-final particle *le* (SF *le*) in Mandarin is a mirative marker in its own right. It encodes the information as newsworthy or surprising and occurs with different time references and illocutions. Based on the data from SF *le*, this paper extends the definition of mirativity given by Hengeveld & Olbertz (2012) by proposing that mirativity can not only be targeted towards either the speaker or the addressee, but also towards both. Lastly, it is argued that mirativity should be accounted for at the layer of Communicated Content at the Interpersonal Level in Functional Discourse Grammar.

Keywords: mirativity, sentence-final *le*, Functional Discourse Grammar, Communicated Content

1 Introduction

Mirativity “characterizes a proposition as newsworthy, unexpected, or surprising” (Hengeveld & Olbertz 2012: 488). It is only in recent years that mirativity has been recognized as an independent grammatical category distinct from evidentiality (DeLancey 1997, 2001, 2012; Aikhenvald 2012; Hengeveld & Olbertz 2012). Ever since DeLancey (1997), mirativity has been attested in a wide range of languages which, however, differ in the means of expressing it. It has been found that mirative meanings can be expressed by lexical means such as adverbs, and by grammatical means such as verbal affixes, sentence structure, intonation, or particles. Some languages, such as Kham, Hare, Kalasha and Korean, use grammatical markers to encode the information as newsworthy or surprising (see DeLancey 1997, 2001; Aikhenvald 2012). Other languages just have so-called “mirative strategies” (Aikhenvald 2012: 436), defined as grammatical markers of other categories whose primary function is not mirative but that can express mirative meanings in certain circumstances.

As for the Chinese languages, mirativity has received little attention in the literature. Only a few dialectal expressions have been identified as being mirative: the sentence-final *wo3* in Cantonese (Matthews 1998), the modal verb *dai* in the Jin dialect (Zong 2015), and some verbs of saying in the southern Fujian dialect (Chang 1998), the Shanghai dialect (Tao & Li 2009), the Suzhou dialect, and the Ningbo dialect (Wang 2013). With regard to Mandarin Chinese, the lexical expressions *zhi-shi* ‘only be’ (Wang *et al.* 2013) and *zen-me* ‘how’ (Liu 2015) are found to be mirative in certain circumstances but their primary meaning is something else.

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Grammatical means to express mirativity, however, have not been identified so far. What has been touched upon in the literature is the aspectual marker *le*, which is said to have a mirative overtone in restricted contexts (Zhang 2013). Therefore, according to the current literature, Mandarin seems to be the kind of language that only has mirative strategies.

Functional Discourse Grammar (FDG, Hengeveld & Mackenzie 2008) proposes a hierarchical Tense-Aspect-Modality/Mirativity-Evidentiality-Polarity (TAMEP) framework (Hengeveld 2017) in which all grammatical categories are hierarchically ordered and each grammatical category captures one or more layers. No consensus has been reached as to which layer mirativity pertains to. Besides, in the definition given by Hengeveld and Olbertz (2012), mirativity is proposed to be targeted towards either the speaker or the addressee.

This paper aims to argue, first of all, that the sentence-final particle *le* (henceforth SF *le*) is a mirative marker in its own right and that Mandarin Chinese is thus not a language that only has mirative strategies. Secondly, based on the discussion on SF *le*, I will extend the definition of mirativity given by Hengeveld and Olbertz (2012) in the sense that mirativity is not only targeted towards either the speaker or the addressee, but can also be targeted towards both in certain circumstances. Lastly, I will discuss which layer mirativity should pertain to in the TAMEP framework of FDG by exploring SF *le*'s hierarchical relationships with other sentence-final particles.

The organization of this paper is as follows. Section 2 identifies SF *le* as a mirative marker and Section 3 discusses SF *le*'s properties. Section 4 argues that mirativity may be targeted towards both the speaker and the addressee. Section 5 discusses the layer that mirativity pertains to in FDG's TAMEP framework. Finally, the conclusions of this paper are presented in Section 6.

To obtain contextualized data, the examples in this paper, if not otherwise stated, are taken from the CCL corpus¹, the Peking Corpus created by the Center for Chinese Linguistics, which contains both a sub-corpus of Vernacular Mandarin and a sub-corpus of Modern Mandarin. The latter is the one that I retrieved examples from.

2 SF *le* is a mirative marker in its own right

The analysis of the grammatical marker *le* in Mandarin Chinese has always been a heated and controversial topic. The majority of researchers agree that there are two different kinds of *le*. *Le1*, the perfective aspect marker, encodes completion; *le2*, the sentence-final particle, is a mood auxiliary that indicates a new situation or change of state. A few other linguists (Shi 1992; Shen 1995; Zhang 2003) oppose such a distinction as they believe that the two *les* are by nature the same thing with the same functions although they occupy different sentential positions.

I agree with the distinction between *le1* and *le2*. One reason is that both *les* can occur in a single sentence, as can be seen in example (1):

(1) *ta-men dao-da le shan-ding le.*
 2PL reach PFV mountain.top MIR
 'They reached the top of the mountain, (which they hadn't before)' (Soh 2014: 130)

The first *le* is a post-verbal perfective marker indicating that the action *dao-da* has completed whereas the second *le* is a sentence-final particle indicating that the newly occurred event is worthy of notice. The split can also be seen clearly in the marker's history of grammaticalization. It was originally a verb that meant 'finish' and developed an aspectual use around the Tang Dynasty (618-907). Later, during the Song Dynasty (1127-1279) the aspectual use further developed into an SF use (Mei 1981; Cao 1987). So the aspectual *le* and the SF *le*, though they originated from the same verb, eventually evolved into different grammatical formatives. This means that they now belong to different grammatical categories although still sharing

¹ The corpus is retrievable from <http://ccl.pku.edu.cn/corpus.asp>.

the same form. Therefore, to categorize *le1* and *le2* as the same thing simply ignores their evolutionary difference in grammatical functions.

In the literature, opinions diverge immensely on SF *le*'s functions as well as on which grammatical category it falls into. It is considered to be a mood/modal marker (Lü 2015: 321; Peng 2009; Xu 2008), a tense marker (Liu 2002; Chen 2005), an aspect marker (Jin 2003), and an evidential marker (Shi 2000); it has the function of completing a sentence (Lü 2016: 351; Huang and Liao 2015: 32), or signaling a “currently relevant state” (Li and Thompson 1981: 240).

However, in this paper, I will argue that SF *le* expresses the grammatical category of mirativity, encoding newsworthiness or surprise. Consider the following examples:

(2) a. *xia yu le.*

descend rain PRF.MIR²

‘It has rained (and it is still raining)’ (Zhu 2015: 209)

b. *ta tong-yi wo qu le.*

3SG agree 1SG go MIR

‘He allowed me to go!’ (Lü 2016: 352)

c. *ta gao le*

3SG tall PRF.MIR

‘He has gotten tall!’ (Li & Thompson 1981: 250)

In (2a), *le* is considered to indicate the occurrence of a new situation: it hasn't rained before but it is raining now (Zhu 2015: 209). In (2b), *le* is thought to involve a change of state (Lü 2016: 352): from “not allowing” to “allowing”. In (2c), *le* is considered by Li and Thompson (1981: 240) as signaling a changed state, by which they mean³ (ibid 1981: 250):

A good general rule is this: whenever one wishes to describe a new, *changed* state, as opposed to a *general* or *habitual* state, with an adjective, *le* should be used to imply that the state is new or newly noticed. (original italicization)

The above three interpretations of SF *le* are the most accepted and cited in the literature. There are two points to be noted. First, all three interpretations: Zhu's “occurrence of a new situation”, Lü's “change of state”, and Li and Thompson's “changed state”, share a common focus on the change from an earlier state. Change means that something new occurred, which might not be part of the knowledge of the speaker or the addressee. In this case, to express change is actually and ultimately to present the information as newsworthy. Functioning to encode newsworthiness of the information, SF *le* then falls into the category of mirativity.

The focus on “change” in all three interpretations gives the impression that to indicate change is SF *le*'s only function. However, this identification is partial and problematic because SF *le* can also occur in situations where no change of state is involved. These situations are not rare occurrences. As a matter of fact, they are so frequent as to be grouped into three types as exemplified in the following:

(3) a. *lao-shi, wo zuo-wan kan dian-shi le.*

teacher 1SG last night watch television MIR

‘(For your information,) Teacher, I watched TV last night.’ (Liu 2002: 70)

² The reason why *le* is glossed here as expressing both perfect and mirativity will be given below.

³ Li and Thompson (1981: 240) see SF *le* having the function of signaling a “Currently Relevant State”, which means that “*le* claims that a state of affairs has special current relevance with respect to some particular situation”. They provide five situations where SF *le* is used. “A changed state” is the first proposed situation. The other four are “a wrong assumption”, “reports progress so far”, “determines what will happen next” and “is the speaker's total contribution to the conversation at that point”. All of them can also be re-interpreted from the perspective of mirativity. Since Li and Thompson published their grammar in 1981 when mirativity hadn't yet gained a noticeable recognition, it was impossible for them to label sentential *le* as mirative but their explanations are definitely very close to those of mirativity. For more details, see Li & Thompson (1981: 244-290).

b. *zhe ge gua hen tian le*
 this CL melon very sweet MIR
 'This melon is very sweet!' (Li & Thompson 1981: 242)

c. *chi fan le*.
 eat food MIR
 'It's time to eat/ Dinner is ready!' (Lü 2016: 352-353)

The first type is a statement such as (3a), in which *le* does not affect the occurrence of the event. The speaker simply states what he/she did last night, probably in response to a teacher's inquiry. No change is denoted. The second type is a sentence with an adjectival predicate modified by a degree adverb such as *hen* 'very'⁴ as in (3b). With or without *le*, the sentence indicates no change but simply states the fact that the melon is sweet. The third type is about an action that is asked to be taken as in (3c). For the third type, Lü (2016: 352-353) points out that SF *le* can indicate that the state is about to happen such as in (3c), which would mean "it is permitted to eat or it's time to eat" (ibid). In my view, whether the proposed action will happen or not doesn't depend on the occurrence of *le*. Without it, the sentence still functions as an imperative and the eventual realization of the desired action depends on the willingness of the addressee. Therefore, it is incorrect to say that *le* can encode future change in imperatives.

All these three types of sentences, instead, can be explained from the perspective of mirativity. In (3a), the speaker might be explaining why he/she hadn't finished homework, so the speaker presents the statement 'I watched television last night' as something newsworthy to the teacher. As for (3b), Li and Thompson (1981: 243) provide four possible occasions for the speaker to use *le*, which all involve certain kinds of newsworthiness of the sweetness of the melon either for the speaker or the addressee. Although there is no change indicated in the situations in (3a) and (3b), this does not mean that the speaker or the addressee may not find the information newsworthy. When it comes to (3c), *le* can indicate newsworthiness when the speaker announces that dinner is ready and it is time to eat, which may not be known to the addressee at the time of speaking.

All in all, no matter whether the sentences where SF *le* occurs involve a change or not, in all the above examples, *le* always denotes the information to be newsworthy. To present the information as such is one of the major functions of mirativity as defined in Section 1. Hence, there is no doubt that SF *le* has a mirative use. But, is this mirative use secondary? The answer is no. The difference between the same sentence with or without SF *le* lies in the absence or presence of the mirative meaning, as in all three examples of (3). No other subtle meanings such as tense, aspect or modality can be detected with its occurrence. This exclusive mirative use clearly shows that SF *le* is a mirative marker in its own right.

However, except for these clearly exclusive cases, the analysis of SF *le* is slightly complicated by the fact that in certain contexts it may simultaneously express perfective or perfect as well. Consider for instance the examples in (4).

(4) a. *suo-yi wo ju-jue le*
 so 1SG refuse PFV.MIR
 'So I refused!'

b. *xie-xie ni, wo zhi-dao le*
 thank 2SG 1SG know PRF.MIR
 'Thank you. I know it (I didn't know but I know it now).'

As these examples show, the sentence-final *le* not only denotes that the speaker is presenting some new information, but also expresses the perfective aspect (the speaker did something in the past and the activity has been completed) as in (4a) and the perfect aspect (the speaker came to know something in the past and this action continues to the present) as in (4b). Note that in both (4a) and (4b) *le* simultaneously occupies the postverbal and the sentence final position.

⁴ What should be noted is that the degree adverb is essential to this type of sentences because if *hen* is removed, *le* can indicate a change of the sweetness of the melon.

In order to show that SF *le* does express mirativity, despite the fact that in certain circumstances it may acquire additional meanings, I will adopt the tests proposed by Peterson (2017: 325-333) to see if the mirative meaning of SF *le* is entailed or implicated. The hypothesis of the first test, which employs negation, is that if SF *le* encodes the information as newsworthy or surprising, then it is not part of the propositional content itself and thus the negation of the predicate will not affect the mirative meaning of *le*. Let's take (2a) as an example, in which the SF *le* is a combination of a temporal *le* and a mirative *le*, because examples like this can show more clearly whether the mirative meaning is implicated by the temporal use. The negation results in (5), in which the mirative meaning is retained. However, what's interesting is that the negation of the predicate causes the loss of *le*'s temporal meaning, which definitely reveals that SF *le*'s mirative meaning is not a parasite of its temporal use.

(5) *bu xia yu le.*
 NEG descend rain MIR
 'It stopped raining.'

We can also use subsequent negative sentences to test whether SF *le* presents the information as newsworthy or not. The information is new when the speaker suddenly discovers the rain, or when the addressee doesn't know about the rain, or when they both discover the rain at the same time. These three situations can be indicated by the use of different pronouns as in (6). (6a) shows the compatibility of *le* with both the new contextual situation and the explicit statement of lack of knowledge. The unacceptability of (6b) shows the contradiction between *le* and the new contextual situation and the explicit statement of lack of knowledge. This can be further corroborated by the fact that when *le* is removed from (6b) as in (6c), the sentence becomes acceptable. The inseparability of *le* with new situations, as well as its dissociation with the negation of the predicate clearly indicate that SF *le*'s marking of new information is not implicated but part of its meaning.

(6) a. *xia yu le, wo/ni/wo-men dou bu zhi-dao.*
 descend rain PRF.MIR 1SG/2SG/1PL even not know
 'It has rained. I/you/we even didn't know.'
 *b. *xia yu le, wo/ni/wo-men zhi-dao de.*
 descend rain PRF.MIR 1SG/2SG/1PL know CERT
 'It has rained. I/you/we already knew.'
 c. *xia yu, wo/ni/wo-men zhidao de.*
 descend rain 1SG/2SG/1PL know CERT
 'It has rained. I/you/we already knew.'

Another test I will use is the one that uses a shift of context. Mirativity occurs in communicating new or surprising situations. The hypothesis is thus that if we change the new or surprising situation into a given one, the presence of *le* becomes infelicitous. Suppose the speaker and the addressee are walking in the rain and suddenly the rain stops. In this case, the rain is not new to either of them and thus cannot be marked by the first *le* in (7a) while the absence of it makes the sentence acceptable as in (7b). What is even more revealing is that it is grammatical to use the second *le* to mark the new stopping of the rain in both (7a) and (7b).

(7) a. **gang-cai xia yu le, xian-zai yu ting le*
 just.now descend rain MIR now rain stop PFV.MIR
 'It rained a moment ago (we didn't know). Now it stopped.'
 b. *gang-cai xia yu, xian-zai yu ting le*
 just.now descend rain now rain stop PFV.MIR
 'It rained a moment ago. Now it stopped (a little unexpected).'

All of the above tests clearly show that SF *le* is new situation-specific. Therefore, its mirative meaning is not implicated, but primary and entailed.

All languages can express the concept of mirativity, but, “[as] is the case with evidentiality, languages differ not in whether they have means to express it, but in the degree to which its expression is integrated into the grammar” (DeLancey 1997: 49). The fact that SF *le* is a purely mirative marker shows that mirativity has been integrated into the grammar system of Mandarin, which reveals that Mandarin Chinese is not a language that has only mirative strategies.

3 Properties of SF *le*

In Section 2, SF *le* has been identified as a mirative marker. In this section, I describe and discuss some of its specific properties as well as its connection with the aspectual marker *le*.

3.1 Semantic domain of SF *le*

Researchers differ in their views and terminologies on the semantic domain of mirativity. For instance, DeLancey (1997: 33) considers mirativity as marking the information as new or surprising; Hengeveld and Olbertz (2012: 488) propose that mirativity presents the proposition as newsworthy, unexpected or surprising. Aikhenvald (2012: 473) adopts a broader view, suggesting that mirative meanings should include the following: (i) sudden discovery, sudden revelation or realization; (ii) surprise; (iii) unprepared mind; (iv) counter-expectation; (v) new information. Peterson (2017: 313) restricts mirativity to surprise. Aikhenvald (2012)’s first category is what DeLancey (1997) and Hengeveld & Olbertz (2012) label as “new or surprising”. Hence, the core values of mirativity defined by all are “new and surprising”, although they are defined in different terminologies.

Whether the information is new or surprising involves a matter of degree. There is always an element of newness if the information is surprising. The only way to disentangle them is to resort to the specific context to see the speaker’s primary communicative intention. Let’s again take (2a), repeated below, as an example:

(2) a. *xia yu le.*
 descend rain PRV.MIR
 ‘It has rained (and it is still raining)!’ (Zhu 2015: 209)

The context might be the following: two colleagues are about to leave the office when one of them opens the door, discovering that it is raining outside, and says (2a) with the intention of calling the addressee’s attention to this newsworthy information, probably suggesting the addressee to bring the umbrella with him/her. In this case, the mirative marker *le* may not reach the degree of surprise. But if it happens in a city where it seldom rains, or the weather broadcast predicts no rain, (2a) surely may indicate that the rain is surprising.

With regard to “new” or “newsworthy”, I prefer the term *newsworthy* because it emphasizes the noteworthy aspect of the information and implies that the information might be of particular interest to the addressee. Besides, in a cluster of sentences each of which might contain new information, the speaker only uses a mirative marker to mark the one which he believes to be worthy of special attention. In other words, the speaker doesn’t encode every piece of information as new; he/she only marks those that are believed to be noteworthy. Therefore, the term given by Hengeveld & Olbertz (2012) more explicitly and accurately captures this phenomenon.

In the case of SF *le* in Mandarin, it encodes the two core meanings of mirativity: newsworthiness and surprise. In addition to the examples given above, SF *le* in example (8) encodes the information as newsworthy.

(8) (One day, King Louis XI went out hunting after he had been assured by his astrologist that the weather would be fine that day. When he was riding in the woods, suddenly he found he was lost. Just at this moment, an old farmer was passing by, so the king asked him the way. The old farmer pointed him the way and added,)

'huo-ji kuai xie gan lu ba, ma-shang yao xia yu **le**.'
 buddy quickly a.little hurry journey MIT soon will descend rain MIR
 'Buddy, hurry on with your journey. It is going to rain soon!'

In (8), the farmer assumes that the king doesn't know it is going to rain and no one would find it desirable to ride in the rain. The information about the rain might be very important to the king, so the farmer uses SF *le* to present the information as newsworthy to the king.

Encoding newsworthiness is the most common function of SF *le*. However, when the occasion arises, SF *le* can also denote surprise as shown in (9).

(9) (In an interview between a hostess and an actress, the hostess mentions an occasion when the actress was telephoned by her friends asking her to pay the bill for the dinner which she had not been invited to. The actress said she couldn't remember it. The hostess asked,)

'ni zi-ji dou wang **le**?'
 2SG yourself even forget PRF.MIR
 '(To my surprise) Even you yourself have forgotten it?'

In (9), the speaker cannot believe that the addressee would forget such an unfavorable treatment, so when the addressee tells her she couldn't remember, she expresses her surprise by using *le*.

Based on the above discussions, I therefore conclude that the semantic domain of SF *le* covers newsworthiness and surprise.

3.2 Temporal reference

Mirativity is related to temporal reference. In the literature, a mirative event is considered to happen most often in the present or recent past (DeLancey 1997), as it is believed that otherwise the newness would be lost. However, mirative markers are also found to occur with past (see the example given in DeLancey (1997: 47)) and future reference (Aikhenvald 2012).

SF *le* can occur in all basic temporal domains: past, present and future (Li & Thompson 1981: 290), as shown respectively in (10), (11) and (12). In (10), the event in which the speaker was cheated had already happened at a certain moment in the past.

(10) (A sales girl enticed the speaker to buy a stereo, saying that their price was the lowest. Later the speaker found out that their price was actually the highest.)

jie-guo wo you shang-dang le
 result 1SG again cheated PFV.MIR
 'It turned out that I was cheated again!'

SF *le* can also occur in a present time context, as in (11).

(11) (A house, which used to be the location of a famous club,)

xian-zai shi bei-shi-da jiao-gong shu-she le.
 at present COP Peking Normal University faculty dormitory MIR
 'At present, (this house) is the dormitory for faculty of Peking Normal University!'

Xian-zai ‘present’ is a lexical phrase to indicate this is the present situation⁵. The speaker is stating a current situation to the addressee, to whom this might be novel in the sense that it has not been integrated into his/her knowledge structure at the time of speaking. SF *le* can also occur in a future context. In (12) the train is just going to leave, so the event hasn’t happened yet. The word *yao* ‘will’ explicitly indicates that this is a future temporal reference. In this case, the addressee may not know or realize that the train will leave very soon, so the speaker emphasizes this new information in order to urge the addressee to get on quickly.

(12) *huo-che kuai yao kai le*
 train fast will operate MIR
 ‘The train is about to leave!’ (Li & Thompson 1981: 282)

The fact that SF *le* can occur in the present, past and future makes it inappropriate to label SF *le* as a marker of past tense (Liu 2002) or as a marker of future tense (Chen 2005).

The reason why SF *le* can occur with all kinds of temporal reference might be the following. What happened in the past may be suddenly discovered or realized and thus newsworthy or surprising to the speaker. In languages such as Kalasha, past tense verbs can have a mirative meaning when used in the inferential sense (DeLancey 2012: 532). Also, the current situation may be new or surprising to the speaker because it is just perceived or realized at the moment of speaking and it has not been part of the knowledge structure of the speaker to the outside world. In Tibetan languages, direct evidentials are associated with the mirative meaning of novelty or discovery (DeLancey 2012: 552). Similarly, it is not strange to present some future state or event as new or surprising, as what will happen has not been integrated into the present knowledge of the interlocutors.

On the surface, newsworthiness and surprise might be closely related to the time frame of an event; however, the fact that mirative markers can occur in all kinds of time frames reveals that mirativity is not determined by the time of occurrence but by whether the information presented is newsworthy or surprising to the interlocutors involved.

3.3 Illocutions

Illocution or ‘sentence type’ is defined as “a coincidence of grammatical structure and conventional conversational use” (Sadock and Zwicky 1985: 155, cited in Hengeveld & Mackenzie 2008: 70). However, it is very difficult to classify Mandarin sentence types from the grammatical perspective as there are almost no obligatory inflectional indications to mark the Illocution. Usually, it is acknowledged that there are four types of Illocutions in Mandarin: declarative, interrogative, imperative and exclamative. Huang and Liao (2015: 32) propose that SF *le* has the function of expressing either the declarative mood or the imperative mood as in (13) and (14).

(13) *shu-ye huang le*
 leaf yellow PRF.MIR
 ‘The leaves turned yellow!’

(14) *bie shuo-hua le*
 PROH talk MIR
 ‘Stop talking, (will you?)’

(13) states the event that the leaves turned yellow, so it is a declarative; (14) is meant to request the addressee to stop doing something, so it is an imperative. Without *le*, (13) is still a statement which means that the

⁵ Although the sentence may imply a change that the house used to be a club but now it is a faculty dormitory, the lexical expression *xian-zai* explicitly indicates that the sentence has a present tense reference.

leaves are yellow and no change of color has occurred; and (14) is still a command issued by the speaker. Hence, it is not appropriate to attribute their illocutionary forces to the occurrence of SF *le*. In (13), SF *le* is used by the speaker to indicate the newness of the color of the leaves while in (14), SF *le* is used to remind the addressee of the importance of keeping silence with the assumption that the addressee may not know how to behave properly in that situation. Therefore, both an assertion and an imperative can be presented by the speaker as mirative.

In many languages, a mirative marker can occur in interrogatives, usually in the form of a rhetorical question (Aikhenvald 2012: 448; Hengeveld & Olbertz 2012: 497). This is also true for SF *le*.

(15) (The husband is asking his wife furiously about the outcome of his gambling),

ni *you* *shu* ***le*?**
you again lose PFV.MIR
 'Did you lose again?'

In (15) the husband may have already figured out that his wife lost again. As such, (15) is not intended to be a true question to solicit an answer but sounds like a furious rebuke. SF *le* here is used to show the husband's surprise at his wife's loss at gambling.

(16) (The village head is trying to build a new dam. He lets his son, instead of other villagers, do the most dangerous work and when his son gets hurt and bleeds all over his face, his wife blames him,)

ni *wei-le* *yi* *tiao* *ba*, *lian* *hai-zi* *dou* *bu* *yao* ***le*?**
 2SG for one CL dam even child even not want MIR
 'For a dam, you even wanted to sacrifice your own son?'

(16) is also intended to be a criticism rather than a true question. Normally, nobody would sacrifice his own son; hence it is not intended to be answered at all. SF *le* is used to indicate the wife's great surprise.

SF *le* can also occur in exclamatives. Exclamatives are used to express the speaker's emotions about a particular state of affairs instead of simply asserting its existence (Risselada 1993: 264). Phonetic experiments show that exclamatives in Mandarin have obvious prosodic features such as strong sentential stress, extended duration and intense tones (Chen 2007: 50). Very often, scalar degree adverbs are involved in exclamatives.

(17) (A girl is watching a movie. In the middle of it, she exclaimed loudly,

zhe *bu* *dian-ying* *tai* *gan* *ren* ***le*!**
 this CL movie too touching people MIR
 'This movie is so touching!'

(17) is packed with strong emotion which is expressed through the scalar degree adverb *tai* 'too' and the prosodic contour. If *le* is removed but the prosodic contour is maintained, (17) is still an exclamative. If *tai* is changed into *hen* 'very' and the prosodic contour is removed, (17) is just a statement presented as new information by the speaker. If SF *le* is furthermore removed from the sentence, the information is presented as a fact without any indication of novelty. As such, (17)'s status as an exclamation is not determined by the occurrence of SF *le*. The speaker's purpose of using SF *le* is to present the emotional evaluation about the movie as a new piece of information worthwhile to be noticed by the addressee.

The above discussion shows that SF *le* can occur in many kinds of sentence types in Mandarin, namely declaratives, imperatives, interrogatives and exclamatives. Whether this property justifies SF *le* as a marker at the FDG Discourse Act layer will be discussed in section 5.

3.4 With aspectual *le*

As illustrated in Section 2, the aspectual use of *le* falls into two types: a post-verbal perfective marker and a sentence-final perfect marker. The literature dwells on the disentanglement of the perfective *le* and the sentence-final *le* (Zhang 2013: 32-33; Li & Thompson 1981: 296-300; Zhu 2015: 209-210; Lü 2016: 351), especially when the post-verbal and the sentence-final positions coincide. As a third use of *le*, the perfect *le*, is also sentence-final, indicating a states-of-affair that started in the past and continues to the present time, the question arises as to how to disentangle the three *les* when *le* occurs at the sentence-final position.

According to their Aktionsart, states of affairs may be telic and atelic situations. The former involves completion while the latter does not. When the situation is telic, the post-verbal *le* that occurs at the sentence-final position could be a combination of perfective *le* and mirative *le*.

(18) (A poor family was in a difficult situation.)

neng chi de dou chi le
can eat ATTR all eat PFV.MIR
'All edible things were eaten.'

In (18), the activity *chi* 'eat' has been completed and this information is unknown to the addressee, so *le* has both a perfective and mirative reading.

However, when the situation is atelic, *le* could be just a mirative marker or a combination of perfect *le* and mirative *le*, as in (19a) and (19b).

(19) a. *zhe hui ke mei fa chi le*

this time but no way eat MIR
'But this time (the duck) couldn't be eaten anymore.'

b. *wo er le*

I hungry PRF.MIR
'I have become hungry. (Anything I can eat?)'

Neither (19a) nor (19b) denotes the completion of an event. In (19a), the activity of eating has not been given a terminal point. What is stated is the fact it is difficult to eat that duck, not about the difficulty in eating up the duck; therefore, it is unrelated to the matter of completion. The same is true for (19b), in which *er* 'hungry' is a state that began in the past and continues to the time of speaking. The difference between (19a) and (19b) is that *le* in (19a) is mirative while *le* in (19b) expresses both mirativity and perfect.

In the cases above *le* is both post-verbal and sentence final. When there is an argument that occurs after the verb, what should be clarified is whether *le* is mirative or a combination of perfect and mirative. The easiest case is that when the situation is telic, *le* is only mirative as a perfect cannot occur in a telic situation as in (20), where the action *gei* 'give' has been completed in the past and doesn't continue.

(20) (To a friend who has asked whether the speaker needs more money to pay the salesperson)

wo yi-jing gei ta liang bai kuai qian le
1SG already give him/her two hundred CL money MIR
'(But) I already gave him/her 200 yuan!' (Li & Thompson 1981: 265)

However, in atelic situations, *le* could be a mirative or a combination of mirative and perfect. As for the exclusive mirative use, it occurs in imperatives or situations that are incompatible with a perfect reading as exemplified by the following.

(21) a. *da-jia dou zuo, zan-men kai hui le*

everyone all sit 1PL open meeting MIR
'Everyone, sit down. Let's begin our meeting!'

b. *wan-shang de jiao-zi you dian xian le*
 night ATTR dumpling have a.little salty MIR
 'The dumplings I had last night were a little salty!'

c. *mei cuo, shi geng zao yi-qian de shi le*
 not wrong COP more early past ATTR thing MIR
 'Right! It is about something that happened much earlier.'

d. *ni zou le wo-men jiu yao xiang ni le*
 2SG go PFV 1PL then will miss 2SG MIR
 'When you are gone, we shall miss you!'

As for the combination of a perfect and mirative reading, it occurs in atelic situations where an event started in the past and continues to the present time. For instance, in (22), the state of liking can undergo a change from disliking to liking in the past, and at the time of speaking this changed state still continues.

(22) *Xiao Ming ye xi-huan tiao-wu le*
 Xiao Ming too like dance PRF.MIR
 '(You may not know that) Xiao Ming has come to like dancing, too.' (Lü 2016: 352)

The functions of *le* at the sentence-final position are summarized in Figure 1.

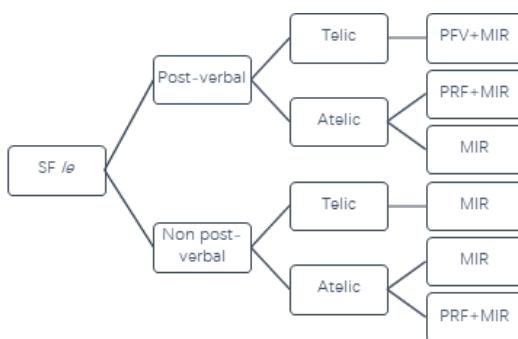


Figure 1. The functions of *le* at the sentence-final position

The above are cases in which a single *le* may have multiple readings in a sentence. What is more complicated is that two *les* can occur in a single sentence, as illustrated at the beginning of Section 2. In this case, the first *le* is a perfective marker while the second *le* is a mirative marker if the event has completed, or a combination of both a perfect and a mirative marker if the event still continues. In (23a), the activity of signing up is completed, which makes it impossible for the sentence-final *le* to have a durative reading, thus eliminating the perfect interpretation of *le* from the sentence. By contrast, in (23b), the activity of reading continues to the present time, which consequently licenses the perfect reading of the second *le*. What is especially interesting in the case of (23b) is that not only three functions of *le* are simultaneously present in a single sentence, but that the perfect reading of the sentence leads to the cancellation of the perfective reading of the post-verbal *le*. This can be seen more clearly in example (23c), in which the removal of the sentence-final *le* results in a clear perfective reading of post-verbal *le*.

(23) a. *ta yi-jing bao le ming le*
 3SG already sign.up PFV name MIR
 'He has already signed up!' (Lü 2016: 353)

b. *zhe ben shu wo kan le san tian le*
 this CL book 1SG read PFV three day PRF.MIR
 'I have been reading this book for three days.' (ibid)

c. *zhe ben shu wo kan le san tian*
 this CL book 1SG read PFV three day
 'I read this book for three days (I stopped reading).'

In the literature, the dual reading of sentence-final *le* is explained from the perspective of the efficiency of communication (e.g. Huang & Liao 2015: 34) as it is unnecessary to write two *les* that have the same origin and share exactly the same form. This might be true, but here I would like to propose that the fact that a single particle has three different uses may be the result of grammaticalization. In many other languages, aspect and mirativity share a single form and are intertwined. DeLancey (2001: 378) points out that perfect and perfective constructions have a close relation with mirativity:

In general, we seem to be dealing here with originally perfect or perfective constructions, which have acquired a reading combining inferential evidential status and mirativity. These are Guentchéva's (1996a:12) 'formes construites à partir du parfait', for which she lists as examples Albanian, Western Armenian, Bulgarian, Georgian, Macedonian, Persian, Tadzhik, Turkish, and Nepali.

Hengeveld and Olbertz (2012: 499) suggest that there is a path of grammaticalization from resultative aspect (perfect) to mirativity as the results from past events that have not been witnessed or have been forgotten may well be surprising or unexpected. According to FDG, both perfect and perfective aspect are at the Representational Level, a level considered to be lower than the Interpersonal Level. Perfect aspect pertains to the layer of the State-of-Affairs, which is a layer higher than that of Configurational Property at which perfective aspect operates (Kees Hengeveld, p.c.). The grammaticalization pathway is from the lower layer to the higher layer or from a lower level to a higher level (Hengeveld 2017), which means that a perfective marker can grammaticalize into a perfect marker by moving one layer up. Mirativity pertains to the Interpersonal Level, such that the perfect marker can grammaticalize into a mirative marking by moving one level up (see Section 5 for more details). Hence, it can be hypothesized that the grammaticalization pathway of *le* is the following:

(24) MIR *le* < PRF *le* < PFV *le*

The fact that the perfective marker is still there though indicating no completion as in (23b) may be a manifestation of this direction of grammaticalization.

4 For both the speaker and the addressee

DeLancey (1997: 33) defines mirativity as new or surprising to the speaker only, as he believes that mirativity marks "the status of the proposition with respect to the speaker's overall knowledge structure". (25) is a Kalasha example given by DeLancey (1997: 47), who explains that (25) "could be said by someone who is returning from the wide world with stories for his fellow villagers".

(25) *amerika' bo hu'tala dur kai si'-an hu'la*
 America very high house make PST.PFV-3PL become.PST.INFER.3
 'In America there are very tall buildings.'

Hengeveld and Olbertz (2012: 488) argue that (25) evidently shows a context in which "the proposition is not one for which the speaker does not have a psychological preparation, but rather one that is new for the addressee", because the speaker's information about the tall buildings in America is old to himself but meant to be newsworthy to the addressee at the moment of speaking. With mirative examples from six languages, Hengeveld and Olbertz (ibid) redefine mirativity as a linguistic category that "will often be used in circumstances in which the proposition is newsworthy, unexpected, or surprising for the speaker, but may also be used when it is newsworthy, unexpected, or surprising for the addressee".

It is true that mirativity may be targeted towards the speaker or the addressee as shown in the Mandarin examples above. Examples such as (2c), (9), (15), (16), (17), and (19a) may be used in circumstances where the information is newsworthy for the speaker, whereas examples such as (2b), (3a), (3c), (8), (10), (11), and (14) may be used in circumstances where the information is newsworthy for the addressee. Let's take (2a) and (2b) again for illustration.

(2) a. *xia yu le.*
 descend rain PRF.MIR
 'It has rained (and it is still raining)!'
 b. *ta tong-yi wo qu le.*
 3SG agree me go MIR
 'He allowed me to go!' (Lü 2016: 352)

In (2a), the information about the rain is directly perceived or inferred by the speaker on the basis of evidence such as the sound of the rain or the wet ground, etc. In this sense, it is new to the speaker. In (2b), the allowing does not take place at the moment of speaking but before it, so it is old information to the speaker. The speaker presents it as newsworthy for the addressee.

However, there are circumstances in which the information might be newsworthy, or surprising for both the speaker and the addressee, as in examples such as (26).

(26) (Someone deliberately set fire to the granaries. The fire became increasingly fierce. Suddenly the guards of the granaries spotted it and yelled out loud,) 'shi huo le! shi huo le! shi huo le!' catch fire PRF.MIR catch fire PRF.MIR catch fire PRF.MIR 'On fire! On fire! On fire!'

The information about the emergency is new or surprising for both the speaker and the addressee. It has not been part of either one's knowledge about the world before the moment of discovery. The sentence is uttered exactly at the moment of the guards' direct perception, so it is new and surprising for them. The guards utter the sentence loudly and repeatedly not only because they are greatly surprised at the fire, but also, or more so, because they are issuing a warning to anyone around in the hope to get people to extinguish the fire. Obviously, the warning is new and surprising for the addressees as well. The same is true of example (12), which is repeated below.

(12) *huo-che kuai yao kai le.*
 train fast will operate MIR
 'The train is about to leave!'

In (12), the speaker may just find out the train is about to leave either by looking at the clock or some other evidence of the train's leaving. If the speaker says so exactly at the moment of discovery, it is new for him/her. As a passenger has to get on the train before the train leaves, communicating this new information to the addressee is very necessary. Therefore, the information may be newsworthy for both parties.

Similarly, in (27), the speaker suddenly perceives the cops and at the same time yells the new information to the two men who are still in the middle of a fight without any knowledge of the cops' imminent arrival.

(27) a. (Two men have a quarrel which eventually leads to a fight. Many passers-by stop and watch. Suddenly someone yells,) 'jing-cha lai le!' cop come PRF.MIR 'The cops are coming!'

As a matter of fact, this is not an idiosyncratic phenomenon. DeLancey (2012: 535) provides the following Kham example and explains that the mirative construction in (28) denotes newness to the speaker as it “can be used when the information being related is perceived at first hand” and “said when the speaker had just seen a leopard which he and the addressee were looking for”.

(28) *nð-kð zð ci syā:-dð u-li-zya-o oleo sani*
 there.at EMPH CEP sleep-NF 3-be-CONT-NMZ MIR CONF
 ‘He’s right there sleeping, see!’

However, if both the speaker and the addressee were looking for the leopard, then perceiving the leopard should be new and important for both of them. When the speaker finds it, it is surely novel information for him. Since he is the first one who spots the leopard, it couldn’t be old information for the addressee either, who would be as much surprised as the speaker. Actually, the speaker utters (28) also with the intention to convey this novelty to the addressee. Aikhenvald (2012: 448-466) also mentions that in a number of languages such as !Xun, Quechua, Galo and Okomobi, mirative expressions mark information as new, unexpected or surprising for both the speaker and the addressee.

This means that mirativity is a grammatical category that characterizes the information as newsworthy, unexpected or surprising for the speaker, the addressee, or for both the speaker and the addressee. The circumstances in which the information is new or surprising for both parties have to meet two criteria. The first one is that there should be almost no time interval between the moment of perception or discovery and the moment of speaking; otherwise, as time passes by, the information may lose its novelty for the speaker. The second one is that the speaker has the intention to present the information as newsworthy to the addressee, which is particularly the case when the circumstances require him/her to do so. Otherwise, it would just be encoded to be newsworthy to the speaker him/herself.

5 Mirativity in Functional Discourse Grammar

Functional Discourse Grammar distinguishes four levels of representation, among which are the Interpersonal and Representational Levels, for pragmatic and semantic analysis respectively (Hengeveld & Mackenzie 2008). For each level, there is a layered hierarchical structure (see Figure 2). At the Interpersonal level, there are five hierarchically related layers: Discourse Act > Illocution > Communicated Content > Referential Subact > Ascriptive Subact. At the Representational level, layers are organized hierarchically as well, with the Propositional Content as the highest layer and the Property as the lowest. TAMEP (Tense, Aspect, Modality, Mirativity, Evidentiality, and Polarity) categories are distributed across the layers at both levels. Each grammatical (sub)category, including mirativity, pertains to certain layer(s) and level(s).

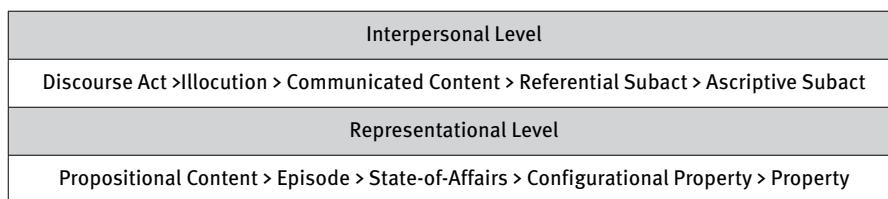


Figure 2. Layers at the Interpersonal and Representational Levels

With regard to mirativity, there is disagreement in FDG as to the Level and layer it pertains to. In Hengeveld & Mackenzie (2008: 72), mirativity was considered to be an Illocution at the Interpersonal Level. As an Illocution, mirativity is thus presented along with other Illocutions such as Declarative and Interrogative, expressing the speaker’s “surprise about the Propositional Content evoked by the Communicated Content”. However, Olbertz (2012: 146) proposes that mirativity is not an Illocution but pertains to the layer of the

Propositional Content at the Representational Level. She considers mirativity as a mirative modality which functions along epistemic modality and evidentiality. Hengeveld (2017: 29) assigns mirativity to the slot of the Communicated Content at the Interpersonal Level but without any further explanation. Here, basing on the properties of SF *le* in Mandarin as well as its relationships with other sentence-final particles, I will argue that mirativity indeed pertains to the layer of Communicated Content at the Interpersonal Level.

First of all, as for the level at which mirativity operates, the Interpersonal Level should be selected. The Interpersonal Level represents a linguistic unit in terms of its communicative functions and the Representational Level in terms of its semantic categories (Hengeveld & Mackenzie 2008: 6). When analyzing the mirative particle *lō* in Hare, DeLancey (1997: 40) remarks, “it is the speaker’s discovery of the fact, rather than the fact itself, which is actually being communicated”. Hence, mirativity should not be accounted for from the perspective of a semantic category.

Furthermore, mirativity is meant to regulate the interaction and the knowledge exchange between the speaker and the addressee. As argued in Section 4, the function of mirative expressions is to mark the status of information as newsworthy, or surprising either for the speaker, or for the addressee, or sometimes for both. Clearly, mirativity is interaction-oriented. In other words, it is interpersonally motivated rather than simply expressing a semantic concept. Therefore, mirativity should be approached from the perspective of its communicative functions, thus at the Interpersonal Level.

This can be supported by evidence found in Mandarin Chinese. Mandarin is distinguished from many other languages in that it has a rich inventory of sentence-final particles which have a high frequency of occurrence in daily conversations and can be clustered in a restricted linear order at the end of a sentence. SF *le* is one of those frequently occurring particles. At most, SF *le* can co-occur with two other sentence-final particles as shown in the following (29).

(29) *ni yi-ding hui yuan-yi gen ba-ba chu lai wan de le ba.*
 2SG certainly will willing with Dad go come play CERT MIR MIT
 ‘You will be certainly willing to go and hang out with Dad, I suppose.’

The particle *de* can be an attributive particle or a modal marker of certainty. In (29), it is a certainty marker for the following two reasons. First, if it is an attributive particle, either a noun should be following it, or this noun could have been omitted. In (29), however, there is no noun following *de*, nor can one be reconstructed. The verb *wan* that precedes *de* still functions as a predicate of the sentence, not as a modifier to modify any physical object. Therefore, no possibly omitted noun element can be tentatively added. Second, an attributive marker is structurally essential and cannot be removed without affecting the basic meaning of the phrase. The fact that when *de* in (29) is removed, the sentence still holds, showing that *de* is a modal marker of certainty. This can be further proved by the evidence that with *de* and without *de*, the difference in meaning concerns the degree of certainty of the sentence.

As a modal maker of certainty, *de* pertains to the Layer of the Propositional Content at the Representational Level. The co-occurrence of *de* and *le* means that *le* cannot be at the same layer as expressions of the same layer are mutually exclusive and thus do not co-occur in a single sentence. The surface order of *de le* also reveals that *le* must pertain to a layer higher than that of *de*, which means *le* pertains to a layer at the Interpersonal Level.

As mentioned earlier in this section, there are five layers at the Interpersonal Level. Then, which layer should mirativity pertain to? Particle *ba* is a mitigator operating at the layer of Discourse Act (Fang & Hengeveld, subm.). The order of occurrence of *ba* and *le* in (29) then shows that *ba* has scope over *le* and thus *le* would have to be at a layer lower than that of the Discourse Act.

Another sentence-final particle, *ma*, modifies the Interrogative Illocution only, as in (30); it is thus an operator at the layer of the Illocution.

(30) *ni dong wo de yi-si ma?*
 2SG understand my ATTR meaning INTR

‘Do you understand me?’

Le and *ma* can co-occur with *ma* having scope over *le*, as in (31).⁶

(31) *ni yi-wei fu le qian jiu cheng-wei ni de le ma?*
 2SG think pay PFV money then become 2SG ATTR MIR INTR
 ‘Do you think that if you have paid, then it became yours?’

Le in (31) is mirative as it can be removed without bringing any change to the aspectual or time reference of the sentence. The sequential order of *le ma* reveals the scopal relation between them: *le* pertains to a layer lower than that of the Illocution, at which the particle *ma* applies. Taking the two sequential orders (*de le* and *le ma*) together, *le* operates at the layer of the Communicated Content.

In Section 3.3, the Communicated Content is defined as containing the totality of what the speaker wishes to evoke in his/her communication with the addressee; in a Declarative Discourse Act, the Communicated Content could be entirely new or a combination of new and familiar information (Hengeveld & Mackenzie 2008: 87). Hence, the new or familiar status of information is part of the Communicated Content that the speaker wants to convey to the addressee. This analysis is confirmed by the fact that SF *le* can occur in embedded clauses such as clausal complements, as in (32).

(32) *ni wei-shen-me mei gao-su wo [xiao zhang bu qu Beijing le]?*
 2SG why not tell me school president not go Beijing MIR
 ‘Why didn’t you tell me that the school president doesn’t want to go to Beijing anymore?’ (Paul 2014: 99)

Le in (32) has scope over the complement *xiao zhang bu qu Beijing*, not over the entire sentence because it is semantically incompatible to ask a content question and at the same time present it as newsworthy or surprising. If we replace the clause with a noun phrase *xiao zhang de shi* ‘the school president’s affairs’, (33a) is acceptable but (33b) is not. This reveals that *le* in this case is not a sentence-final particle for the entire sentence.

(33) a. *ni wei-shen-me mei gao-su wo xiao zhang de shi?*
 2SG why not tell me school president ATTR thing
 ‘Why didn’t you tell me the matter about the school president?’
 *b. *ni wei-shen-me mei gao-su wo xiao zhang de shi le?*

In (33), when *le* is removed, the sentence still holds and undergoes no change of time reference in the embedded clause. Hence, this SF *le* is mirative, not aspectual. The embedding capacity of mirative markers demonstrates that mirativity is part of, not outside of the Communicated Content.

The Communicated Content can be conveyed by the speaker in different Illocutions. As discussed in 3.3, SF *le* can combine with all kinds of Illocutions. It is also found that the mirative markers in other languages such as *Kohà* in !Xun and *nag* in Tarma Quechua occur in both statements and rhetorical questions (Aikhenvald 2012). The combinability of mirative markers with different Illocutions might give the impression that mirativity must have scope over Illocutions and thus operate on the layer of Discourse Act. Apart from the earlier arguments about the linear ordering of sentence-final particles as well as *le*’s embeddability, one more reason to refute this impression is that an operator at the Discourse Act layer must have the ability to modify (mitigate or reinforce), not just combine with, all kinds of Illocutions. Mirative markers such as SF *le*, however, do not bring about any change to the Illocutions

⁶ In contrast to *de* in (29), *de* in (31) is an attributive particle as the sentence is incomplete without it and a noun can be easily added after *de*. *Ni de* actually means ‘yours’. No instances have been found where modal *de* co-occurs with the sequence *le ma*, which is probably due to the fact that it is not semantically usual for a marker of subjective epistemic modality to occur in questions.

they combine with. What's more, as part of the Communicated Content, mirativity can surely occur in all kinds of Illocutions. Therefore, the combinability with different Illocutions alone is not sufficient to treat Mirativity at the Discourse Act layer.

Hence, the representation of mirativity in FDG and the hierarchical status of SF *le* are as follows:

(34) (Mir $C_{l_1}[(T)_{\Phi}^N(R)_{\Phi}^N]_{\Phi}(C_1); \Sigma(C_1)$)

Interpersonal Level		
Discourse Act	> Illocution	> Communicated Content
<i>ba</i> > <i>ma</i> > <i>le</i> (Mirative)		
Representational Level		
Propositional Content	> Episode	> State-of-Affairs
<i>de</i> (certainty) > <i>le</i> (perfect) > <i>le</i> (perfective)		

Figure 3. SF *le* at the Interpersonal and Representational Levels

6 Conclusions

I have argued that SF *le* in Mandarin is a mirative marker in its own right. It has the following properties as to its occurrence: (i) it encodes the information as newsworthy or surprising; (ii) it can occur with past, present and future time reference; (iii) it can occur in Illocutions such as declaratives, interrogatives, imperatives and exclamatives. This paper, based on the analysis of SF *le* in Mandarin, extends the definition of mirativity given by Hengeveld & Olbertz (2012) by proposing that mirativity can not only be targeted towards the speaker or the addressee, but also towards both. Lastly, it has been argued that mirativity should be accounted for at the layer of Communicated Content at the Interpersonal Level in Functional Discourse Grammar.

Abbreviations

1 first person; 2 second person; 3 third person; ATTR attributive; CEP counter-expectancy; CERT certainty; CL classifier; CONF confirmative; CONT continuous; COP copula; EMPH emphatic; INFER inferential; NEG negation; NF nonfinal; NMZ nominalizer; MIR mirative; MIT mitigative; PRF perfect; PFV perfective; PL plural; PROH prohibitive; PST past; SG singular.

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