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Research Article

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A mitigator in Mandarin: the sentence-final particle *ba* (吧)

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Abstract: It has been widely claimed in the literature that the sentence-final particle ba in Mandarin Chinese is a modal element. This article argues against this claim and shows that ba is an element that has a unified mitigating function with scope over the utterance as a whole. Using the framework of Functional Discourse Grammar (FDG), and more specifically its hierarchical, layered organization, the article provides several arguments that support this new classification of ba. First, ba, like mitigators in general, but unlike modal elements, can occur in sentences with different basic illocutions. Second, ba may co-occur with modal elements of all different subtypes and thus cannot be a modal element itself. Third, ba may occur in sentences in which the speaker is highly confident of the propositional content. Fourth, unlike modal elements, ba may occur in certain types of non-propositional utterances. And fifth, the position that ba occupies with respect to other sentence-final particles shows that it has scope over the utterance as a whole. After thus arguing for the status of ba as a mitigator, we show how the general mitigating function of ba can acquire the more specific mitigating effects that have previously been attributed to it in the literature.

Keywords: mitigator, sentence-final, ba, Functional Discourse Grammar, modal

1 Introduction

One of the prominent properties of the grammar of Mandarin Chinese is that it has a set of sentence-final particles, the meanings and uses of which have proven hard to define. One of these particles is ba (吧). Its use is illustrated in (1):

(1) *mei shi* **ba.**no affairs MIT
'Nothing happened.' (7377.1¹)

Without the particle ba, the sentence in (1) would be a direct statement transmitting certainty of the speaker. With the particle ba, the speaker transmits less certainty and makes it easier for the addressee to disagree.

¹ All the examples, unless otherwise indicated, are taken from the Peking CCL Corpus (http://ccl.pku.edu.cn:8080/cd_corpus/). For the examples from our sub-corpus, which was retrieved from CCL, each one is automatically assigned a number according to the order of appearance with 吧 as the keyword for searching. This number is given in parentheses; for those that are not from our sub-corpus yet still from CCL, the title of the specific source text is given after the example.

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In view of observations like these, ba has often been characterized in the literature as a modal particle (Wang 1943/1985: 174, Li 1924/2007: 274-6, Hu 1981: 416, Lu 1984: 334, Zhu 1999: 234-41, Zhang 1997: 19, Chu 1998: 139, Zhou 2009: 16-22, Zhao and Sun 2015: 121-32). It has also been characterized in many other ways, for instance, as a particle soliciting agreement (Li and Thompson 1981: 307-11), disturbing the neustic of the sentence (Han 1995: 118), marking degrees (Li 2006: 21–71), expressing estimation (Li 1924/ 2007: 274-6, Wang 1943/1985: 174), encoding a suggestion (Wiedenhof 2015: 241-2), or undetermined intention (Zhao and Sun 2015: 121-32).

According to Brown and Levinson (1978), face-saving strategies are employed to achieve successful social interactions. Mitigation is one such pragmatic strategy originally defined as reducing the possible unwelcome perlocutionary effects on the addressee (Fraser 1980: 342) and later as modifying the illocutionary force of a speech act (Hengeveld 1989: 140, Hengeveld and Mackenzie 2008: 83, Thaler 2012: 908). There is a wide range of mitigating devices available across languages; hedges, modals, evidentials, the conditional form, person deixis (Schneider 2010: 261-3), diminutives, impersonal subjects, and even understatement (Caffi 1999: 891–906). As revealed in the discussions of four Dutch modal particles by Vismans (1994), particles are also found to have mitigating functions. This article argues that the sentence-final ba in Mandarin is neither modal in nature, nor does it derive its specific functions in discourse from the context in which it occurs; instead, it has a unified mitigating function and the modal readings of the sentence are just one of the mitigating effects that this general function brings about. In order to substantiate our claims, we will make use of the theoretical framework of FDG (Hengeveld and Mackenzie 2008). By using this typologically based framework, we will be able to study the Mandarin data from the perspective of the crosslinguistic generalizations that are the empirical basis of this theory.

In what follows, we will first give a brief outline of some relevant aspects of FDG and further motivate the use of this framework for the purposes of our research. Section 3 then lists the predictions that follow from our claim that ba is a mitigator and describes the methods used to test those predictions. In Section 4, we check the predictions that follow from the fact that we do not treat ba as a modal element. Section 5 further explores the issue of how the more specific interpretations of ba mentioned in the literature can be clustered together and related to its general mitigating function and the contexts in which it is used. We round off with our conclusions in Section 6.

2 FDG²

FDG (Hengeveld and Mackenzie 2008) is a typologically based theory of language structure. FDG recognizes four different levels of linguistic organization. The interpersonal (pragmatic), representational (semantic), morphosyntactic, and phonological levels. These levels are organized in a top-down fashion, as shown in Figure 1. This figure shows that the interpersonal level dominates the other three levels, the representational level, the morphosyntactic, and phonological levels, while the morphosyntactic level dominates the phonological level.

Each level has a hierarchical internal organization, in the sense that it contains a series of layers that are in a scopal relationship. In this article, we focus on the interpersonal and representational levels only, as these are the ones that are relevant for the analysis of ba as a mitigator. The layers at these levels and the scope relations between them are shown in Figure 2. In this figure, scope is indicated by the symbols "→" reading from left to right and "\" reading from top to bottom, which both mean "has scope over". The interpersonal level comprises different pragmatic layers, with scope relations between them. The lowest layer relevant here is the ascriptive subact (T), which represents an act of predication. The next layer is the communicated content (C), which encapsulates the message transmitted in an utterance. Then

² This section is partly taken from Hengeveld and Fischer (2018).

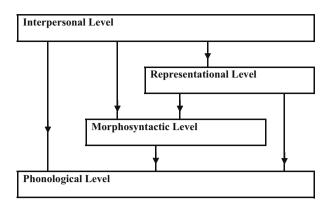


Figure 1: The top-down organization of FDG.

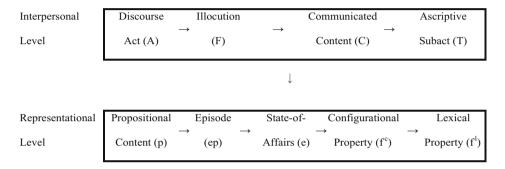


Figure 2: Layers and scope relations in FDG.

there is the illocution (F), which captures the communicative intention of the speaker; and the highest layer relevant here is the discourse act (A), which represents the basic unit of communicative behavior.

At the representational level, different semantic layers are distinguished, again with scope relations between them: the lowest one is the property (f^i) expressed by a lexical element. The next is the configurational property (f^c) , which consists of the lexical element and its argument(s) and as such provides the basic characterization of a state-of-affairs (SoA). Then comes the SoA (e) itself, which is the situated real or hypothesized situation the speaker is describing. The next layer is the episode (ep), which is a thematically coherent combination of SoAs that are characterized by unity or continuity of time, location, and participants. The highest layer is the propositional content (p), which is a mental construct, such as a belief, piece of knowledge, or wish.

As mentioned above, the levels themselves are also hierarchically related, with the interpersonal level having higher scope than the representational level, as indicated in Figure 1.

FDG systematically distinguishes between relational and non-relational grammatical categories, the former being represented as functions and the latter as operators. Possible realizations of relational categories are adpositions and conjunctions. Non-relational categories include, among others, tense, aspect, mood, evidentiality, and negation. This wide definition of operators opens up an enormous range of grammatical categories. Table 1 gives an overview of all the relevant categories at the clausal level as presented in Hengeveld and Mackenzie (2008), but including the modifications proposed in Hengeveld and Fischer (2018) for aspect; Hengeveld and Dall'Aglio Hatthner (2015) and Hengeveld and Fischer (2018) for evidentiality; Hatther and Hengeveld (2016), Olbertz and Gasparini Bastos (2013), and Olbertz and Honselaar (2017) for modality; Mackenzie (2009) and Hengeveld and Mackenzie (2018) for polarity; and Olbertz (2012) and Hengeveld (2017) for mirativity.

It is important to underline the two important aspects of the system presented in Table 1. First, it is predicted in FDG that the scope of operators will be reflected in the ordering of elements of the clause expressing these operators within the clause. Operators with lower scope are expected to occur closer to the

Table 1: Tense, aspect, mood, evidentiality, mirativity, polarity, and localization categories in FDG

	Interpersonal level	level			Representational level	rel			
	Discourse act (A)	Illocution (F)	Communicated content (C)	Ascriptive subact (T)	Propositional content (p)	Episode (ep)	State-of-affairs (e)	Configurational property (f ^c)	Lexical property (f)
Mood	lllocutionary modification	Basic illocution; illocutionary modification			Proposition- oriented modality	Episode-oriented Event-oriented modality modality	Event-oriented modality	Participant-oriented modality	
Polarity	Rejection	Negative basic illocutions	Denial	Metalinguistic negation	Disagreement	Co-negation	Non-occurrence	Failure	Local negation
Evidentiality Quotative Mirativity	Quotative		Reportative Mirative	Reportative	Inference	Deduction	Event perception		
Tense						Absolute tense	Relative tense		
Aspect							Event quantification	Qualitative aspect, participant-oriented quantification	Property quantification
Localization							Event location		Directionality

predicate than those with higher scope. Second, the table shows that mood, polarity, evidentiality, tense, aspect, and localization are categories that can be divided into subtypes with different scope properties and thus the category itself cannot be used as a unified tool for analysis. The ordering of the elements expressing these subtypes is again expected to reflect the scope relations within the overall category.

It is outside the scope of this article to give a full motivation of the categorization presented in Table 1, but we provide more details on the categories that play a central role in the remainder of this article, i.e., the ones listed under "mood". Within this category, a further distinction is made between illocution, which applies at the interpersonal level, and modality, which applies at the representational level.

As seen in Table 1, the category of illocution can be further subdivided into basic illocution and illocutionary modification. Basic illocutions are conventionalized expressions of communicative intentions, and include, e.g., declarative, interrogative, and directive. Illocutionary modifiers express modifications of basic illocutions, such as their mitigation and reinforcement.

Operators expressing illocutionary modification may occur at the layer of the illocution or at the layer of the discourse act. They operate at the layer of the illocution when they are restricted to certain basic illocutions, as in, e.g., A'ingae (Fischer and Hengeveld n.d.), which has a specific expression for the mitigation of directives. They operate at the layer of the Discourse Act when they apply to all basic illocutions that are available in a language, as in the case of Spanish, a language that allows the use of the reinforcing particle *que* with declarative, interrogative, and directive basic illocutions alike (Hengeveld and Mackenzie 2008: 67).

The category of modality is subdivided into four different categories: proposition-oriented modality, episode-oriented modality, event-oriented modality, and participant-oriented modality. An example containing all four types of modalities, most of them expressed lexically and one grammatically, is given in (2).

(2) It is *certainly possible* that one *has to* be *able* to swim in order to gain entrance to the swimming pool.

Proposition-oriented modality, also known as subjective epistemic modality, expresses the degree of commitment of a speaker with respect to the truth value of a propositional content, a function performed in (2) by the adverb *certainly*. Episode-oriented modality, which is also known as objective epistemic modality, characterizes episodes in terms of the degree of likelihood of their occurrence. In (2), the modal adjective *possible* describes such a degree. Event-oriented modality, as expressed by *have to* in (2), characterizes an SoA as a whole as feasible or mandatory. Finally, participant-oriented modality describes a relation between a participant in an SoA and the realization of that SoA, as illustrated by the modal expression *be able to* in (2), which ascribes the ability to perform an SoA to a participant.

The fact that the four different modal expressions can be used in a single sentence such as (2) shows that there must indeed be four different subtypes of modalities, which belong to different paradigms. Otherwise, it would be hard to account for the co-occurrence of modal expressions such as *certainly* and *possible* in a single sentence. Furthermore, it is important to note that (2) illustrates that the scope of the modal categories determines their order with respect to the predicate, a point we made above. In (2), *certainly* is furthest away from the predicate, followed by *be possible*, *have to*, and *be able to*, an order that directly reflects the underlying scope properties of each modal element. Note also that any ordering of the modal expressions other than the one in (2) would lead to an ungrammatical sentence.

3 Predictions and methods

In this article, we justify our claim that *ba* is a mitigator rather than a modal element. This claim leads to a number of predictions that we will test in the remainder of this article.

The first prediction is that ba shows grammatical behavior that one would not expect from a modal element. This general prediction leads to a number of more specific predictions. If ba were a modal element, it should not be possible for it to (i) occur in sentences with all possible basic illocutions, more specifically in directives, (ii) co-occur with modal elements of all different subtypes, (iii) occur in sentences

in which the speaker is highly confident of the propositional content, (iv) occur in certain types of nonpropositional utterances, or (v) occupy a position in which it has scope over the utterance as a whole, including the modal elements that it contains. These five-specific predictions are tested in Section 4.

The second general prediction is that, if it is a general mitigator, ba will receive more specific interpretations that can be explained in terms of the interaction between the mitigating function that ba realizes, the properties of the type of speech act in which it occurs, and the properties of the wider context that this speech act is embedded in. This prediction is tested in Section 5.

In testing the predictions, we make use of corpus data. The corpus used is the Peking Corpus by the Center for Chinese Linguistics (CCL), which contains a sub-corpus of vernacular Mandarin and a subcorpus of modern Mandarin. The latter, which is the one we used, is made up of 509,913,589 words and covers both spoken and written Mandarin in various text types, including novels, plays, stories, TV programs, movies, newspapers, cyber-text, and translated works. Searches with ba as the key word in the modern corpus resulted in 104,276 instances on 2,086 pages with approximately 50 instances per page. Given the limitations of the CCL corpus as to randomizing automatically, we randomly selected 16 pages, giving 879 instances in total. Of these, 116 occurrences were removed because they were homonyms of ba (as a topic marker, a noun, or an onomatopoeic use),³ as well as several instances of repetitions and typos, resulting in 763 instances of the sentence-final use. These constitute the sub-corpus used in this study, all instances of which were analyzed manually.

4 Ba as a mitigator

4.1 Introduction

In this section, we test the predictions concerning the non-modal nature of ba listed in the previous section. The results show that ba can indeed not be a modal element, as it occurs in contexts in which modal elements would not be possible.

4.2 Ba and basic illocution

Subjective modal elements are generally restricted to declarative sentences (Hengeveld 1989: 138) and to a lesser extent also occur in interrogative sentences. They may occur in these sentence types as these contain a propositional content. This is different for directive speech acts, which do not transmit information but project behavior. Subjective epistemic expressions, therefore, cannot occur in directives (for further discussion see Section 4.5). If ba were a modal element of uncertainty, as claimed in the literature, ba would have to be restricted to declaratives and interrogatives; however, ba may occur in sentences with all basic illocutions encountered in Mandarin Chinese.

The basic illocutions identified in Mandarin are declarative, interrogative, directive, exclamative, and prohibitive, which have distinct intonational features. Declarative is characterized by a flat intonation (Huang and Liao 2011/2015: 99) and a fall at the end of an utterance (Duanmu 2000: 235), while the interrogative intonation usually has an overall higher phrase curve, higher strengths of sentence final tones, and a final-tone-dependent mechanism (Yuan 2006, Liu et al. 2016). Although directives usually have a low tone range similar to declaratives, they enjoy several features distinguishable from declaratives. Directives are restricted to first and second person if explicitly expressed; directives

³ Among these 116 instances, the majority is the topic use. As topic ba is not a sentence-final particle, the discussion of it is beyond the scope of this article.

usually have bare verbs; the only aspect marker that can occur in directives is the progressive marker *zhe*.⁴ In addition, a stronger command is distinguished by an overall forceful tone as well as a short and intense sentence-final tone (He and Jing 1992: 96). Prohibitive requires the use of negative words such as *bie*, *bu*, and *bu-yao* with a stressed intonation, where *bie* is a negative particle used exclusively in prohibitives (Li and Thompson 1981: 455). Finally, exclamative, in addition to a high frequency of degree adverbs, has a distinct prosodic contour characterized by one or multiple strong stress positions, a wide pitch range, and a low ending boundary (Chen 2007).

In our corpus, ba occurs in all five sentence types, as exemplified in (3).5

- (3) a. nin she-ji de zuo-pin yue vou 2000 duo zhong ba. 2.SG.POL design ATTR works have 2000 kind MIT about more 'You have designed more than 2000 kinds of works.' (6495.1)
 - b. *ni ming-bai wo-de yi-si ba?*2.SG.FAM understand 1.SG-ATTR meaning MIT
 'You understand what I meant?' (748.1)
 - shi-hua iiu gei wo shuo ba. 2.SG.FAM at.once give me say truth MIT ni duo-da sui-shu? 2.SG.FAM how.old age
 - 'Tell me the truth immediately. How old are you?' (63.1)
 - d. (Three tax inspectors are investigating the tax-paying history of the factory. The factory director is calling up the head of the tax department, complaining angrily:)

wo	bu	shi	shuo	ni-men	mei	you	quan-li	cha,
1.SG	NEG	COP	say	2.PL	NEG	have	right	investigate
dan	zhe-zhong	cha	fa	de	bao-fu-xing			
but	this.type	investigate	way	ATTR	revenge			
ye	tai	ming-xian	le	ba!				
as.well	too	obvious	MIR	MIT				

'I am not saying that you people don't have the right to investigate, but the vindictive manner in which you did it is so obviously unreasonable as well.' (9628.1)

e. **bie** diao Le **ba**.

PROH sling MIR MIT

'Don't sling (the rail) anymore.' (7009.1)

(3a) is a declarative in which the presence of ba makes the statement sound less assertive and thus leaves more space for the addressee to disagree. (3b) is an interrogative in which the use of ba makes the question sound more consultative. The first clause in (3c) is a directive in which the speaker is pushing a woman to tell the truth. The use of ba reduces the harshness of this command. (3d) is an exclamative in which the speaker is complaining angrily. The presence of ba mitigates the negativity of the speaker's complaint. (3e) is a prohibitive in which bie indicates that the speaker wants the addressee to stop. By using ba, the speaker makes the prohibition sound less forceful. The sentences above illustrate the combinability of ba with all kinds of illocutions, which shows that ba cannot be an epistemic marker of uncertainty. Besides, in comparison with their counterpart sentences without ba, the illocutionary force of each sentence with ba is mitigated, which brings about the effect that the addressee is given more space either to disagree or to refuse to comply, if necessary.

In order to explore the combinatory status of *ba* with different illocutions, we manually annotated each instance in our sub-corpus and obtained the absolute frequency and percentage of each illocution

⁴ The perfective marker *le* (note: not the other uses of *le*) cannot occur in directives.

⁵ Zhu (1999:234–41) believes that ba is a marker of interrogative and directive illocutions. Our examples show that this cannot be the correct analysis.

combined with ba, as shown in the second column in Table 2. These frequencies and percentages, however, might be correlated with the overall distribution of illocutions within the sub-corpus; therefore, we also investigated the relative percentage of each illocution in the CCL modern Mandarin corpus, regardless of the presence or absence of ba. Due to the accessibility of the text-type data in the CCL corpus, we randomly selected 200 sentences from each of the spoken and literary sub-corpora to uncover the overall distribution of illocutions in Mandarin. We manually annotated those 400 sentences, which resulted in 362 in total after the irrelevant ones such as repetitions and typos were removed. We then calculated the frequencies and percentages per illocution type among these 362 sentences, as seen in column three of Table 2. Finally, this overall frequency per illocution type, regardless of the presence or absence of ba, is divided by the absolute percentage per illocution type with ba in our sub-corpus. The rates and ranks are given in the fourth column.

Table 2 shows important differences in the overall presence of basic illocutions, of which the declarative is the highest in frequency. On an even distribution, it would be expected that ba would most frequently occur with the declarative. However, as shown in the fourth column, the directive use of ba, not the declarative use, is dominant in our sub-corpus, to the extent that ba is used in directives over seven times more often than would be expected on an even distribution. This reveals that the primary use of ba is not modal, as mentioned above, epistemic modality targets a proposition as expressed in a declarative or interrogative sentence, whereas directives are proposals that involve the non-verbal exchange of goodsand-services (objects or actions) that cannot be affirmed or denied (Halliday 1994: 68-71). Hence, in the case of directives, it would be impossible for the speaker to use ba as a modal to show his/her epistemic commitment toward a proposal. Rather, ba is a mitigator as can be seen from the comparison between the directives with and without ba. With the presence of ba, the illocutionary force of directives is softened; without ba, the directives sound more forceful. As the basic function of a directive is to issue an order or a request, which poses a potential threat to the negative face of the addressee (Brown and Levinson 1978), the speaker uses ba as a mitigating strategy to soften this face-threatening effect, thus leaving space for the addressee to refuse to comply.

The second most frequent illocution with which ba combines is the interrogative. There is a small difference between the frequency of interrogatives with ba and the frequency of interrogatives overall. Though less face threatening, interrogatives are somewhat similar to directives in being requests for information and might therefore also be expected to be mitigated. This also holds for prohibitives, the third most frequent illocution, whose strong imposing force tends to be softened by the speaker. As directives, interrogatives and prohibitives are demanding in nature, either for an action or for a piece of information, and it is very likely for them to be mitigated in order to soften the imposition on the addressee. The illocutions that ba combines with least frequently are declaratives and exclamatives. In comparison with other illocutions, declaratives and exclamatives are informative in nature, either conveying a statement or expressing strong emotions. These two illocutions are consequently less face threatening than the other illocutions and thus less in need of mitigation.

Owing to the low frequencies of exclamatives and prohibitives and the lack of available raw data of more text types, what is presented in column five of Table 2 may not reflect the actual rate of ba per

Table 2: Frequency and percentage of basic illocutions

Basic illocution	With <i>ba</i> in our sub-corpus	Overall frequency per illocution (with or without the presence of <i>ba</i>)	Rate/Rank
Declarative	235 (30.8%)	269 (74.3%)	0.4/4
Interrogative	147 (19.3%)	59 (16.3%)	1.18/ 2
Directive	376 (49.3%)	25 (6.9%)	7.14/ 1
Exclamative	4 (0.5%)	7 (1.9%)	0.26/5
Prohibitive	1 (0.1%)	2 (0.6%)	0.5/ 3
Total	763 (100%)	362 (100%)	

illocution. Nevertheless, the substantial differences are still revealing, especially the overwhelmingly higher frequency of ba in directives, which shows that its directive use, not its declarative use, is basic and primary. This is also confirmed by diachronic research conducted by Tantucci (2017), who points out that in recent history ba has witnessed a gradual shift from the directive use to the declarative use. This reveals that the use of the mitigator in directives is the original one and has diachronically expanded to declaratives, functioning to reduce the assertive force of the declarative.

Crosslinguistically, a mitigator can modify a specific illocution or all kinds of illocutions. As argued in Section 2, in FDG a mitigator that co-occurs with all possible illocution types is treated as an operator at the layer of the discourse act, thus modifying the discourse act as a whole. As shown in (3), the presence of ba reduces the force of all types of illocutions. Therefore, ba may be analyzed as operating at the discourse act layer rather than at the layer of the illocution. This stands in contrast to much of the existing literature, in which ba is often regarded as modifying some specific illocutionary force, such as estimation (Wang 1943/1985: 174, Li 1924/2007:274-6), soliciting agreement (Li and Thompson 1981: 307-11), suggestion (Lü 1999: 56–57, Wiedenhof 2015: 241–2), etc. Li (2006: 21–71) comes closest to our position, as she argues that ba has a unified function of marking a low degree of commitment in different sentence types, focusing on "ba's semantic contributions" (2006: 28). However, she equals the strength of the speaker's intention to the sentence force. She maintains that ba marks "a low degree of strength with respect to the speaker's intention to have an action carried out when occurring in imperatives, as well as in various types of questions" (2006: 36). In our view, what's being weakened by the presence of ba is not the speaker's intention but the illocutionary force concerned. For instance, in directives, the speaker uses ba not to indicate his/her weak intention to have the action carried out but to indicate his/her openness to negotiate the strong intention of having the action carried out. In other words, what's being modified is not the intention itself but the strong directive force for the sake of reducing the unwelcome perlocutionary effects that a directive might bring along.

In this section, we have shown that ba behaves differently from modals in two respects in terms of its combinability with different types of illocutions. First, modals have restrictions as to which types of illocutions they can occur with; however, there are no such restrictions on ba as it can combine freely with any type of illocution. Second, modals are expected to occur most frequently in declaratives; however, our data show that the most frequent illocution in which ba occurs is the directive.

4.3 Ba and modality

In the literature, ba is considered to express the subjective epistemic modality of uncertainty (e.g., Wang 1943/1985: 174, Hu 1981: 416, Zhu 1999: 234-41), which will be argued in this section to be a wrong analysis, as ba cannot be a modal if it itself can co-occur with all kinds of modals, including modals of subjective epistemic modality.

In our sub-corpus, there are 235 declarative sentences with ba, among which 95 co-occur with one or two modal elements, listed in Table 3. Among the four types of modalities distinguished in FDG (see Section 2), subjective epistemic modality and objective epistemic modality are the most difficult ones to classify. We adopt Olbertz and Dall'Aglio Hattnher's (2018: 139) content question test to distinguish subjective modality from objective modality in our sub-corpus. Subjective modalities occur in propositional contents, which, as such, cannot be located in space or time, while objective modalities occur in episodes, which can be located in space or time. We use content question words of time such as shen-me shi-hou "when" or content words of space such as zai na-er or shen-me di-fang "where" to test each declarative sentence in which an epistemic modal occurs. If the sentence becomes unacceptable after the insertion of the relevant question words, the modal expression is categorized as expressing subjective epistemic modality as in (4).

Table 3: Frequency of co-occurrence of ba with four types of modalities

Type of modality	Modal elements	Frequency	Percentage
Subjective epistemic modality	da-gai (大概) "probably" ⁶	21	22.1
	ye-xu/huo-xu (也许/或许) "perhaps"	19	20.0
	da-yue (大约) "probably"	5	5.2
	ke-neng (可能) "possibly"	14	14.7
	bu-yi-ding (不一定) "uncertainly"	1	1.1
			53.1
Objective epistemic modality	yi-ding (一定) "certainly"	4	4.2
	ken-ding (肯定) "certainly"	1	1.1
			5.3
Event-oriented modality	gai (应该/该) "should"	11	11.5
	ke-yi (可以) "may"	1	1.1
	bu-neng (不能) "cannot"	8	8.4
	neng (能) "can"	1	1.1
			22.1
Participant-oriented modality	ke (可) "can"	1	1.1
	hui (会) "would"	7	7.3
	ke-yi (可以) "can"	1	1.1
			9.5

- (4) a. ren-sheng zui xing-fu de zhuang-tai...da-gai jiu shi life COP most happy **ATTR** state probably even zhi-zu ba content MIT
 - 'The happiest state of life ... must be being content.' (517.1)

her own hands a lot.' (2705.2)

- b. *ren-sheng zui xing-fu de zhuang-tai...da-gai shen-me shi-hou/zai na-er jiu shi zhi-zu? 'When/where must the happiest state of life ... be being content?'
- (5) a. zai zhe zhong tian-qi li yi-ding huai-nian ma-ma geng-jia exist this **CLF** weather certainly mother in more miss qin-shou zuo de re tang mian ba. with.own.hands make ATTR hot soup noodles MIT 'In such weather, (you) are likely to miss the hot noodles that your mother made by
 - b. zai na-er yi-ding geng-jia huai-nian ma-ma qin-shou exist where certainly more miss mother with.own.hands zuo de re tang mian? noodles make **ATTR** hot soup

'Where are you likely to miss the hot noodles that your mother made by her own hands a lot?'

If the sentence is acceptable, the modal word is considered to be an objective epistemic modal, as is the case in (5).

To distinguish between event-oriented, and participant-oriented modality, it is necessary to determine whether the modal expression involves/concerns external circumstances or participants. In (6a), it involves the external circumstances. In this case, a general rule requires the summing up rather than the experience and the lessons themselves; therefore, ying-gai "should" expresses an event-oriented modality. In (6b), the understanding involves the ability of the participant ni-men "you", so hui "will" expresses a participant-oriented modality.

- (6) a. zhe jing-yan jiao-xun zong-shi ying-gai zong-jie xia de ba should one CLF CERT MIT This experience lesson always summarize 'The experience and lessons should always be summed up.' (7395.1)
 - b. dao-ci hui ming-bai ni-men jiu wo dui de gai ju toward by.then 2.PL then will understand 1.SG play **ATTR** this ba guan gan yи ping-jia le MIR MIT see feelings and comment

'By then, you will come to understand my reviews and comments on this play.' (7358.1)

On the basis of these criteria, we classified modal expressions in the 95 declarative sentences and calculated their frequencies.⁷ The results are presented in Table 3.

As Table 3 shows, *ba* co-occurs with all types of modalities. The most frequent one is subjective epistemic modality, especially with the expressions *da-gai*, *ye-xu*, and *ke-neng*.

As we have shown in example (2), modal elements may co-occur when they belong to different classes, but not when they belong to the same class. What Table 3 shows, however, is that *ba* may co-occur with any type of modality, so this means that it cannot itself belong to any of these classes.

Examples of combinations of *ba* with all other types of modalities are shown in (7). *Da-gai* in (7a) expresses subjective epistemic modality, *yi-ding* in (7b) expresses objective epistemic modality; *gai* in (7c) event-oriented modality; and *hui* in (7d) participant-oriented modality.

- (7) a. **da-gai** shi qian nian **ba** probably COP before year MIT 'Probably it was in the year before last.' (6474.1)
 - ha-li yi-ding gan-dao shi-fen b. vou zhe yang de ni er-zi, Henry have this like ATTR son 2.SG certainlyfeel very ba! zi-hao proud MIT

'Having a son like Henry, you must be very proud of yourself.' (2746.1)

c. ni shi zai Beijing shi-jian zui-chang de da-shi, 2.SG.FAM COP ambassador at Beijing time longest of gai fen-shou shi sheng ba. zong shuo zai-jian depart when always should say CLF goodbye MIT

'You are the ambassador who has stayed the longest time at Beijing. When you leave, you should at least say goodbye (because if you don't, it would be impolite).' (7776.1)

li-lun gu-ji bo-lang dang-dai zhang-men-ren de сио-wи guess wave theory contemporary leader **ATTR** mistake fen-xi hui fu-he bo-lang li-lun de you-xi gui-ze ba. ve analysis too would comply wave theory **ATTR** game rule 'I guess that even the wrong analysis made by the leader of the Wave Theory would comply with the rules of the game in the Wave Theory.' (2718.1)

In the sub-corpus, there are five cases of *ba* occurring with two modal elements in a single declarative sentence. Since each type of modality pertains to a different layer in FDG (Table 1), it is theoretically

⁶ Among the 21 sentences of *da-gai*, there are two that can be changed into a content question, but in both cases, the meaning of *da-gai* changes into a non-epistemic meaning "approximately"; therefore, we still categorize *da-gai* as an expression of subjective epistemic modality.

⁷ Of course, this classification is sub-corpus-specific and sub-corpus-bound. We do not mean to rule out the possibility that some of the modal expressions mentioned here may express other types of modal meaning in corpora without the presence of *ba*.

legitimate for them to co-occur. In (8a), ba co-occurs with the subjective modal da-gai and the eventoriented modal neng, whereas in (8b) it co-occurs with the objective epistemic modal ken-ding and the participant-oriented modal hui.

(8) a. xian shi zong-shi shui da jiao da Ma-Jiang, da-gai free time always sleep big sleep play Ma-Jiang probably bи neng suan-shi zui-hao de xuan-zhe ba NEG can considered best of choice MIT

'In your free time, you always sleep or play Ma-Jiang, which probably cannot be considered to be the best choice.' (8480.1)

zhe-xie di-fang ken-ding zai-hu Beijing bи hui shen-me these places certainly NEG will Beijing concern what hu-kou de ba hu-kou **CERT** MIT

'These places certainly won't be concerned about any Beijing Hu-Kou.' (1110.1)

In our corpus, there are no co-occurrences of three modal elements with ba. Nevertheless, the fact that ba can co-occur with all types of modalities and even with more than one type of modality in a single sentence demonstrates that ba cannot itself be a modal, since, if it were a modal, the combination with at least one of these types would lead to ungrammaticality.

There is an even stronger argument to support this observation. If the particle ba and a modal expression are both grammatical, their co-occurrence would even be more severely restricted, as grammatical elements belonging to the same class constitute a paradigm. Among the class of subjective epistemic modals in Mandarin, there are two that are grammatical in nature: da-gai and ye-xu.8

If ba, as a grammatical element, were to express subjective epistemic modality, it would share its categorical grammatical features with da-gai and ye-xu. Therefore, they would fall into the same paradigm and would thus be mutually exclusive in a single sentence. The fact that there are 21 cases of cooccurrence of ba with da-gai and 19 with ve-xu shows that there is no restriction for ba to co-occur with subjective epistemic modality. Examples are given in (9a) and (9b):

(9) a. zhe da-gai dong-wu jiu-shi he ren de yi ge this probably animals humans ATTR one CLF exactly and hen da de qu-bie ba **ATTR** verv difference big MIT

'Probably this is indeed a big difference between animals and human beings,' (1137.1)

b. *ye-xu*, zhe zheng shi wen-hua de νi da you-mu perhaps, this indeed COP nomadic culture ATTR one big ba te-se

characteristic MIT

'Perhaps, this is indeed one big characteristic of the nomadic culture.' (7783.1)

In all, we must conclude that ba cannot be a modal marker, due to its co-occurrence with modal elements of all possible types. The uncertainty reading of the sentence in which ba occurs is not due to an inherent modal property of ba but to the mitigating effect that ba brings about when it interacts with the illocutionary force of the sentence. We will come back to this effect in Sections 4.4 and 5.4.

⁸ The grammatical nature of da-gai and ye-xu can be established by a criterion used in Keizer (2007: 40-3) and Hengeveld (2017: 30-1), according to which grammatical elements cannot be modified. This is true for da-gai and ye-xu, but not, for instance, for ke-neng "possibly", which can be modified as in hen ke-neng "very possibly."

4.4 Ba in expressions with strong truth commitment

If *ba* were a modal marker of uncertainty (Hu 1981: 416, Lu 1984: 334, Chu 1998: 139, Zhou 2009: 16–22, Zhao and Sun 2015: 121–32), then a speaker could use *ba* to show he/she is uncertain about what he/she is asserting. However, *ba* can occur in sentences in which the speaker displays a high degree of confidence in the truth of the statement (Tantucci 2017). In (10), the village head is highly confident that Chen Yue-Qing is reluctant to sell the orchard because no one would sell something that is very profitable.

(10) (Chen Yue-Qing owned an apple orchard. She wanted to sell it because she thought she couldn't handle this alone after her husband died in a traffic accident. The village head persuaded her not to sell it and lent her some money. After some time, she began to gain profit from the orchard. On a visit to her orchard, the village head said in a happy voice to her,)

```
xian-zai ni ke she-bu-de zhuan-rang le ba!
now 2.SG.FAM yet reluctant make.over MIR MIT
'Yet now you are reluctant to sell the orchard.' (8492.1)
```

There are even cases in which the speaker explicitly expresses high confidence by using expressions such as *yi-ding* and *ken-ding*, as shown in (7b) above and (11a) below. In these cases, *ba* cannot encode uncertainty because it would be contradictory for the speaker to explicitly express high confidence in what he/she said and at the same time present it as being uncertain. This can be confirmed by replacing *ba* in (11a) by an expression of subjective possibility such as *ye-xu* "perhaps", which would render the sentence unacceptable, as shown in (11b).

- Dong Wen-Hua (11)a. na γi ve, yi-ding shui le ba. that one night Dong Wen-Hua too certainly sleep **PERF** MIT 'At that night, Dong Wen-Hua must be asleep.' (3856.1)
 - *na b. γi ve, Dong Wen-Hua ye-xu ve yi-ding shui le. that one night Dong Wen-Hua certainly sleep **PERF** perhaps 'At that night, Dong Wen-Hua must perhaps be asleep.'

The ungrammaticality of (11b) is due to the clash between the modal expression *yi-ding* "certainly" and the modal expression *ye-xu* "perhaps", which expresses the opposite modal value. The fact that *ba* does not have such an effect shows that it cannot itself be modal.

However, it is not the case that ba can occur in all declaratives in which the speaker expresses strong confidence. The typical example is a bare assertion concerning the speaker's own past behavior, as in (12a).

- (12) a. wo zuo-tian qu Beijing le.

 1.SG yesterday go Beijing PERF
 'I went to Beijing yesterday.'
 - b. *wo zuo-tian qu Beijing le ba.
 1.SG yesterday go Beijing PERF MIT
 'I went to Beijing yesterday.'
 - c. wo zuo-tian qu Beijing le ba?'I went to Beijing yesterday?'

In (12a), the speaker's going to Beijing is presented as a fact, leaving no space for negotiation. The addition of ba to such a bare assertion makes the sentence unacceptable, as in (12b), because when one shows less than full commitment toward his/her own actions, one calls himself/herself into question. However, if (12b) is changed into a rhetorical question, it becomes acceptable, as in (12c). Similar to (10), ba in (12c) is legitimate despite the fact that the speaker has full confidence in what's being stated. The difference between (12a) and (12c) is that in (12c), the speaker leaves space for negotiation with the addressee, while this is not the case in (12a).

The fact that the speaker uses ba even when he/she has high confidence in what's being asserted reveals that ba is not used to encode the speaker's real uncertainty but instead is used strategically to achieve pragmatic purposes, functioning in the same way as hedges and pragmatic markers across languages. Hence, to express uncertainty is not ba's inherent nature; rather, when the illocutionary force of an assertion is mitigated, the assertion consequently sounds less certain as this involves a weakening of the speaker's commitment to the truth of the proposition. To put it more simply, the uncertainty reading of the sentence is just the mitigating effect that ba brings about in an assertion.

As mentioned in Section 4.2, Li (2006: 21-71) argues that ba marks a low degree of the assertive force, which seems to be similar to our argument that ba has a mitigating function in declaratives. However, what she means by "a low degree" is that "with ba the speaker is not wholly certain about the factual status of the proposition and makes a weak assertion" (2006: 60). This shows that her approach reflects a modal perspective rather than one in which ba's pragmatic mitigating functions are recognized.

4.5 Ba in non-propositional utterances

Ba not only occurs in sentences with strong epistemic commitment but also in non-propositional sentences. The most frequent co-occurrence is with hao "okay". For instance,

(13) (The son is afraid of swinging. His father is trying to encourage him to have a try by showing him how. Seeing that his father is enjoying himself on the swing, the son says,)

```
hao
       ba.
              dan
                    wo
                           bu
                                  yao
                                          dang
                                                   de
                                                           па-те
                                                                    gao
okay
       MIT
              but
                    1.SG
                           NEG
                                  want
                                          swing
                                                   ATTR
                                                           that
                                                                    high
'Alright then, but I don't want to swing that high.' (2735.1)
```

As mentioned in Section 4.2, human interactions involve two kinds of exchange, an exchange of propositions and an exchange of proposals. The former refers to statements and questions that can be "argued about something that can be affirmed or denied, and also doubted, contradicted, insisted on, accepted with reservation, qualified, tempered, regretted and so on" (Halliday 1994: 70), whereas the latter refers to offers and commands that cannot be affirmed or denied (Halliday 1994: 70). A proposition can be related to epistemic uncertainty but a proposal cannot. For instance, in English, propositional (14) is correct, but it is awkward to say (15).

- (14) I am not so sure whether we should go or not.
- (15) *Let's probably go.

In Mandarin, hao is actional since it reacts to a proposal, not to a propositional content. In (13), hao ba is a reaction to the father's suggestion to swing, rather than an epistemic agreement as to whether the statement is true or not. It is not grammatical to use (16) in response to the father's encouragement in the context given in (13).

```
(16) *shi de.
           CERT
     yes
     'Yes.'
```

Hengeveld and Mackenzie (2008: 146–9) point out that yes is propositional in nature and can be used to substitute for full propositional contents. Hence, it is used in reaction to a statement or a question but cannot be used to react to a directive because a directive evokes an SoA rather than a propositional content. The reaction to a directive would be an actional one like okay. This means that it is incorrect for Zhou (2009:16–22), Chu (1998:132–9), and Zhao and Sun (2015:121–32) to claim that ba is used in directives to show that the speaker is unsure of or dubious about the enactment of the speech act. Actually, when ba occurs with actional hao "okay", it mitigates the willingness to carry out the required action. In (13), without ba, the sentence means "okay", implying I would like to do that; with ba, it means "alright", implying I will do that but I am somewhat reluctant.

4.6 Ba and other sentence-final particles

As introduced in Section 2, FDG recognizes four levels, two of which are relevant in our discussions, namely, the representational level and the interpersonal level. The former is concerned with semantics, while the latter deals with pragmatics. The hierarchical layout presented in Table 1 predicts the actual ordering of linguistic elements pertaining to different layers and levels. If *ba* is modal, it expresses semantic categories and thus pertains to the representational level. In this section, based on *ba*'s positioning with respect to other sentence-final particles, we will argue that this cannot be the case.

Mandarin Chinese has a rich inventory of sentence-final particles. Two distinguishing features of Mandarin sentence-final particles are that they have a very high frequency of occurrence in daily conversations and that they can occur in clusters which have a highly restricted linear order. The most basic sentence-final particles are the following six: de (的), le (了), ne (呢), ba (吧), ma (吗), and a (啊). They have different degrees of scope over the content of the sentence and can thus cluster hierarchically at the end of a sentence. We searched all the logically possible permutations of these six particles in the CCL corpus (see Fang and Hengeveld n.d.), finding that the maximal combination of those basic particles is three in a single sentence. The most frequent combination is de le a, which is phonetically fused into de la (的啦) due to the adjacency of two vowels. The second most frequent one is de le ma and the third is de le ba. The third combination is illustrated in (17).

```
(17) ni
                 yi-ding
                                  yuan-yi
                                                 ba-ba
                                                         chu
                                                               lai
                            hui
                                           gen
     2.SG.FAM
                certainly
                           will
                                 willing
                                           with
                                                 Dad
                                                         go
                                                               come
     wan
                 de
                            le
                                  ba.
                 CERT
                            MIR MIT
     play
     'You will certainly be willing to go and hang out with Dad.'
```

De in (17) is a modal marker of certainty, which pertains to the layer of the propositional content at the representational level. Le is a mirative marker at the layer of the communicated content at the interpersonal level (Fang 2018). The representational level is lower than the interpersonal level, which is iconically reflected in the ordering of de and le. The sequence de le ba shows that ba has scope over both le and de and thus occupies a layer higher than the layer at the interpersonal level that le pertains to. The fact that ba is located at the interpersonal level, not at the representational level, invalidates the claim that ba is a modal marker; instead, it validates our argument that ba is a pragmatic marker.

Then the question arises as to which layer *ba* pertains to at the interpersonal level. The two layers higher than the communicated content are the layer of the illocution and the layer of the discourse act, as shown in Table 1. As mentioned in Section 2, the difference between an operator at the layer of the illocution and an operator at the layer of discourse act is that the former accounts for grammatical emphasis and mitigation of a specific illocution or a limited range of illocutions, whereas the latter can combine with all types of illocutions, thus reinforcing or mitigating the discourse act as a

⁹ *Shi* is propositional except when used in the military forces as a response to an order issued by someone higher in rank. In this case, *shi* is actional as can be proven by the illegitimacy of adding the certainty marker *de* to it.

whole. Accordingly, ba is an operator at the layer of the discourse act, which can combine with all kinds of illocutions (see Section 4.2) and has a mitigating effect on any of the illocutions that it occurs with.

5 Contextual interpretation of ba

5.1 Introduction

In the preceding section, we have shown, using a variety of tests, that ba cannot be analyzed as a modal element. In this section, we will show that ba should instead be analyzed as having a generalized mitigating function, which acquires specific effects depending on the context in which it occurs. Since these varying and multiple contextual meanings of ba are specifically dependent on the kind of speech act in which they occur, we organize this section in terms of illocutionary values. For each of these, we show how the type of speech act interacts with the general mitigating function of ba in producing a specific perlocutionary effect. The illocutionary values that we will discuss are directive (Section 5.2), interrogative (Section 5.3), declarative (Section 5.4), exclamative (Section 5.5), and prohibitive (Section 5.6). We summarize our findings in Section 5.7.

5.2 Directives

Directives in Mandarin very often contain overt first person (wo; wo-men) and second person (ni; ni-men) pronouns, expressing, depending on the nature of the subject, imperative, and hortative illocutions. With a subject that includes the first person, they generally involve actions that the speaker expects to carry out without or with the addressee. The first person singular wo indicates that the speaker offers to do something on his/her own, as in (18a); the first person plural wo-men can indicate that the proposed action is inclusive or exclusive of the addressee. For instance, (18b) could mean that the speaker invites the addressee to do something together with him/her, or that the speaker tells the addressee which action he/she plans to carry out with another person present. With a subject in the second person, singular or plural, directives concern actions that the speaker or addressee(s) is/are expected to carry out, as in (18c) and (18d). Among the examples in (18), (18a), and (18b) are hortative, while (18c) and (18d) are imperative.

```
zi-ji
(18)
                                          ba
      a.
           wo
                                 qu
           1.SG
                     myself
                                          MIT
                                 go
           'Let me go by myself.' (711.2)
      b.
           wo-men
                          zou
                                    ba.
           1.PL
                          go
                                    MIT
           'Let's go.' (Li and Thompson 1981: 307)
      c.
           ni
                           gei
                                     wo-men
                                                 man-man
                                                             dao
                                                                    lai
                                                                             ba
                           give
           2.SG.FAM
                                     us
                                                 slowly
                                                             sav
                                                                    come
                                                                             MIT
           'Tell us and speak slowly.' (701.1)
                        kan
                                  zhe
                                              ban
      d.
           ni-men
                                                        ba
           2.PL
                                  PROG
                                              do
                                                        MIT
                        see
           'Do whatever you think is right.' (925.1)
```

For Li and Thompson (1981: 307), ba in (18b) is used to solicit agreement. This, however, is not the correct characterization, as the speaker intends the addressee to carry out the action rather than to agree with a proposition. As argued in Section 4.5, ba for that same reason cannot be a modal here, nor is it a marker to encode the directive mood, as the removal of ba does not affect its directive illocution.

The difference between the presence and absence of ba in (18) lies in the strength of the directive force of the utterances. Without ba, the sentences are a neutral order or exhortation, whereas with ba, the directive illocutionary force is softened, so that the speech act becomes negotiable and more suggestive. The fact that ba often co-occurs with expressions of politeness such as nin (an honorific pronoun, similar to vous in French, Qi and Zhu 2005: 62–67) also proves that ba is interpersonally/pragmatically oriented. The basic function of a directive is to order, request, or encourage the speaker or the addressee, sometimes together with the speaker, to perform some action. All these acts are potentially face threatening; therefore, in order to build up solidarity between interlocutors, a language must equip its users with means to be polite, to prevent loss of face, to leave room for the addressee to refuse or disagree, to make the addressee feel more comfortable, etc. (Hengeveld 1989: 131). In a directive speech act, mitigation, as remarked by Thaler (2012: 909), allows for the possibility of refusal and thus meets the addressee's negative face needs, such as the desire for freedom of action and freedom from constraints imposed by others. Ba in Mandarin serves this very purpose.

In addition to softening a request or a command, ba can mitigate the intensity of negative emotions in directives. Both (19a) and (19b) are directives that involve the strong negative emotions on the part of the speaker. Compared with the directives without ba, the intensity of negative emotions in directives with ba is reduced.

```
(19) a. kuai
                     gun
                              chu
                                      qu
                                              ba.
                                              MIT
         auickly
                     roll
                              out
                                      go
          'Get out as quickly as possible!' (Wo Ju/Liu Liu/CCL)
      b. xing
                     le,
                              ni
                                            bi
                                                     zui
                                                                ba!
         alright
                     MIR
                              2.SG.FAM
                                            shut
                                                     mouth
                                                                MIT
          'Alright, shut up!' (Pi Pi/writer's name unspecified/CCL)
```

In conclusion, we may say that the addition of *ba* to a directive sentence leads to the mitigation of the directive force of the sentence.

5.3 Interrogatives

The interrogatives in which *ba* occurs are often tag questions, which are more consultative than assertions and less inquisitive than polar questions. As observed by Dik (1989:257), in a tag question, the proposition is not being questioned and the nature of a declarative is altered in such a way that it sounds less assertive. Fraser (1980: 342) points out that tag questions are used by the speaker to mitigate the force of a speech act. In the case of polar questions, when their interrogative force is mitigated, they can become tag questions, which sound less inquisitive and more confirmation seeking.

We agree with Li and Thompson (1981: 307) that ba in interrogatives has the effect of soliciting agreement from the addressee, as in (20), but we differ from them in that we consider this effect to be a result of the general mitigating function of ba.

```
(20) ta bu hui zuo zhe-yang de shi ba?

3.SG not will do this.manner ATTR thing MIT

'He wouldn't do such things; wouldn't you agree?' (Li & Thompson 1981:307)
```

Without ba, (20) would be a straightforward question; with ba, the original interrogative force is mitigated such that the speaker is not asking a question but seeking confirmation from the addressee.

In addition to polar questions, there are three other types of questions in Mandarin, namely, WH questions, alternative questions, and verb-not-verb questions. WH questions request the filling of an information gap by using question words; alternative questions provide an either-or choice for the addressee, usually with the expression *hai-shi* "or"; and verb-not-verb questions likewise offer two alternatives of an event, but in this case one is the negative counterpart of the other.

When ba occurs in these question types, the interrogative force is reduced and the sentence conveys a more explicit invitation to provide an answer, as shown in the following examples (Zhu 1982: 211):

- (21) yi-gong duo-shao gian ba? a. altogether how.much money MIT 'How much altogether? Please tell me.'
 - shen-me shi-hou ba? b. ni lai 2.SG.FAM what time come MIT 'Please tell me what time you will come.'
 - hai-shi c. ni chi fan chi mian ba? 2.SG.FAM rice noodles MIT eat or eat 'You eat rice or noodles, please tell me.'
 - d. ni qu bu qu ba? 2.SG.FAM NEG MIT go go 'Would you tell me whether you are going or not?'

(21a) and (21b) are WH questions; (21c) is an alternative question, and (21d) is a verb-not-verb question. The presence of ba creates the perlocutionary effect of inviting the addressee more explicitly to respond to what has been proposed by the speaker.

No such examples are found in our sub-corpus, so we used the question key words italicized in (21) to search the modern corpus of CCL; we found instances of ba in WH questions and verb-not-verb questions such as (22a), (22b), and (22c) but not in alternative questions parallel to (21c), which apparently are somewhat less common.

(22)a. ni da-suan hua duo-shao gian ba? 2.SG.FAM intend spend how.much money MIT 'How much do you want to spend? Please do tell me.' (Guo De Gang Xiang Sheng Ji/CCL) ba? b. ni zhi-dao xie shen-me 2.SG.FAM know some what MIT 'Please do tell me how much you know.' (Translated Works/Ke Ai De Gu Tou/CCL) ba? shuo bu shuo c. ni 2.SG.FAM NEG say MIT say 'Would you say that or not? Tell me.' (Liu Liu/Lie Huo Jin Gang/CCL)

From the above it can be concluded that the addition of ba to an interrogative sentence other than a polar one creates a more inviting speech act.

5.4 Declaratives

When the speaker makes a statement, he/she can present it as a fact as in (23a), leaving no space for negotiation, or add ba to reduce its assertive force as (23b), making it easier for the addressee to disagree (see Section 4.4).

(23) a. ni zai kai wan-xiao 2.SG.FAM PROG make joke 'You are joking.' b. ni zai kai ba wan-xiao 2.SG.FAM PROG make joke MIT 'You are joking.' (524.1)

When *ba* is added to a declarative with a regular falling intonation, it mitigates the assertiveness of the statement.

When the assertion is negative rather than neutral, as when it contains a criticism, it is expressed with a prolonged duration on the final syllable. When ba is used, this prolonged duration is then expressed on ba itself. The addition of ba reduces the the effect of a negative emotion. In (24a), the mother is blaming her son for not listening to her advice. With ba, the harshness of this criticism is softened. The same is true for (24b).

(24) a. (When the son was leaving for a football match, the mother told him that he should carry a thicker jacket but the son wouldn't listen and came back coughing and sneezing. Then the mother said,) 'gan-mao le ba.' catch a cold PERF MIT

'You've caught a cold. (I told you to be careful, you just didn't listen).' (Chu and Li 2004: 3)¹⁰

b. (Someone thought he could fix the computer very easily but it turned out that the computer completely broke down. Another one said,)

'ni kan ni, chui-niu-chui da le **ba**.'

2.SG.FAM look 2.SG.FAM brag big PERF MIT

'Look at yourself, you bragged too much about yourself. (You shouldn't have done that).' (ibid)

To summarize, the effects of ba in declaratives are as follows: when the sentence has a regular falling tone, ba mitigates the assertiveness of a statement; when the sentence has a falling and prolonged tone, ba mitigates a criticism.

5.5 Exclamatives

Mandarin exclamatives, expressing the speaker's emotions (Gao 1986/2011: 584), can be made explicit by having exclamative markers such as demonstrative pronouns (zhe-me "like this"; na-me "like that"), adverbs (zhen "really"; hao "well"; tai "too") as well as particles (like a), or can be free of any such explicit markers. In the latter case, the exclamative is recognized based on its prosodic contour. Zhao and Sun (2015: 124) claim that ba cannot occur in exclamatives because exclamatives are incompatible with ba's semantic function of undetermined intention (uncertainty). It is true that epistemic modal expressions cannot occur in exclamatives. The fact that ba does occur, however, once again supports our argument that ba is not modal at all. In our sub-corpus, four exclamative instances with ba were found. In addition to example (3d) in Section 4.2, two more are exemplified in (25) below:

- nai-nai bu-cheng? tai le ba! (25) a. ye-ye xiang du tun xiao-qi grandma want alone take RHET too mean MIR MIT 'How could grandpa and grandma want to take exclusive possession of it? This is too mean, isn't it!' (2709.1)
 - ke-shi ge zheng-shu fa γi huo jiang hai yao shou qian, but award one **CLF** get prize certificate still want take money zhe zuo fa si-hu guo-fen le ba! you-xie tai this apparently somewhat too go too far MIR MIT 'But you have to pay to get the award certificate. That's taking things too far, surely?' (7389.1)

¹⁰ No similar examples to (24) have been found in CCL.

Exclamatives "express the speaker's affective response to a situation" (Siemund 2015: 702). Both (25a) and (25b) have a specific prosodic contour to express strong negative emotions of anger by complaining and criticizing. According to phonetic experiments by Chen (2007: 50), the explicit marker tai "too" exhibits the highest pitch as well as a longer duration with the word right after it taking a lower pitch. Each sentence ends with a stressed and falling tone on ba. All four instances of ba in exclamatives in our sub-corpus express strong negative emotions of the speaker, as xiao-qi "mean" in (25a) and guo-fen "go too far" in (25b). In both situations, the speaker is expressing anger as he/she regards the situation as illegitimate, unfair, or contrary to what is right. As people have prescriptive norms about the appropriateness of emotions in particular situations, failure to regulate their emotions may lead to face damage and affective impoliteness as displaying anger at someone or doing so publicly may be regarded as being inappropriately or unfairly hurtful, causing an emotional reaction such as embarrassment or anger (Culpeper 2011: 58-59). Therefore, it is understandable for the speaker to use a mitigator to reduce the intensity of an emotion for the purpose of diminishing these undesired perlocutionary effects. In comparison with the absence of ba, the presence of ba softens the strong negative emotions, making them less harsh and offensive.

5.6 Prohibitives

Prohibitives are used to prohibit an addressee from carrying out the action evoked by the communicated content. In Mandarin, negative words such as bu-yao and bie "don't" are used to express prohibitive meaning. Prohibitives are similar to directives in that they are both imperatives and can be perceived as challenging the negative face needs of the addressee. In order to make the prohibition less imposing and challenging, the speaker uses ba to mitigate the intensity of the prohibitive illocutionary force.

- (26)a. **bu-yao** shi-wang ba! rang wo **PROH** let 1.SG disappoint MIT 'Please don't let me down!' (Hu Xiao Shan Zhuang/CCL)
 - xian bu-yao zhe ba. b. mang 2110 jie-lun first **PROH PROH** make conclusion MIT busv 'First, don't jump to conclusions.' (Zhan Dou De Qing Chun/CCL)

The effect of ba in prohibitions is thus to mitigate the strength of a prohibition.

5.7 Summary

In this section, we have described in some detail the specific mitigating effects of *ba* in different contexts. These effects may be summarized as follows:

- (i) DIR + ba: mitigate a directive speech act (offer, command, request, etc.)
- (ii) Y/N INT + ba: solicit confirmation
- (iii) WH-INT/ALT-INT/VnotV-INT + ba: invite a response
- (iv) DECL + ba + a falling tone: mitigate assertiveness
- (v) DECL + ba with a falling and prolonged tone: mitigate criticism
- (vi) EXCLAM + ba: reduce the harshness of the expression of a negative emotion
- (vii) PROH + ba = mitigate the strength of a prohibition

6 Conclusions

Using the grammatical framework of FDG and authentic data from the CCL Corpus, we have argued on the basis of five criteria that Mandarin ba is not a modal element. First, ba can occur in sentences with all

possible basic illocutions; second, ba may co-occur with modal elements of all different subtypes; third, ba may occur in sentences in which the speaker is strongly committed to the propositional content; fourth, unlike modal elements, ba may occur in certain types of non-propositional utterances, and fifth, the position that ba occupies with respect to other sentence-final particles reveals that it has scope over the utterance as a whole. Next, we have shown that ba should be treated as having a unified mitigating function – attaining a higher degree of politeness and leaving more space for negotiation. The general mitigating function accommodates the specific values that the literature has previously attributed to the use of ba occurring under/in various contextual conditions.

Our findings confirm the adequacy of the treatment of mitigation proposed in FDG, the framework we have applied in this article. The fact that generalized mitigation is treated as an operator on the Discourse Act in FDG helps to explain both formal and functional aspects of the particle. From a formal perspective, it accounts for the position of *ba* with respect to other sentence final particles, as discussed in Section 4.6. From a functional perspective, it explains why the specific contextual uses of *ba* have to be understood in relation to the specific illocutions with which it combines.

Abbreviations

1	first person	MIT	mitigation
2	second person	NEG	negasstion
3	third person	PERF	perfect
ATTR	attributive	PL	plural
CERT	certainty	POL	polite
CLF	classifier	PROG	progressive
COP	copula	PROH	prohibitive
FAM	familiar	REINF	reinforcement
INT	interrogative	RHET	rhetorical question
MIR	mirative	SG	singular

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