

Representing an issue as open: Mandarin discourse particle *ba**

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Abstract The Mandarin sentence final particle *ba* has been described as expressing uncertainty or soliciting agreement in declaratives ('weakening' an assertion, Han 1995, Li 2006 a.o.). However, *ba*-interrogatives appears to be 'strengthening' a question to a demand: "you must answer this question," similar to the cornering effects associated with *or not* questions (Biezma 2009 a.o.). To account for this "weak" and "strong" contrast, some have postulated a lexical ambiguity: *ba*₁ in declaratives and *ba*₂ in interrogatives (Chao 1968, Zhu 1999). In this paper, I discuss new data showing that *ba*-declaratives are not always less forceful and *ba*-interrogatives are not always more forceful than their unmarked counterparts, which challenges current theories. I propose that, uniformly, the use of *ba* represents an issue as open. The "weak" and "strong" effects are results of *ba* interacting with the discourse context.

Keywords: speech acts, discourse particles, clause types, commitment, cornering effect

1 Introduction

The Mandarin sentence final discourse particle *ba*, as in (1) and (2), can occur in both declaratives and interrogatives. It has been previously reported that this particle yields opposite effects in declaratives and interrogatives (Han 1995). In (1), *ba* occurs in a declarative clause, and the utterance seems "weak": the speaker is uncertain about the age of the cousin. In (2), the particle occurs in an interrogative clause, and the question appears "strong": L is demanding W to stop dodging and directly answer his question.

- (1) A: How old is my cousin?
B: Kuai ershi le **ba**.
Almost 20 ASP BA

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“Almost 20 (I think).”

(2) *Context: Laodonggouzi (L) was chased by Wei Shisan (W), and finally L was backed into a corner.*

W: Finally! (gave a monologue about how clever he is finding L)

L: Cut the crap, what do you want?

W: Let me tell you, you have met your match. I'm not afraid of anything.

L: Haishi chedan, ni yao gan shenme **ba**!

Still bullshit you want do what BA

“That's still bullshit, just tell us, what do you want?”

Gao Mantang and Sun Jianye, 1999, *Chuang Guandong*

Some characterize the effect of *ba* in declaratives as expressing uncertainty or low commitment (Han 1995, Li 2006, Chu 2009, Ettinger & Malamud 2014), similar to rising declaratives (Gunlogson 2008, Farkas & Roelofsen 2017, Jeong 2018, Rudin 2018, among many others). However, the effect of *ba* in interrogatives does not resemble the effect of the final rising intonation, but is similar to the cornering effect associated with English Negative Alternative Questions (NAQ, *do you want a beer or not*, Biezma 2009, Biezma & Rawlins 2017, Beltrama, Meertens & Romero 2018, Beltrama, Meertens & Romero 2020). Because of this sharp contrast in forcefulness, previous accounts claim that these are two different lexical entries, *ba*₁ in declaratives and *ba*₂ in interrogatives (Chao 1968, Zhu 1999).

In this paper, I argue that the correlation between clause type and the forcefulness of *ba* is weaker than observed in (1) and (2): *ba*-declaratives can be strong and *ba*-interrogatives can be weak given the right context. A closer look at *ba*-declaratives and *ba*-interrogatives suggests that the particle always requires a salient question in the discourse. The utterance marked by *ba* serves as part of the strategy to obtain an answer to the prior question, but this question remains unresolved after updating the context with the *ba*-utterance. I thus propose that what *ba* means is that it represents an issue as open. With this simple semantics for *ba*, we can derive the various effects *ba* has when interacting with different discourse contexts.

This paper is structured as follows. Section 2 provides a detailed examination of *ba*-declaratives and *ba*-interrogatives, with a particular focus on the felicity conditions of *ba* in these two clause types. Section 3 then details the current proposal, namely *ba* represents an issue as open, and provides an analysis in the discourse model proposed by Farkas & Bruce (2010) and Farkas & Roelofsen (2017), with the addition of a Question under Discussion (QUD) stack (Roberts 2012). Section 4 tentatively explores how this proposal could be extended to imperatives with *ba*. Section 5 concludes the paper with a discussion of how this analysis on derives the effect of uncertainty and the cornering effect.

2 Empirical picture

In this section, I will show that *ba*-declaratives are not always “weak”, and *ba*-interrogatives are not all “strong”. Given the right context, *ba*-declaratives can be “strong” and *ba*-interrogatives can be “weak.” Moreover, *ba* has the same felicity conditions when appearing with both clause types: it requires a salient question in the context and represents this question as unresolved.

2.1 Declaratives and *ba*

As mentioned above, *ba* in declaratives often appears to make the speakers’ contribution “weak.” This alleged “weakness” of *ba*-declaratives has been explicated in many ways. However, as I will demonstrate, no matter how one articulates this “weakness,” there are always “strong” *ba*-declaratives.

The first kind of description of this “weakness” is uncertainty (Han 1995, Li 2006, Chu 2009, Ettinger & Malamud 2014), like a possibility modal. This description seems correct in some cases. For example, in (1), mother’s reply “almost 20 *ba*” indicates to her interlocutor that she is uncertain that the cousin is almost 20. However, *ba*-declaratives can be used in cases where the speaker is certain about the prejacent of *ba*, as seen in (3):

- (3) *Context: A and B are talking about a group of visitors they are hosting.*
A: Our guests are from Sichuan.
B: Tamen shi Guangdong laide **ba**. Wo ting tamen jiang guangdonghua
They are Guangdong from BA I listen they speak Cantonese
laizhe.
ASP
“They are from Guangdong. I heard them speaking Cantonese.”

In this example, B is certain that the guests come from Guangdong, and even provides evidence for his statement.

Even though the *ba*-declarative in (3) does not indicate uncertainty, it still appears “weak.” This type of “weakness” is described as softening the statement (Ettinger & Malamud 2014). In this case, speaker B uses *ba* to appear to be more polite and less non-confrontational.

However, *ba*-declaratives can be found in cases where the speaker is certain and impolite, as seen in (4):

- (4) A: It’s raining.
B: No it’s not.
They both walk outside and see that it is indeed raining.

A: Xiayu le **ba!**
 rain ASP BA!
 “(Please admit) It’s raining.”

The *ba*-declarative in (4) carries no uncertainty on the speaker’s part (or the addressee’s), as the fact that it *is* raining outside is known to both the speaker and the addressee prior to the *ba*-declarative. This *ba*-declarative also appears to be rude and impolite, as opposed to (1) and (3).¹

A similar example for certain and impolite *ba* can be found in cases of deprecation:

(5) A: For April Fool’s, I’m going to fake my death to scare my mom.
 B: Ni you maobing **ba!**
 you have problem BA
 (literal) “You have a problem!” (similar to “What’s your problem?!”)

In this example, speaker B is clearly not uncertain or being polite. Therefore, we can conclude that *ba* does not necessarily express uncertainty or politeness.

Another description of *ba* as a “weakening” particle is that *ba*-declaratives are used to solicit agreements (Li & Thompson 1981), instead of making assertions. In this account, *ba* is “weak,” because unlike regular declaratives, which commits the speaker to the propositional content of the utterance, the speaker of a *ba*-declarative waits for the addressee’s agreement to make a commitment, which makes the declarative less forceful. However, this description is problematic as well: as we have seen in (1), *ba*-declaratives are felicitous in contexts where the addressee is less knowledgeable than the speaker, and thus cannot agree or disagree with the speaker. In these cases, the *ba*-declarative cannot be used to solicit the addressee’s agreement.

If the use of *ba* goes beyond expressing uncertainty, politeness, or soliciting agreement, as I have demonstrated in this section, we are left with the question of what *ba* means. Before answering this question, I will first examine the felicity conditions of *ba*, an issue that remains underexplored in the literature.

¹ Yuan (2020a) correctly points out that the *ba*-declarative as seen in (4) is associated with a rising intonation. One might argue that the rising contour changes the “uncertainty” interpretation of *ba*, but as we will see in example (ex:ba-rhe), *ba* with a falling contour can also be interpreted as “strong.” It is also worth noting though that in my judgement and others that I have consulted this intonation is different from the regular final rise associated with rising declaratives in Mandarin: while rising declaratives can end on a high rise, *ba* only allows a low rise.

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2.1.1 No out-of-the-blue contexts

Like English rising declaratives (Gunlogson 2008 a.o.), *ba* cannot be used in out-of-the-blue contexts, but requires a prior question. Adapting Gunlogson's example (Gunlogson 2008: p.3) to Mandarin, when uttered without any contextual setup, *ba* is infelicitous, as seen in (6). Remove *ba* from (6), and the utterance is perfectly felicitous.

(6) *No contextual setup; Gina to her officemate*

G: #Zhoumo yinggai tianqi bucuo *ba*.

Weekend must weather good BA

(intended) "The weather is supposed to be good this weekend."

A salient question in discourse can be implicit (Roberts 2012). Thus, requiring a prior question does not mean that a *ba*-declarative cannot be the first overt utterance in a discourse:

(7) *Context: It's the Spring Festival. A and B are talking and they hear a shriek sound of explosion in the distance.*

A: Youren zai fangpao **ba**

someone is firework BA

"Someone is lighting up fireworks."

In (7), both the speaker and the addressee hear the explosion, and the question *what is the sound* is salient to both. In this case, the use of a *ba*-declarative is felicitous.²

2.1.2 The prior question remains open

As seen in the last section, *ba* requires a salient question in the context and cannot appear out of the blue. However, the salient question itself is not enough to license *ba*:

(8) A: Is it raining?

B: It's raining.

² Note that the same is true for *ba*-declaratives with a final rise as well (cf. Yuan 2020a):

(i) *Context: A and A's mom looking at A's grades.*

A: Kao-de hai bucuo **ba**?

Exam-PRT actually good BA

"I did pretty great, huh?"

Here, with an implicit question *did A do well in her exam*, the *ba*-declarative with a final rise can occur discourse initially.

C: #En, xia le **ba**.
 Yeah rain ASP BA
 (intended) “Yeah, it is **ba**.”

In this example, A’s utterance sets up a salient question that C’s utterance addresses, and yet the *ba*-utterance is infelicitous (a *ba*-less counterpart would be felicitous in this context). I believe this is because the use of *ba* also imposes an additional requirement that the question remain open even after updating the context with the *ba*-utterance. This condition isn’t met in (8), since B claims that it’s raining, and if C agrees with B, the question *is it raining* is resolved.

2.1.3 Speaker commitments of *ba*-declaratives

Previously, some have characterized *ba* in declaratives as expressing the speaker’s low commitment (Li 2006, Han 1995), or the speaker’s tentative commitment (Ettinger & Malamud 2014), similar to other commitment-manipulators like rising declaratives (Gunlogson 2008, Malamud & Stephenson 2015, Jeong 2018, Rudin 2018). However, *ba* is quite different from rising declaratives when it comes to speaker commitments.

First, a *ba*-declarative can be used to express disagreement, but rising declaratives cannot:

- (9) A: My cousin is 20.
 a. B: #budui, mei dao 20?
 no NEG reach 20
 (intended) “No, he’s not 20 yet?”
 b. B: budui, mei dao 20 **ba**
 no NEG reach 20 BA
 “No, he’s not 20 yet.”

Disagreement has been characterized as the speaker and hearer carrying incompatible commitments (Lascarides & Asher 2009, Farkas & Bruce 2010). A rising declarative is usually characterized as suspending speaker commitments, and as seen in (9a), it is infelicitous to reject Speaker A’s statement with a rising declarative. In contrast, *ba* as seen in (9b) can reject Speaker A’s statement, suggesting that *ba* commits the speaker to $\neg p$.

Another type of evidence comes from contradicting commitments. If a speaker commits to p , it is infelicitous for her to immediately commit to $\neg p$ without an intervening context change. Similarly, the speaker cannot utter p -*ba* and $\neg p$ -*ba* without intervening context:

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- (10) A: How old is my cousin?
a. B: 20 duo le? Bu dao 20?
20 more ASP NEG reach 20
“Over 20? Not yet 20?”
b. B: #20 duo le **ba** bu dao 20 **ba**
20 more ASP BA NEG reach 20 BA
(intended) “Over 20? Not yet 20?”

As shown by (10a), uttering $p?\neg p?$ does not result in self-contradiction, which is consistent with rising declaratives manipulating speaker commitments. However using *ba* in the same situation would lead the speaker to contradict herself. This difference suggests that when Speaker B utters *p-ba*, she is committed to *p*, and thus cannot commit to $\neg p$ at the same time.

Additionally, rising declarative in Mandarin cannot be used to condemn someone, but *ba* can:

- (11) A: For April Fool’s, I’m going to fake my death to scare my mom.
a. B: #Ni you maobing?
you have problem
(intended) “You have a problem?”
b. B’: Ni you maobing **ba**!
you have problem BA
(literal) “You have a problem!” (similar to “What’s your problem?!”)

Again final rise is infelicitous, because to accuse someone of something requires the speaker to undertake a strong commitment, which is incompatible with the contribution of the final rise. But as seen in (11b), *ba* is felicitous in this case.

To summarize our discussion of *ba*-declaratives so far: *ba* represents a salient but possibly implicit prior question as open, and it commits the speaker to the propositional content of its prejacent declarative.

2.2 Interrogatives and *ba*

As mentioned earlier, *ba* appears to be “strong” in interrogatives. Similar to *ba*-declaratives, the “strengthening” effect of *ba* in interrogatives has also been explicated in various ways. A typical characterization is that the *ba*-interrogative conveys impoliteness, impatience, and irritation (Han 1995, Ettinger & Malamud 2014, Yuan 2020b) So the question in (2), repeated here as (12), is not simply “what do you want,” but “you must directly answer this question, what do you want.”

- (12) *Context: Laodonggouzi (L) was chased by Wei Shisan (W), and finally L was backed into a corner.*
 W: Finally! (gave a monologue about how clever he is finding L)
 L: Cut the crap, what do you want?
 W: Let me tell you, you have met your match. I'm not afraid of anything.
 L: Haishi chedan, ni yao gan shenme **ba**!
 Still bullshit you want do what BA
 "That's still bullshit, just tell us, what do you want?"

The impatience associated with *ba*-interrogatives is similar to the cornering effect associated with Negative Alternative Question in English such as *do you want a beer or not* (NAQ Biezma 2009, Biezma & Rawlins 2017, Beltrama et al. 2020). However, *ba*-interrogatives are different from NAQs. For NAQs, the addressee is given only *two* alternatives, and these alternatives must be complementary to each other. *Ba*, on the other hand, can occur in *wh*-questions, where there might be more than two alternatives. Take (12) as an example: the list of alternatives associated with L's *ba*-interrogative is not different from L's first *wh*-question, and yet the *ba*-interrogative conveys a stronger attitude. This suggests that the "strengthening" effect does not come from the properties of the alternatives.

This cornering effect is claimed to be contributed by *ba*, whose interpretation in interrogatives is "I insist you tell me the answer" (Han 1995, Ettinger & Malamud 2014, cf. Yuan 2020b). However, the forcefulness of *ba*-interrogatives is not necessarily tied to the particle. On the one hand, a *ba*-interrogative does not have to be forceful. A *ba*-interrogative can be associated with a polite question that does not convey irritation or impatience:

- (13) Waiter: Hi! Welcome. What do you guys want today?
 Guest: Hm, there are so many options here . . .
 Waiter: Nin ai chi mifan haishi miantiao **ba**?
 You_{polite} love eat rice or_Q noodles BA
 "(This will help you decide) Do you prefer rice or noodles?"

In this example, the *ba*-interrogative is not a demand: seeing that his first question is too difficult to answer, the waiter uses a different question to help the guests answer the bigger question *what do you want*. The politeness of the sentence is highlighted by the polite version of the second-person pronoun *nin*.

On the other hand, an unmarked question can express impatience and irritation given the same context. If we replace the *ba*-interrogative with an unmarked interrogative in (12), L still expresses impatience and irritation:

- (14) L: Cut the crap, what do you want?
 W: Let me tell you, you have met your match. I'm not afraid of anything.

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L: Haishi chedan, ni yao gan shenme?
Still bullshit you want do what
“That’s still bullshit, what do you want?”

Since L is not using a *ba*-interrogative in this modified example, and yet the question still expresses impatience, we can conclude that the “cornering effect” observed in (12) does not necessarily stem from *ba*, but arises pragmatically from L re-asking a question that W failed to answer.

Therefore, like *ba*-declaratives, *ba*-interrogatives can be both “strong” and “weak”. Next we are going to examine the felicity conditions of *ba*-interrogatives.

2.2.1 No out-of-the-blue contexts

Similar to declaratives, *ba*-interrogatives also require a prior question: in (15), without any prior relevant questions, the *ba*-utterance is infelicitous but the regular question in (b) is felicitous:

- (15) *No prior setup, Gina to her officemate*
a. #A: Zhoumo hui-bu-hui xiayu **ba**?
weekend will-not-will rain BA
(intended) “Will it rain this weekend or not?”
b. A’: Zhoumo hui-bu-hui xiayu?
weekend will-not-will rain
“Will it rain this weekend?”

This required prior question can be implicit, as shown in (16).

- (16) *Context: A and B are making bao buns. B stares at the ingredient, clearly doesn’t know what to do next*
A: Ni daodi hui-bu-hui bao **ba**?
you on-earth can-not-can make BA
“Can you make buns or not?”

In (16), even though there is no explicit question prior to B’s *ba*-utterance, there is an implicit question, namely *Can B make bao buns*, and the *ba*-interrogative is felicitous.

An additional requirement is that this prior salient question must be acknowledged by the addressee.

- (17) A: Fred chi-le shenme? #Fred chi-meichi douzi **ba**
Fred eat-ASP what Fred eat-not-eat beans BA
(intended) “What did Fred eat? Did Fred eat the beans?”

In (17), A asks two questions in one turn without giving B a chance to acknowledge the first question, and the *ba*-interrogative is infelicitous. When B acknowledges the first question, even silently, *ba* is felicitous again, as seen in (18).

(18) A: What did Fred eat?



B:

A: Fred chi-mei-chi douzi **ba**?
 Fred eat-not-eat beans BA?
 “Did Fred eat the bean”?

Thus, *ba*-interrogatives require a salient prior question in the discourse. This question can be implicit, but it must be accepted by the addressee.

2.2.2 Being relevant is at-issue

As seen in the last section, *ba*-interrogatives require a salient prior question in the discourse. This prior question can be the same question as the question in the prejacent of *ba*, or it can be a superquestion to the *ba*-interrogative.

As we have seen in (2), L uses a *ba*-interrogative to repeat the same question in the previous turn. In (13), the waiter’s *ba*-interrogative *do you want rice or noodles* is different from the salient question *what do you want*. As defined by Roberts (2012), a question q_2 is a subquestion to another question q_1 iff every proposition that answers q_1 answers q_2 as well (p.7). For (13), every answer given to *what do you want* is also an answer the waitress’ *ba*-interrogative, so the *ba*-interrogative serves as a sub-question to the prior question. The waiter in this example is trying to use a subquestion to answer the bigger question, namely the *ba*-interrogative serves as part of a *strategy* to obtain an answer to the prior question.

While being relevant is a basic requirement for all felicitous utterances (Sperber & Wilson 1986, Grice 1989, among many others), *ba* makes this requirement part of the speaker commitments.³ Consider (19): both the unmarked question and the *ba*-interrogative imply that B’s question is relevant to figuring out *why the best setter is not on court*.

(19) Context: A is watching volleyball and narrating to B, who’s not at the TV

A: Hm they are not sending in their best setter.

a. B: shui shi zhugong **ba**?
 who is outside hitter BA
 “(This is relevant) Who is the outside hitter on court?”

³ Thanks to Deniz Rudin for suggesting that relevance might be at-issue for *ba*.

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- b. B: shui shi zhugong?
who is outside hitter
“Who is the outside hitter on court?”

However, the way these two types of questions encode this relevance relation is different: while the unmarked question (19) requires the addressee to infer the relevance relation, the *ba*-interrogative explicitly encodes this inference as part of its at-issue content. For example, the addressee can comment on the relevance inference of a *ba*-interrogative.

(20) *Context: same as above*

A: Hm they are not sending in their best setter.

B: shui shi zhugong **ba**?
who is outside hitter BA

“(This is relevant) who is the outside hitter on court?”

A: Li Yingying, but how’s that relevant to the setter?

In (20), when Speaker B uses a *ba*-interrogative, A can directly comment on the relevance of B’s question, suggesting that the relevance of a *ba*-interrogative to the prior question is part of the at-issue content of the utterance.

Moreover, it is possible to cancel the relevance inference for an unmarked question, but not for a *ba*-interrogative:

(21) *Context: same as above*

A: Hm they are not sending in their best setter Ding Xia.

a. B: shui shi zhugong **ba**? # wo jiushi haoqi, gen weisha Ding Xia
who is outside hitter BA I just curious with why Ding Xia
mei shang meiguanxi.
not on irrelevant

(intended) “Who is the outside hitter on court? It’s irrelevant to your question about why Ding Xia is not on court; I’m just curious.”

b. B’: shui shi zhugong? wo jiushi haoqi, gen weisha Ding Xia mei
who is outside hitter I just curious with why Ding Xia not
shang meiguanxi.
on irrelevant

“Who is the outside hitter on court? It’s irrelevant to your question about why Ding Xia is not on court; I’m just curious.”

As seen in (21), it is infelicitous for B to backtrack his commitment to the relevance of his question if B utters a *ba*-interrogative. In contrast, an unmarked question’s

relevance inference can be canceled if followed by “this is irrelevant,” as seen in (21b).

To summarize our discussion of *ba*-interrogatives: *ba* calls for a salient, accepted, possibly implicit question in the prior discourse. Additionally, the question expressed by the preajcent of *ba* must serve as part of a strategy to answer this prior question. The relevance between the *ba*-interrogative and this prior question is part of the speaker commitments.

3 A unified analysis

As we can see in the previous section, declarative and interrogative *ba* share the more similarities than previously expected: they both require a salient, accepted, possibly implicit question in the prior discourse, and represent that this question is still open. These similarities point us to the possibility of providing a unified analysis for *ba*. I formalize this account within the Table Model developed by Farkas & Bruce (2010) and extended by Farkas & Roelofsen (2017), with the addition of the Question under Discussion (QUD) stack (Roberts 2012).⁴

3.1 Background

Here are the basic components of the model:

- (22) a. Common Ground (*cg*): a set of propositions already confirmed by the discourse participants
- b. Discourse Commitments (*DC*) for each speaker: a set of propositions publicly taken in a conversation as being true of the world of the conversation
- c. The Table (*T*): a push-down stack of propositions/questions to be resolved, with $top(T)$ representing the top item of the stack, i.e. what’s currently at-issue
- d. The Projected Set (*ps*): a set of potential CGs giving possible resolution(s) of the issue on the Table in the expected next stage of the conversation.
- e. The set of Questions under Discussion (*QUD*)⁵

So the context *C* is a tuple: $C_n = \langle DC_n^s, DC_n^a, T_n, cg_n, ps_n, QUD_n \rangle$ where:

- (23) a. DC_n^s and DC_n^a are the sets of discourse commitments of the speaker and the addressee respectively
- b. T_n is a Table

⁴ See Rudin 2018 for a further discussions and evidence for separating the QUD stack from the Table.

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- c. cg_n, ps_n are a Common Ground and a Projected Set respectively, and
 $ps_n = cg + top(T)$
- d. QUD_n is a set of questions

The model inherits the definition of *Relevance* in terms of QUDs from (Roberts 2012: p.6:18-21)):

- (24) a. A move m is *Relevant* to the question under discussion q , iff m either introduces a partial answer to q (m is a assertion) or is part of a strategy to answer q (m is a question).
- b. A question q_0 is part of a strategy to answer q iff answering q_0 contextually entails a partial answer to q

3.2 Proposal

To capture the intuition that *ba* represents an issue as open, I propose that *ba* has a postsupposition, namely that the immediate QUD cannot be resolved after updating with the prejacent of *ba*. Postsuppositions of an expression must be satisfied after the context has been updated with the at-issue content of the expression (Farkas 2002, Lauer 2009, Brasoveanu 2013, Henderson 2014). In addition to the postsupposition, *ba* also commits the speaker to the current utterance being *Relevant* to the immediate QUD.

- (25) If an utterance UTT would update a context $C_0 = \langle DC_0^s, DC_0^a, T_0, cg_0, ps_0, QUD_0 \rangle$ to $C_1 = \langle DC_1^s, DC_1^a, T_1, cg_1, ps_1, QUD_1 \rangle$, then UTT -*ba*:
 - a. requires: $\exists q_0 \in QUD_0$ such that $q_0 \cap cg_1 = \emptyset$
 - b. updates the context in the same way as UTT , except:
add to DC_1^s and T_1 that UTT is *Relevant* to q_0

In our proposal, (25a) captures the postsupposition of *ba*, namely that it requires a salient, accepted, possibly implicit question, and it must remain unresolved in the output context. (25b) captures the contribution of *ba*, namely it commits the speaker to the current utterance being *Relevant* to the QUD, and add this information to the Table. For a *ba*-declarative, this means that the utterance provides at least a partial answer to the QUD. For a *ba*-interrogative, this means that the utterance is

5 In Roberts' original definition, the QUD stack is a function from a discourse move to ordered subsets of the set of accepted questions in the discourse. For the purposes of this paper, the QUD stack is simplified as a set of questions, with the top item being the immediate QUD. It could be that *ba* can take up a question embedded deeper in the QUD stack (Yuan 2020b). To account for such cases, one might need to use Roberts' definition again. But for the purposes of this paper, the simplified version suffices.

part of a strategy to resolve the QUD. Notice that this commitment to *Relevance* is in addition to the regular updates that the prejacent of *ba* add to the Discourse Comments of the speaker. A *ba*-declarative would still commit the speaker to the propositional content of the prejacent declarative, just as an unmarked declarative would; a *ba*-interrogative would commit the speaker to the informative content of the prejacent interrogative, same as an unmarked interrogative (Farkas & Roelofsen 2017).

3.3 How it works

In declaratives, *ba* represents a previous question as open after the context is updated with the *ba*-declarative. In the current account, the previous question is the immediate QUD in the input context to *ba*. As QUDs are the salient, accepted, but unanswered questions in the context, the proposal can account for the fact that *ba*-declaratives cannot occur out-of-the-blue, and must be addressing a salient question in the context, as we have seen in Section 2.1.1.

The postsupposition also requires that the QUD must remain unresolved in the output context. This requirement captures the infelicity of *ba*-declaratives as agreement moves (??a) repeated here as (26):

- (26) A: It's raining.
 #B: En, xia le **ba**.
 Yeah rain ASP BA
 (intended) "Yeah, it is."

In this example, before B's utterance, *it's raining* is already on the Table, and B's agreeing move would add this proposition to the Common Ground and resolve the question *is it raining*. Therefore, *ba* is infelicitous in the context.

Besides representing a question as open, *ba* commits the speaker to the prejacent being *Relevant* to the question. For declaratives, this means that the prejacent of *ba* provides a partial answer to the QUD.

In addition to the *Relevance* commitment, a *ba*-declarative undertakes the same commitment as an unmarked declarative would. This explains why, as we have seen in (10b) in Section 2.1.3, it is infelicitous to utter *p-ba* and $\neg p$ -*ba* without intervening context, and one can use *ba* to express disagreement, as seen in (9). Rising declaratives that do not necessarily commit the speaker to its propositional content, exhibit the opposite pattern.

Because the speaker have many reasons to keep a question open, *ba*-declaratives can be both "weak" and "strong". If the speaker thinks their answer may not be a good solution to the salient question, using *ba* expresses uncertainty, as shown by (1). In the example, the speaker uses *ba* to signal to the addressee that she does not

have confidence in her answer. If the speaker thinks their answer *is* a good solution, using *ba* to leave the salient question open conveys politeness, as the speaker leaves room for the addressee to provide their input. In (27) for example, B is quite certain of her own judgement, but she leaves A with the authority to resolve the question, expressing politeness. In these cases, *ba*-declaratives appear “weak”.

- (27) A: Which dress is better, the pink one or the red one?
B: Fensede **ba**.
pink one BA
“The pink one (I think).”

For “strong” *ba*-declaratives like (4) in Section 2.1, leaving the salient question open makes the *ba*-utterance achieve the similar effect as a rhetorical question: crucial for the felicity of *ba* in this situation is that “it is raining” must be known to both the speaker and the addressee, so the question “is it raining” is closed. By representing a question as open when the question should have been closed, the speaker is coercing the addressee to publicly concede.

In interrogatives, *ba* also represents a salient, accepted, and unanswered question in the previous discourse as open, and commits the speaker to (and leaves on the Table) the preajacent interrogative being *Relevant* to the prior question. Because the *Relevance* inference is part of the speaker’s Discourse Commitment, this proposal would correctly predict that the speaker cannot contradict this inference, as we have seen in Section 2.2.2. Additionally *ba* leaves this *Relevance* inference on the Table, so the proposal would predict that the addressee can comment on this inference. As we have seen in Section 2.2.2, Speaker A in (19) could comment that Speaker B’s question is not relevant to the salient question in the context.

For *ba*-interrogatives, the sense of impoliteness that people sometimes associate with *ba* comes from the pragmatics of the context rather than the particle itself. If the speaker thinks the addressee is uncooperative and dodging questions, using a particle that represents the question is open conveys insistence and impatience. In (2), for example, Speaker A re-asks his question with *ba* to reprioritize a question that B fails to answer. But when the speaker merely wants to adopt a different strategy to answer the big question, such as in (13), *ba*-interrogative does not appear to be impatient.

4 Imperatives and *ba*

In addition to interrogatives and declaratives, *ba* can also occur in imperatives:

- (28) A: What should I do this weekend?
B: Shoushi shoushi nide fangjian **ba**
tidy tidy your room BA

“(Maybe) clean your room.”

In this example, the *ba*-imperative expresses a suggestion rather than an order, and the speaker appears to be polite and non-imposing. The particle in imperatives seems to fit with our descriptions for *ba*-declaratives and *ba*-interrogatives: by using a *ba*-imperative, the speaker represents an issue as open. In (28) the speaker offers her suggestion, but represents the question *what A should do this weekend* as open, allowing A to decide whether to take up this suggestion.

One difference between imperatives and assertions with *ba*, however, is that while agreeing with *ba*-declaratives is infelicitous (8), conceding with *ba*-imperatives is felicitous:

(29) A: I want to play outside.

B: En, qu **ba**

Yeah go BA

“Fine, you can go.”

In (29), B uses a *ba*-imperative to express her agreement to allow A outside. [Ettinger & Malamud \(2014\)](#) labelled this effect of *ba* as the “reluctance” effect. After B’s utterance, it seems that the output context is updated to one where the question “can speaker A play outside” is closed.

The literature on imperatives is diverse; it is hard to pinpoint the exact QUD associated with an imperative, and developing such a model is beyond the scope of this paper. However, it is worth noting that conceding with a *ba*-imperative is only felicitous when the preference of the *addressee* is being discussed, as seen in (29). In these examples, after the reluctant *ba*-imperative, it remains to be seen whether A will take up the suggestion: the question “what should I (A) do” is up to A to decide, and B’s permission is only part of what is required to resolve the question. When the speaker’s own preference is at stake, it is infelicitous to use *ba*-imperative to express agreement again:

(30) A: Let’s go to the beach!

a. #B: Zou **ba**!

go BA

(intended) “Let’s go!”

b. B: Zou!

go

“Let’s go!”

In the above example, B cannot use *ba* to accept A’s suggestion: if the question “what should we do” is closed after updating with the *ba*-imperative, *ba* is infelicitous

again. This pattern seems to suggest that *ba* in imperatives also represents a question as open, but we need further research on the relationship between imperatives and their QUDs to have a better understanding of *ba*-imperatives.

5 Conclusion

In this paper, I provide a unified analysis of the sentence final particle *ba* in Mandarin. It has been reported that *ba*-declaratives are “weak,” similar to rising declaratives, and *ba*-interrogatives are “strong,” similar to English Negative Alternative Questions. I show that *ba*-declaratives can be “strong” and *ba*-interrogatives “weak,” given the right context. Moreover, the particle has the same felicity conditions in both declaratives and interrogatives: it requires a salient question in previous discourse, and that this question must remain open after updating the context with *ba*. Based on these observations, I propose that *ba* represents an issue as open. Leaving an issue open can, in context, be interpreted as both strengthening and weakening an utterance.

This analysis of *ba* I proposed in this paper shows one more way in which discourse particles can interact with the context to express uncertainty. As shown in this paper, although *ba* can express uncertainty in many cases, this “weakening” effect does not come from suspending speaker commitments (a typical analysis of rising declaratives), or modifying the propositional content of an utterance (a typical analysis of possibility modals). I have argued that representing an issue as open is a third option to express uncertainty. This option is particularly suitable for *ba*, as the particle can be both “weak” and “strong,” which are both compatible with representing an issue as open. Particles that express the conclusion of an issue, such as *namen* in Tagalog (AnderBois 2016), have been observed to have the opposite effect, namely expressing certainty or obviousness.

In particular, representing an issue as open can help *ba* receive a “strong” interpretation similar to a cornering question. Previous analyses of English Negative Alternative Questions (*do you want a beer or not*) modeled cornering as a semantic effect. But it appears that the effect can be derived pragmatically, as it arises with *ba*-interrogatives when the speaker has to re-ask a question that has not been satisfactorily answered. I leave open whether this analysis can also be applied to cornering questions in English.

In addition to declaratives and interrogatives, *ba* can also occur in imperatives. There appears to be good reasons to believe that the present analysis can be extended to *ba*-imperatives, but to do so properly, more needs to be said about how imperatives interact with the context and in particular the QUD stack. There are a number of options available to model imperatives in the Table and QUD model. In future work, I plan to examine these options to offer a full analysis of *ba*-imperatives.

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