Updating unexpected moves[1]

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Abstract. This paper investigates the behaviours of the particle *ne* in the sentence-final position along with its interactions with different clause types in Mandarin. I present novel data showing that *ne* marks an *unexpected move* in both declaratives and interrogatives. In declaratives the speaker believes that the content of the prejacent of *ne* is not among what the addressee has expected in future discourse. In questions *ne* marks that the current move is not in the standard flow of a conversation. I propose that *ne* signals that the speaker believes that the current discourse move she makes is not *optimal*[2] for the addressee: the speaker chooses to use *ne* when the discourse agents have conflicting beliefs, or the speaker wants to redirect/reset the conversational goals. The current account provides broader coverage of empirical data, and sheds light on the discourse dynamics on non-canonical/uncooperative conversations.

Keywords: discourse particles, clause types, pragmatics, Mandarin.

1. Introduction

Utterances of natural language are analogous to making a move in a game (Wittgenstein 1953). On this view, utterances that interlocutors in a conversation make can be understood as actions/moves they decide to take at some certain point in the conversation. Discourse particles, crosslinguistically, have been shown to help the interlocutors to understand each other's utterance choices: they can be anaphoric to discourse structures (Rojas-Esponda 2014, 2015); they can guide interlocutors actions in the next step (Davis 2009, 2011); they may be used to convey interlocutors' epistemic states (Zimmermann 2009; Hara 2018; Theiler 2021); and so on. This paper focuses on the discourse particle *ne* in Mandarin, a language which has a very rich inventory of discourse particles. To foreshadow a bit, I will show that the particle signals that a questioning/asserting move is unexpected in a uniform way.

Like many other particles in the language, *ne* can occur both sentence-internally as a topic marker, and sentence-finally as a discourse marker (Chao 1968; Chu 2009; Constant 2014 among many others), as shown in (1) and (2). The current paper only concerns with its sentence-final uses. When *ne* is used sentence-finally, it interacts with both interrogatives (as in (2)) and declaratives (as in (3)), as we will see in details in the following sections.

(1) zhe-jian shi **ne**, meiyou name jiandan.
this-CL thing NE NEG that simple
'This thing is not that simple.'

(2) ni xiang he shenme **ne**?
you want drink what NE
'What do you want to drink?'

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[2]Given that I use notions such as 'flow of conversation' and 'optimality' of a discourse move, which I make more precise, the paper seeks to contribute conceptually to the literature too.

(3) wo tingshuo yuehan hui lai **ne**.
I hear John will come NE
'I heard that John will come.'

It is worth noting that *ne* is an optional marker: it can only appear when the discourse itself is coherent, but cannot be used as repair[3]. For example, in (4), before A said that John broke his leg, A and B were talking about plums. A then talked about something irrelevant. To repair the incoherent discourse, one can say 'I like plums', but not with *ne*. This shows that the unexpectedness of the content of the containing clause of *ne* is not to be defined just with respect to the last move in the discourse.

(4) [A and B were talking about plums. A told B that John broke his leg, B says:]

wo xihuan meizi ***#ne***
I like plum NE

'I like plums.'

In the rest of the paper, I will show that *ne* marks that the current discourse move is 'unexpected' both in declaratives and interrogatives: in interrogatives, *ne* signals that the current move is not in the standard flow of the conversation; in declaratives, the particle suggests that neither the semantic content nor the asserting act itself is among what the addressee 'expects'. I thereby propose that *ne* is typically used to acknowledge that the speaker knows the current move is not *optimal* for the addressee[4].

The paper is structured as follows: §2 discusses instances of *ne* in questions. §3 lays out the main proposal that *ne* marks the current move as not optimal for the addressee. §4 shows that the proposal correctly predicts the distribution of *ne* in declaratives. §5 compares the current proposal with the Contrastive Topic (CT) approach by Constant (2014). I will show that the claim that *ne* is a CT marker is a bit too strong and we might want to take one step back and carefully examine the functions of *ne*.

2. *ne* in interrogatives

In Mandarin, sentence-final ne occurs predominantly in questions. Most literature claims its discourse function to be that of marking a *wh*-question. For example, Cheng (1997) argues that *ne* is clause-typing particle, indicating that the host clause it attaches to is a *wh*-question. However, it is not the case that *ne* is always acceptable in questions. For instance, *ne* is not felicitous in out-of-the-blue contexts as shown in (5) (see also Wu 2006; Li 2006).

[3]I thank an anonymous reviewer for the point and the example.

[4]In abstracting away from notions such as *standard flow* and *expectedness*, I use the notion of *optimality*. Working at this level of generality helps in unifying my account for both declaratives and interrogatives. The notions will be defined in the rest of the paper.

(5) **Truly out-of-the-blue**
[A approaches a stranger on the street.]

A: qingwen, xianzai jidian le ??**ne**?
excuse.me now how.many-o'clock PERF NE

'Excuse me, what time is it?' (Constant 2014: 368, slightly changed)

To get a better sense of the particle, let us first look at the felicitous uses of *ne*. As suggested in the introduction, *ne* can appear in questions when the current questioning act is, to some extent, abnormal. For example, in the **Reaffirming the QUD** scenario below, the *ne* question is used when the speaker wants to step back to double-check if the current Question Under Discussion (QUD) *What do you want to drink?* is indeed answerable, given several unsuccessful attempts to resolve the QUD in the prior conversation (see also Rojas-Esponda 2014).

(6) **Reaffirming the QUD**
A: Would you like some wine? B: No, thanks.
A: Would beer attract you? B: Actually no.

A: ni xiang he shenme **ne**?
you want drink what NE

'What do you want to drink?'

In the **Elaborative questions** scenario, the *ne*-question is 'unexpected': when an interlocutor asks a question, an expected move should be to answer the question. However, the speaker in (7) raises the question '*What do you want to order*' without answering the addressee's question first. *ne* is used to mark this abnormality. It signals that the speaker is aware of the fact that the move she is making is not in the normal course of a conversation, and therefore the addressee can infer the reason of this deviation: the speaker is reluctant to give an answer to the addressee's question unless she gets an answer from the current question (i.e. the answer of the previous question depends on the current one), or the speaker does not believe there is anything good to order from Ubereats (for more on elaborative questions see Bledin and Rawlins 2019).

(7) **Elaborative questions**
A: Can we order Ubereats today?

B: ni xiang dian shenme **ne**?
you wang order what NE

'What do you want to order?'

Conjectural questions are questions that do not request an answer, or to which the speaker does not even expect an answer. They have been discussed in connection with German particle *wohl* (Eckardt 2018 a.o.), and with the behaviors of inferential evidentials in questions (Bhadra 2020 a.o.). *ne* is also attested in conjectural questions, as shown in (8), where speaker A knows very well that the speaker B is not capable to answer the question before she makes the move.

(8) **Conjectural questions**
[A and B have been discussing a math problem for a while, but neither of them knows how to solve it.]

A: zhe ti daodi zenme zuo ne?
this question at.all how do NE

'How on earth can we do this **ne**?'

Finally, *ne* often occurs in what I call **Challenging uses** scenarios. For example in (9), the *ne*-question is used to challenge, or indirectly reject speaker A's offer.

(9) **Challenging uses**
A: Ask me anything about the homework!

B: wo weishenme yinggai wen ni **ne**? ni dou mei qushangke!
I why should ask you NE you even NEG go.to.class

'Why should I ask you? You didn't even go to the lecture!'

To sum up, from the four cases presented above we have seen that *ne* overall marks that the current questioning act is not indicated as a preferred action: it can be used to double-check if the QUD is answerable; to raise a new issue without addressing the previous one first; to ask a question which the addressee does not seem to be competent to answer; and to resist to carry out the addressee's instructions. Thus, we would predict that *ne* should be infelicitous when the questioning act is actually desired. This is borne out, as we can see in the **Oral exam** scenario. As shown in (10), speaker B accepts A's request first and then asks a relevant question which should be expected by speaker A. Using *ne* in speaker B's question results in infelicity.

(10) **Oral exam**
A: I am ready. Ask me anything.

B: hao, lambda shi shenme yisi #**ne**?
okay lambda be what meaning NE

'Okay, what does lambda mean?'

3. Proposal

This section characterizes the contribution of *ne* as a discourse particle. Firstly, we assume that interlocutors share a belief in **optimal action choices**, i.e. interlocutors are expected to only make optimal utterances to each other (Lauer 2013; Portner 2004, 2007). Here, optimal actions are assumed to be canonical discourse moves, or utterance choices which obey the general Gricean principles. For example, if the addressee utters an *assertion*, a cooperative speaker who takes the content of the assertion to be true will accept it; if the addressee utters a *question*, a cooperative speaker will accept and answer it truthfully due to the Quality maxim in Grice; if

the addressee utters an *imperative*, a cooperative speaker will perform the addressee's preferred action (see Theiler 2021 for a similar treatment of the notion of Proceeding in Discourse).

To model the 'unexpectedness' of *ne*, we need both the notion of QUD and the notion of *decision problems*. The spirit behind doing so is that although *ne* marks that the speaker's move is not in the normal course of action, the *ne*-marked move is still on the track of resolving a mutual conversational goal. We model this intuition using the notion of QUD, which specifies the shared conversational goal which steers the flow of the conversation (Roberts 1996; Farkas and Bruce 2010). Aside from the mutual discourse goal of resolving the current QUD, each interlocutor often has separate *domain goals* (Roberts 2012). We assume that an interlocutor always faces a decision problem of whether to accept the proposal when an assertion is made, or whether to figure out a practical answer/follow the instruction when a question or a command is made (Bledin and Rawlins 2019; Roberts 2018). Canonical moves are desired, but interlocutors can always choose not to obey the general communicative principles for achieving their own domain goals. For example, in the **Arrange a party** scenario below, imagine that John is an alcoholic, then it is perfectly acceptable to use a *ne* question to resist/challenge speaker A's claim. Here the QUD is supposed to be '*whether we have had enough alcohol*', but speaker B redirects the QUD using the *ne*-question due to their own *practical interests* (Stanley 2005), for instance, successfully arranging a party. We thus suggest that *ne* functions as part of the strategies for achieving speaker's domain goals: although *ne*-marked utterances are not optimal for the addressee, they help the speaker decide what to do in the real world.

(11) **Arrange-a-party**
A: I think we have enough alcohol.

B: yaoshi yuehan lai-le **ne**?
if John come-PERF NE

'(What if) John comes?'

Following Gunlogson (2004), Farkas and Bruce (2010) and Davis (2009), we implement our analysis in the following discourse model. We assume that a context c consists of three core components: discourse commitment sets for each participant x, Farkas and Bruce's *table* stack, and a salient *Action Set*.

(12) A context c consists of:
   a. $\mathscr{C}_x^c$ is Gunlogson (2004)'s **Discourse Commitment** sets for each participant x, and thus the context set for each participant x, $cs_x^c = \bigcap \mathscr{C}_x^c$;
   b. $\mathscr{T}_c$ is Farkas and Bruce (2010)'s **Table Stack**, which represents the current issue under discussion, tracking the proposals made by interlocutors;
   c. a salient **Action Set** $\mathscr{A}_x^c = \{a_1, ..., a_n\}$, the set of possible actions for each participant x, representing the current *decision problem* that each participant x faces. (Davis 2011)

To model the decision-making procedure, we adopt a minimal approach, following Portner (2007) and Davis (2011) (for other applications of decision theory, see Van Rooy 2003; Kauf-

mann 2012; Kaufmann and Kaufmann 2012; Bledin and Rawlins 2019 a.o.). We assume Portner (2007)'s metric on the notion of 'rationality': interlocutors mutually agree to deem each other's actions optimal (see Portner 2007: 358). The notion **optimality** is represented by each participant x's *Optimal Set*, which imposes an ordering on the worlds compatible with each interlocutor's public beliefs, as shown in (13). A Portner-style ordering $<_x^c$ is defined in (14), where we substitute Porner's To-Do List with Kratzer's contextual ordering source. Hence, the set of propositions introduced by the ordering source imposes a partial order on the context set (i.e. joint public beliefs) for each participant.

(13) The **Optimal Set** $\mathscr{O}_x^c$ of participant x is defined as:
$\mathscr{O}_x^c = \{w_i \in cs_x^c | \neg\exists w_j \in cs_x^c : w_j <_x^c w_i\}$ (Davis 2011: 94)

(14) **Partial Ordering of Worlds**
For any worlds w_i, $w_j \in cs_x^c$, $w_i <_x^c w_j$ iff for some $p \in$ `ordering-source`(c), $p(w_i) = 1$ and $p(w_j) = 0$, and for all $q \in$ `ordering-source`(c), if $q(w_j) = 1$ then $q(w_i) = 1$.

We are now ready to state the felicity condition for *ne*. Recall that *ne* cannot appear in out-of-the-blue contexts; and *ne* signals that the speaker does not act in line with the **addressee's preferred actions**; *ne*-utterances are relevant.[5] A successful model should be able to capture all of these properties of *ne*.

We propose the condition in (15). Specifically, the condition says that (i) *ne* marks the discourse move the speaker makes as not desired for the addressee; (ii) the Table stack must not be empty, and (iii) a *ne*-utterance is relevant. Here we pursue a weaker version of Relevance, in that if an assertion or a question shifts the probability of at least one of the answers to the QUD (Büring 2003), or they bring new live options to the other speaker's attention (Franke and de Jager 2011), they are also relevant to the QUD. We will see that *ne*'s behavior exactly follows this weaker version of relevance also in assertions in the next section.

(15) **Felicity Condition for sentence-final *ne***:
Sentence-final *ne* can be felicitously used by a speaker s in c only if (i) s_c performs an action a such that the addressee's optimal set $\mathscr{O}_{a_c}^c \nsubseteq a(s_c)$, (ii)$\mathscr{T}_c \neq \langle\rangle$, and the *ne*-utterance is relevant.

[5] *ne*-utterances are not optimal in the sense that they are not expected answers to the QUD/strategies to resolve the QUD, but rather strategies to achieve speaker's domain goals. Bledin and Rawlins (2019) address this tension between QUD and decision problems by positing the notion of *Subservience*:

(1) **Subservience**: If the speakers in c face a decision problem $top(\mathscr{G}_{DP_c})$ that is not yet resolved in c (i.e. DP_c is unresolved) and a speech act is performed that results in a new question Q being pushed onto the goal stack, then this speech act is appropriate only if completely answering Q helps to resolve DP_c. (Bledin and Rawlins 2019: 39)

The notion of *Subservience* gives us a baseline of when to reject a QUD, namely when there is a conflict between speaker's domain goal and the question proposed by the addressee. But it does not seem to capture the nature that in a conversation interlocutors' domain goals are usually somehow connected to the QUD, and that an interlocutor may reject a question even if all discourse participants share similar practical interests. For instance, in the **Arrange a party** scenario, both interlocutors share the goal of arranging a successful party, and the QUD 'is alcohol enough' helps to resolve the goal. However, the speaker can still resist addressee's proposal due to their private knowledge (i.e. the speaker knows that John might come but it is not in addressee's epistemic state).

4. Predictions: *ne* in declaratives

With the felicity condition proposed in (15), we will spell out the predictions the current account make for *ne*-declaratives. To recap, *ne* marks the move itself is non-optimal in questions. For assertions, on the other hand, the condition proposed in (15) predicts that neither the informative content nor the asserting act itself should be preferred by the addressee. This gives as two following predictions.

Prediction 1: *ne* is infelicitous in an expected answer.

Prediction 1 operates on the level of content. This prediction is borne out as shown in the **Whisky at party** scenario, where the two possible answers, beer or whisky, are already given in an alternative question. Therefore, B's answer is expected. We see that *ne* is unacceptable in this scenario.

(16) **Whisky-at-party**
A: What did you drink at the party today? Beer or whisky?

B: wo jintian he-le weishiji **#ne**.
I today drink-PERF whisky NE

'I drank whisky today.'

In contrast, *ne* is acceptable when the speaker believes the information the utterance carries is surprising to the addressee. For example, in the (17) scenario, *ne* is being used because the speaker believes that drinking whisky at breakfast is not normal. Hence, B uses *ne* to suggest that she is aware of the fact that her preference might not be practical for A to prepare. Here, *ne* functions as a marker for bringing new live options to the addressee's attention.

(17) **Whisky-at-breakfast**
[A is preparing for tomorrow's breakfast. B is a guest.]
A: What do you usually drink for breakfast?

B: wo zaocan jingchang yao he weishiji **ne**.
I breakfast often will drink whisky

'I often drink whisky for breakfast.'

Prediction 2: *ne* is infelicitous in accepting moves.

Prediction 2 operates on the level of discourse moves. In other words, in response to assertions, *ne* cannot appear in the canonical responses. That is, *ne*-declaratives cannot be used to accept an assertion (as shown in 18), or to carry out an instruction (as shown in 19). If in (19), instead A challenges B's command with a question such as '*What if it rains?*', *ne* becomes acceptable in the scenario.

(18) **Accepting assertions**
B: There will be water suspension tomorrow.

A: zhidao-le **#ne**.
know-PERF NE

'(Okay, now) I know.'

(19) **Carrying out instructions**
B: Open the window!

A: hao, wo mashang kai **#ne**
okay I soon open NE

'Okay, I will open it soon.'

In contrast, *ne* is acceptable in rejections, refutations, and resistance moves (see also Bledin and Rawlins 2020). For example, a *ne*-assertion can be used to directly reject another interlocutor's proposal as in (20), or to indirectly reject the proposal by providing a piece of additional evidence against the proposal as in (21).

(20) **Refutation**
A: I know Bill's apartment is pretty small.

B: meiyou, ta jia ke da **ne**
no he home very big NE

'No, his home is quite big.'

(21) **Resistance move**
A: Becky is coming to the party.

B: keshi wo tingshuo yuehan yao lai **ne**
but I hear John will come NE

'But I heard John will come.'

5. A note on the CT account of *ne*

We have argued that discourse marker *ne* signals a non-optimal discourse move. In this section, we discuss some previous accounts on *ne*. Previous literature have suggested that *ne* can be used to *respond to expectations* (Li and Thompson 1989), *look back for contrast* (Chu 2009), or *mark a question* (Cheng 1997). More recently, Constant (2014) gives a very comprehensive introduction to *ne*, and makes the claim that *ne* always marks the existence of a Contrastive Topic (CT) in discourse[6], as shown in (22). More specifically, for sentence-final cases, the claim is that for declaratives, *ne* can only appear in partial answers, or sentences that carry an uncertainty/incompleteness flavor; for interrogatives, *ne* marks a sub-question or a follow-up

[6]Constant (2014) also mentioned about the durative use of *ne*, and he treats it as a different type. Following his insights, in this paper we only consider the cases where *ne* is supposed to appear as a CT marker.

question. Although Constant's account correctly captures the intuition that *ne* can change the current goal of discourse, we suggest that at least sentence-final *ne* is more than that: we have seen above that *ne* can appear in a direct answer to a question as in (17), or in a higher-level QUD as in (6). In the following discussion, we will provide novel data and challenge the view that *ne* is a genuine CT marker.

(22) (Well in that case, there are only two roads to take.)

Yi tiao **ne**, shi cou qian mai-shang che, yi tiao **ne**, shi zanqie lin che
one CL CT be gather money buy-RES cart, one CL CT, be for.now rent cart
la-zhe.
pull-DUR

'One road, is to save up the money to buy a rickshaw. The other road, is to rent a rickshaw to pull for the time being.'

(Constant 2014: 309)

5.1. Does *ne* resist non-contrasting topics/maximal elements?

Constant (2014) §6.3.4 argues that *ne*-marked topics are necessarily interpreted contrastively. However, *ne* is widely accepted by native speakers as a pure aboutness topic marker, as shown in (23).

(23) A: What fruit does Sue like?

B: shuiguo **ne**, su xihuan boluo.
fruit NE Sue like pineapple

'(As for) fruits, Sue likes pineapples.'

A similar "aboutness" topic interpretation is also received in (24), where the topicalized phrase is actually a maximal element *suoyoudeshiqing* "all of these things". Here, the particle *ne* makes the topic anaphoric to the previous discourse.

(24) A: Today all the kids in the first group should perform.

B: danshi yizu suoyou-de xiaopengyou **ne** dou shengbing mei lai.
but group.one all-POSS kid NE DOU sick NEG come

'But all of the kids in the group are absent because they are sick.'

Moreover, *ne* is perfect when it marks *meigeren* 'everyone'.

(25) A: What fruit will the kids get for lunch today?

B: meigeren **ne** dou hui dedao yige pingguo.
everyone NE DOU will get one apple

'Everyone will get an apple.'

To sum up, the above three example suggest that *ne* does not necessarily mark a topic as contrastive; it can function as an aboutness topic marker without any contrastive meaning. When *ne* attaches to maximal elements, it is automatically interpreted as an aboutness topic.

5.2. Is *ne* always compatible with partial answers?

Constant (2014) argues that sentence-final *ne* in declaratives can mark a lone CT or a sentential CT by giving the example shown in (26), where *ne* marks its prejacent as a *partial answer* to the question.

(26) A: Is Zhangsan going to the conference?

B: ta gen wo shuo yao qu **ne**... (danshi ta hai mei mai jipiao.)
he with me say will go NE but he still have.not buy plane-ticket

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

However, the uses of *ne* in partial answers are actually very restricted. For instance, in (27), if we change the piece of evidence that speaker B uses (i.e. from hearsay evidence to another indirect type), *ne* is no longer felicitous in a partial answer.

(27) A: Is Zhangsan going to study in the UK?

B: ta ban-le qianzheng #**ne**...
he do-PERF visa NE

'He applied for visa...'

In (28) I provide another piece of evidence supporting the claim that *ne* is not compatible with partial answers in general. (28) is a standard scenario for CT contour in English, but it turns out to be a terrible context for Mandarin *ne* to exist.

(28) A: Is his car some crazy color?

B: ta-de che shi juhongse-de #**ne**...
he-POSS car be orange-POSS NE

'His car is [**orange**]$_{CT}$.....(but I don't know if it's crazy.)'

In another example Constant gives for the lone CT use of *ne*, shown in (29), *ne* is felicitous. But in (29) the phrase *santouniu* 'three cows' must be stressed, which again casts doubt on whether the lone CT meaning is brought by *ne* or by prosody.

(29) A: His family is poor, so you'd do better not to interact with him.

B: ta jia you [san tou niu]$_{CT}$ **ne**
his family have three CL cow NE

'His family has three cows...(!)'
(Isn't that proof that they're not poor?) (Constant 2014: 67)

ne is also not felicitous in typical sentential CT scenarios, as shown in (30). Note that in A's reply in (30), *ne* cannot appear to mark the antecedent as a topic, but it can appear at the end of a question.

(30) A: Will we have picnic tomorrow?

B: mingtian yao xiayu **#ne**
tomorrow will rain NE

B: it will rain tomorrow...

5.3. The standard CT+F construction

Lastly, when it comes to the CT+F type of examples, *ne* can never appear to mark the CT. But if we manipulate the intonation of *Fred* in (31) (i.e. stressing *Fred*), then the whole sentence becomes acceptable without *ne*.

(31) A: What about Bill? What did he eat?

B: #en... Fred **ne** chi-le douzi.
well Fred NE eat-PERF beans

'Well...[Fred]$_{CT}$ ate [beans]$_{F}$'

To sum up, I have shown that *ne*-marked topics do not always receive a contrastive interpretation, *ne* is not acceptable in many partial answers, and *ne* is infelicitous in the typical Büring-style CT constructions. Based on the empirical evidence, I suggest we take one step back and carefully examine the functions of *ne* in various contexts first. No matter what *ne* actually is, it seems to be more than just a pure CT marker.

6. Conclusion

This paper developed a unified analysis for the uses of the sentence-final *ne* in declaratives and interrogatives. I have showed that *ne* signals unexpectedness both in the content and in the discourse move itself. I propose that by using *ne*, the speaker acknowledges current utterance as not optimal for the addressee. I suggest that the 'unexpectedness' expressed by *ne* is related to the domain goals of the speaker, which signals the tension between interlocutors' practical interests and the conversational goal shared by all interlocutors (the QUD).

For future research, since *ne* may co-occur with other discourse particles in Mandarin (e.g the question marker *ma*), it would be interesting to explore the interactions between them. Moreover, more needs to be done on the comparison between *ne* and other non-canonical question particles such as *ba* (see more in Yuan 2020; Yang 2020).

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