

A QUD Account For The Mandarin Discourse Marker '*zaishuo*'

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Abstract The Mandarin discourse marker *zaishuo* is often considered to connect two utterances that may not have obvious logic connection and help the listener to identify the relevance between these two utterances and the topic (Zheng 2001, Zhou 2005, Lou & Leng 2016). I argue that *zaishuo* must connect two reasons that can provide an answer to a *why*-question, which the QUD (Question Under Discussion, Roberts 2012) or a question that is relevant to the QUD. In addition, the use of *zaishuo* indicates a potential disagreement between the discourse participants. The current analysis has the advantage of being more precise, which can distinguish the use of *zaishuo* from other regular conjunctions such as *erqie* 'and'.

Key words: discourse marker, the Question Under Discussion, *why*-question, potential disagreement

1 Introduction

This paper investigates the Mandarin discourse marker, *zaishuo*. As a discourse marker, *zais-huo* can connect two sentences and does not influence the truth value of the discourse, which is illustrated as below:

- (1) Context: A is persuading B to participate in the speech competition.
Ni qu canjia ba, zhe shi ge hao jihui, ZAISHUO ni zheme youxiu, yiding neng ying .
You go join BA this is GE good chance ZAISHUO you so excellent must can win .
'Just join it. This is a good opportunity for you, ZAISHUO you are so excellent, you definitely will win it.'

The example in (1) illustrates that there are two reasons to participate in this competition, one is that this is a good chance, then B is an excellent student and can win it. These two reasons are connected by *zaishuo*. In this example, *zaishuo* does not influence the truth conditions. Just as (2) shows that when we delete *zaishuo*, the meaning of this utterance is still the same, which indicates two reasons for persuading B in joining the speech competition.

- (2) Ni qu canjia ba, zhe shi ge hao jihui, ni zheme youxiu, yiding neng ying .
You go join BA this is GE good chance you so excellent must can win .
'Just join it. This is a good opportunity for you, you are so excellent, you definitely will win it.'

The two sentences in (1)-(2) have the same truth conditions--they are both true iff this is a good opportunity and you are excellent. The marker *zaishuo* here is just used for connecting the discourse and making the utterance more coherent, according to the previous literature (cite).

As a connecting word, *zaishuo* behaves similar to the conjunction words such as *erqie* 'and'. However, they have different uses. *Zaishuo* and *erqie* both can be used to connect sentences, which always make second language learners confused. As is shown in the (3a), which comes from a foreign student's writing, the student wants to describe that this lady has been very sick, and she is miserable, and he uses *zaishuo* to connect the two statements about this lady, which makes the utterances infelicitous. He is supposed to use *erqie* here, as is shown in (3b).

- (3) Context: this sentence comes from a foreign student's writing in the HSK exam.
a. #Zhewei taitai de-le feichang yanzhong de bing, ZAISHUO ta shifen tongku.
This madam get-PERF very serious DE sickness ZAISHUO she very miserable
'This madam has got very serious sickness, ZAISHUO she is very miserable.'

- b. Zhewei taitai de-le feichang yanzhong de bing, ERQIE ta shifen tongku.
 This madam get-PERF very serious DE sickness ERQIE she very miserable
 ‘This madam has got very serious sickness, ERQIE she is very miserable.’

With regards to its syntactic distribution, *zaishuo* should connect two clauses. This is different from *erqie*, which can also connect two bare predicates. From (4a), *zaishuo* connect a clause and an adjective, which makes the utterance infelicitous. While in (4b), *zaishuo* is used to connect two clauses, which means today is a sunny day and (today) is also very cool, it’s more felicitous. However, different from with *zaishuo*, *erqie* can be used to connect either clause or bare predicate, which is shown in (4c).

- (4) Context: A is persuading B to go outside together.
 a. #Jintian shi qingtian, ZAISHUO liangkuai, women chuqu wan ba.
 Today is sunny day, ZAISHUO cool we go out play BA
 ‘Today is a sunny day, ZASHUO is cool, let’s play outdoors.’
 b. Jintian shi qingtian, ZAISHUO ye hen liangkuai, women chuqu wan ba.
 Today is sunny day ZAISHUO also very cool we go out play BA
 ‘Today is a sunny day, ZAISHUO is also cool, let’s play outdoors.’
 c. Jintian shi qingtian, ERQIE liangkuai, women chuqu wan ba.
 Today is sunny day ERQIE cool we go out play BA
 ‘Today is a sunny day, ERQIE is cool, let’s play outdoors.’

However, in the previous research, the distinctions between those two sentential connectives are rarely discussed. In previous studies, the discourse marker *zaishuo* in Chinese is often considered to link two utterances that may not have obvious logic connections and help the listener to identify the relevance between these two utterances and the topic (Zheng 2001, Zhou 2005, Lou & Leng 2016). As (5) shows, S₁ and S₂ do not relate to each other logically, but when linked by *zaishuo*, the hearer can easily figure out their relations, namely they are both reasons why Mike did not put the money into the bank.

- (5) Anna: Weishenme bu ba qian fang yinhang?
 Why NEG handle money put bank?
 ‘Why didn’t put your money into the bank?’
 Mike: [S₁ Yinhang taiyuan le], ZAISHUO (S₂ wo bu hui tian biao).
 Bank too far PERF ZAISHUO I NEG can fill form
 ‘The bank is far away, ZAISHUO I can not fill the form.’

Besides, those previous accounts can not explain why the use of *zaishuo* is infelicitous in (6). In this example, the S₁ and S₂ connected by *zaishuo* are answering the question raised by Anna, thus they are both relevant to the topic that how do you think of her, but the answer sounds infelicitous here.

- (6) Anna: ni juede ta zenmeyang?
 You think she how
 ‘What do you think of her?’
 Mike: #(S₁ wo juede ta hen reqing), ZAISHUO (S₂ ta hen dafang).
 I think she very enthusiastic ZAISHUO she very generous
 ‘I think she is very enthusiastic, ZAISHUO she is very generous.’

Since the previous research can not provide a precise explanation about the differences between *zaishuo* and *erqie*, the second language learners are always confused with these two words and make some mistakes, such as (3). This paper aims to spell out explicitly the function of the Mandarin discourse marker ‘*zaishuo*’. Based on the QUD theory, we propose that (i) *zaishuo* is supposed to connect two complete clauses or phrases, not just bare predicates. (ii) *zaishuo* should be used to connect the answers to a *why*-question, which is either the QUD or the sub-question that is relevant to the QUD. (iii) The utterances connected by *zaishuo* are supposed to resolve the potential disagreement proposed by another speaker.

The paper is structured as follows. Section 2 uses some specific examples to analyse the function of *zaishuo* and its influence in the exact utterances. Section 3 reviews the basics of the QUD theory. Section 4 presents an analysis of *zaishuo* based on the QUD theory. Section 5 concludes the paper with some open issues for future research.

2 The generations of *zaishuo*

This section illustrates the use of *zaishuo* based on some specific examples. We will use the QUD (Question Under Discussion) theory to account for the use of *zaishuo*. Literally, the QUD is an abstract way of representing the topic that the conversation is focusing on, which always changes dynamically with the ongoing discourse interaction, such as (7) shows:

- (7) A: Why do you like swimming?
B: Because it is interesting.

In (7), the QUD is that “ why do you like swimming”, and B’s utterance answered this question, which means that the QUD has already be resolved by B’s answer.

Based on the QUD theory,the generalization is that, *zaishuo* can conjoin two sentences that answer or partially answer a *why*-question or sub-question. Besides, the *why*-question needs to be the QUD or the sub-question of QUD. For (8a), the QUD is ‘why should we buy this piece of clothes?’, and the speaker lists his reason for buying it , which is (i) this piece of clothes is beautiful, (ii) it is not expensive. Compared with *erqie*, which can either connect description for a *how*-question or give an account for *why*-question, *zaishuo* could only be used to connect reasons. As is shown in (9a), the QUD is ‘how does this piece of clothes look like?’ , and the speaker answers that (i) this piece of clothes is beautiful, (ii) this piece of clothes is not expensive. The (9a) is infelicitous as it does not answer a *why*-question although it is relevant to the QUD. While in (9b), it indicated Anna’s opinion towards this piece of clothes, and made some description that (i) it’s beautiful, (ii) it’s not expensive, which is connected by *erqie*.

- (8) Context: Mike and Anna are shopping in a clothes store, Anna takes a fancy to a piece of clothes, and try to persuade Mike to buy it.

Zhe jian yifu hen piaoliang , *zaishuo* ye bu gui , women mai ta ba .
This piece clothes very beautiful ZAISHUO also NEG expensive we buy it BA
‘ This piece of clothes is very beautiful , ZAISHUO it is not expensive , let’s buy it .’

- (9) Context: Mike and Anna is shopping in a clothes store, Anna takes a fancy to a piece of clothes, and talks with Mike how she thinks of this piece of clothes

a. # **zhe jian yifu hen piaoliang, ZAISHUO ye bu gui.**

This piece clothes very beautiful ZAISHUO also NEG expensive

‘This piece of clothes is very beautiful , ZAISHUO it is not expensive .’

b. zhe jian yifu hen piaoliang , ERQIE ye bu gui .

This piece clothes very beautiful ERQIE also NEG expensive

‘This piece of clothes is very beautiful ,ERQIE it is not expensive .’

In addition, the utterance connected by *zaishuo* is supposed to explain a potential disagreement between the discourse participants . For (10), Mike proposed his reason for why he do not want to eat barbecue with Anna, one is that he just comes back, another is that he thinks barbecue is not healthy. In this example, when hearing Mike’s first reason, Anna may disagree with him that he is free now or he can have a rest rather than go out to have barbecue. To resolve those potential disagreement, he gave another reason that barbecue is not healthy which is connected by *zaishuo*.

- (10) Context: Mike just came back from another city, Anna invites him to eat barbecue outside.

Anna: Ni xiang he wo qu chi shaokao ma?

You want with I go eat barbecue MA

‘Do you want to eat barbecue with me tonight?’

Mike: Wo cai gang daojia, ZAISHUO laji shiping bu jiankang, wo bu qu.

I just just now arrive home ZAISHUO junk food NEG healthy I NEG go

‘ I just came back, ZAISHUO junk food is not healthy. I don’t wanna to go.’

Many foreign students cannot distinguish between the uses of *zaishuo* and *erqie*. In the following, I will analyze some errors they made when using these two discourse markers.

The most common mistake they will make is using *zaishuo* to connect some description that answers a *how*-question, which is supposed to use *erqie*. In the (11a), the QUD is that ‘how is your father like’, he writes that he is eligible and students all like him, which are connected by *zaishuo*. The utterance doesn’t answer a *why*-question, which makes it sound infelicitous. However, we can use *erqie* here, which can connect some descriptions, like (11b). Besides, we can also enrich the context, and change the QUD to a *why*-question, which

also makes the utterance felicitous. As is shown in (11c), the QUD is ‘why he is suitable to become the headteacher’, compared to the (11a), it is more felicitous.

- (11) Context: this is the writing from HSK exam by a American student, the theme is to introduce your father.
- a. # **Ta hen you nengli, ZAISHUO xueshengmen dou hen xihuan ta.**
 He very have ability ZAISHUO students all very like him
 ‘He is an eligible person, ZAISHUO students all like him.’
- b. Ta hen you nengli, ERQIE xueshengmen dou hen xihuan ta.
 He very have ability ERQIE students all very like him
 ‘He is an eligible person, ERQIE students all like him.’
- c. Rang ta zuo banzhuren ba, ta hen you nengli, ZAISHUO xueshengmen dou hen xihuan ta.
 Let he do headteacher BA he very have ability ZAISHUO students all very like him
 ‘Let him become the headteacher, he is eligible, ZAISHUO all the students like him.’

In addition, the (12a) shows that *zaishuo* can not answer a *what*-question. In this example, the QUD is “what do you like to do on weekends?”. Anna answers that she likes go shopping, and she usually goes shopping with her friends, which are infelicitous if *zaishuo* is used for the connection. However, we can use *erqie* to connect this sentence, as is shown in (12b):

- (12a) Mike: ni zhoumo xihuan zuo shenme?
 You weekends like do what
 ‘what do you like to do on weekends?’
 Anna: # **wo xihuan gouwu, ZAISHUO wo jingchang he wo de pengyou yiqi qu.**
 I like shopping ZAISHUO I usually with I DE friends together go
 ‘I like to go shopping ZAISHUO I usually go shopping with my friends.’
- (12b) Mike: ni zhoumo xihuan zuo shenme?
 You weekends like do what
 ‘what do you like to do on weekends?’
 Anna: wo xihuan gouwu, ERQIE jingchang he wo de pengyou yiqi qu.
 I like shopping ERQIE usually with I DE friends together go
 ‘I like to go shopping, ERQIE usually go shopping with my friends.’

Lastly, the second language learners also use *zaishuo* just as a connecting word, ignoring the logic relation between different clauses. It’s also because they do not master the usage and function of *zaishuo*. In (13), the QUD here is ‘why there is a lack of communication between parents and their children.’. Although it is a *why*-question, the utterance connected by *zaishuo* does not answer or literally answer it. However it is the result of the former utterance. Since the former sentence is the reason for the next one, it is more felicitous to use *suoyi* or *yinci*, which means ‘so’ in Mandarin.

- (13) Context: this is the HSK writing named ‘how to resolve the problem of generation gap’
#Tamen yiban huijia hen wan, ZAISHUO mei shijian he haizi tanhua.
 They generally back home very late ZAISHUO NEG time with children talk
 ‘Generally, they come back late, ZAISHUO don’t have time to talk with their children.’

3 Literature review

The Question Under Discussion (QUD) model is designed to express the information structure and imitate the process of the interaction.

Robert(1996/2012) first provides a detailed discussion of the QUD, which assumes that the biggest question we need to settle in communication is what the world is like. However, as it is a big question, we could figure out it by answering many sub-questions that relate to the biggest question. They also distinguished the Open Question (OQ) and Current Question (CQ), the former means unsettled question while later means the question that is most recently proposed. Robert(1996/2012) gives a precise definition of the relevance of the utterances. She thinks that for a series of QUDs, if the next question q' and the last question q satisfied with $q' < q$, which

means that q' is a subset of q , then, the answer to q' needs to be able to partially resolve the question q .

This paper uses the QUD model in Farkas & Bruce (2010). It brings a concept “the Table” on which different issues can be put. Compared to the former one, the process of conversation here is a dynamic update. In their framework, they unified some shared discourse effects of assertions and polar questions, namely that they both raise an issue.

. And this model is also the base of our research. We will have a detailed introduction below.

They argue that there are similarities and differences between the assertion and the polar question. To illustrate this, they use the Table to contain the issue that the interlocutors propose. When the speaker raises an issue, it will be put on the topmost of the Table stack. It can be defined as (14).

(14) S is an issue here

A	Table	B
	S	
Common ground:		Project set :

Then, we could use a pair to describe the assertion and polar question. One of the similarities they think that the assertion and polar question share is that they both are placed on the Table stack, but there are different ways to describe them. For assertion, it can be illustrated as a singleton set of propositions, while the polar question is not. For example, the denotation of the assertion “Sam is home” can be “< ‘Sam is home’ [D]; {p}>” (15), and the denotation of the polar question “Is Sam home?” can be “< ‘Is Sam home?’ [I]; {p, ¬p}>” (16), in which p is the denotation of the positive answer that Sam is home, while $\neg p$ is the negative one.

(15) “Sam is home.”

A	Table	B
p	< ‘Sam is home’ [D]; {p} >	
Common ground:		Project set :

(16) “Is Sam home?”

A	Table	B
	< ‘Is Sam home?’ [I]; {p, ¬p} >	
Common ground:		Project set :

When a proposition is proposed but not accepted yet, it can be stored in the Discourse Commitments (DC) of the participant. It can be defined as (17).

(17)

A	Table	B
DC _A	S	DC _B
Common ground:		Project set :

In this model, the intended effect of the input is to empty the table and make it stable. There are two ways to realize it. One is to update the Common Ground, another is to remove the issues from the Table. When interlocutors come to an agreement, the CG will be updated and the Table will be stable. Otherwise, the interlocutors need to agree to disagree to remove the issue from the Table or by revising the proposition to reach an agreement. Also, the other participant can just make a default on the issue. When the issue is the assertion, the default will be inclined as agreement, while it is a question, the default action will make the conversation reach an unstable status. To see the differences of the result between assertion and polar question, we have Project Set (PS) here, which is used to illustrate the possible Common Ground with the move of the conversation. Such as (18) (19).

(18) come to agreement with p

A	Table	B
	<'S'[I]; {p}>	
Common CG ₀ =CG _i ∪{p}	ground:	Project set :PS ₀ = PS _i ∪ {p}

(19) come to disagreement with p

A	Table	B
p	<'S'[I]; {p}>	¬p
Common ground:		Project set :PS ₀ = ∅

In total, the process of raising an issue and finally resolving it can be illustrated in these ways. At first, participant A raised the issue, and put it into the top of the Table, as in (20). Then, participant B will respond to the issue, and the response can be agreeing, disagreeing or default. When they come to agreement, the issue is resolved by updating the Common Ground and the table reaches a stable state, as in (21)-(22). If they disagree with each other, they need to revise the issue and until reach agreement or just agree to disagree and remove the issue from the table, as in (23)-(25).

(20) A: Sam is home.

B: Yes.

A	Table	B
p	<'Sam is home'[I]; {p}>	
Common ground: CG ₀		Project set : PS ₀ = CG ₀ ∪p

(21)

A	Table	B
p	<'Sam is home'[I]; {p}>	p
Common ground: CG ₁ =CG ₀		Project set : PS ₁ =PS ₀

(22)

A	Table	B
Common ground:CG ₂ =CG ₁ ∪{p}		Project set :PS ₂ = PS ₁ ∪ {p}

(23) A: Sam is home.

B: No, he is not home.

A	Table	B
p	<'Sam is home'[I]; {p}>	
Common ground: CG ₀		Project set : PS ₀ = CG ₀ ∪p

(24) A and b disagree with each other

A	Table	B
p	<'Sam is home'[I]; {p}>	¬p
Common ground: CG ₁ =CG ₀		Project set : PS ₁ =∅

(25) Agree to disagree and remove the issue from table

A	Table	B
Common ground:	Project set :	

Overall, the assertion and polar question share some similarities, they both put an issue on the table and update the project set, and both can use pair sets to describe them. As for answers, they both can use confirmation ,deny and default to reply. The difference between them is that the assertion is a singleton set while the question is not.

In summary, Farkas & Bruce (2010) provide a useful model to illustrate the utterance. They unify the assertion and question by proposing that they both add an issue on the table and update the project set. It provides us a new way to analyse the discourse.

4 QUD account for the discourse marker *zaishuo*

With all the theories we already introduced in last section, now we could use the QUD model to analyse the function of *zaishuo*. I propose that *zaishuo* is supposed to connect two reasons which should answer a *why*-question that resolve a potential disagreement between the participants:(26) The condition of using *zaishuo*: $p \text{ ZAISHUO } q$ is defined iff there is a *why*-question Q on the current table and $p, q \in Q$.

Let’s see how to derive (5), an example of a felicitous use of *zaishuo* in the QUD model.

- (5) Anna: Weishenme bu ba qian fang yinhang ?
 Why NEG handle money put bank ?
 ‘ Why didn’t put your money into the bank ? ’
 Mike: Yinhang taiyuan le, ZAISHUO wo bu hui tian biao.
 Bank too far PERF ZAISHUO I NEG can fill form
 ‘ The bank is far away , ZAISHUO I can not fill the form. ’

The initial state of the model is shown in (27).

(27) The initial stack

DC _M	Table	DC _A
Common ground: CG ₀	Project set : PS ₀ ={CG ₀ }	

After Anna asked ‘Weishenme bu ba qian fang yinhang?’ (‘Why didn’t put your money into the bank?’), a question is put onto the table. For this issue, there are several reasons for resolving this issue as well as updating the common ground. And by this time, the model will become (28). Here, $\{R_1, R_2, R_3 \dots R_n\}$ is a set of all the possible answers to the question raised by Anna, which is equivalent to $\{R | \text{I didn’t put your money into the bank because } R\}$.

(28) After the question of ‘Weishenme bu ba qian fang yinhang?’

DC _M	Table	DC _A
	< ‘weishenme bu ba qian fang yinhang; $\{R_1, R_2, R_3 \dots R_n\}$ ’	
Common ground: CG ₀	Project set: PS ₁ ={PS ₀ ∪ {R ₁ }, PS ₀ ∪ {R ₂ }, ... ,PS ₀ ∪ {R _n }}	

Mike’s answer resolved the QUD raised by Anna, he listed two reasons R1 and R2 which means that the bank is far away and I can not fill the form. The reasons are connected by *zaishuo*. As is shown in (29), assuming that Anna does not express any disagreement, the default update is that they both have $\{R_1, R_2\}$ in their commitment sets and the common ground has been updated.

(29) After Mike’s answer

DC _M	Table	DC _A
Common ground: $CG_1 = CG_0 \cup \{R_1, R_2\}$		Project set :

Besides, *zaishuo* can answer some potential questions which are relevant to the QUD. Let’s take (10) as an example.

- (10) Anna: Ni xiang he wo qu chi shaokao ma?
 You want with I go eat barbecue MA
 ‘Do you want to eat barbecue with me tonight?’
 Mike: Wo cai gang daojia, ZAISHUO laji shiping bu jiankang, wo bu qu.
 I just just now arrive home ZAISHUO junk food NEG healthy I NEG go
 ‘I just came back, ZAISHUO junk food is not healthy. I don’t want to go.’

Before the conversation begins, the state of the stack is shown as below.

(30) The initial stack

DC _M	Table	DC _A
Common ground: CG_0		Project set : $PS_0 = \{CG_0\}$

Anna asked ‘Ni xiang he wo qu chi shaokao ma?’ (do you want to eat barbecue with me?), which puts a question ‘shall we eat barbecue together onto the table’. For this issue, there are positive as well as negative answers to answer this question. Also either of these two answers would help to update the Common Ground, and could be put into the Project Set. And in this time, the model will become (31). Here, *p* represent the proposal raised by Anna that {*w*| you want to eat barbecue with me in *w*}, while $\neg p$ means opposite.

(31) After the state of ‘ni xiang he wo qu chi shaokao ma?’.

DC _M	Table	DC _A
	<‘ni xiang he wo qu chi shaokao ’ [I]; { <i>p</i> , $\neg p$ }>	
Common ground: $CG_1 = CG_0$		Project set : $PS_1 = \{PS_0 \cup \{p\}, PS_0 \cup \{\neg p\}\}$

After Mike heard Anna’s utterance, he would reply to her inquiry. And here, he gives a negative answer and lists his reasons for why he rejects Anna’s proposal: (i) he just comes back (ii) barbecue is unhealthy, which are connected by *zaishuo*, in case that Anna would propose some potential disagreement. Onea (2016) raised and analyzed the theory of potential questions, he proposed that in the interaction, the interlocutors not only address questions, but also have the tendency to raise some questions, which would become the QUD in the subsequent utterance. Such a question is a potential question.

After updating the commitment with negative response, the CG would still remain the same with the initial one, and the PS would update with $(PS_0 \cup \{\neg p, R_1, R_2\})$.

(32) Mike’s reply

DC _M	Table	DC _A
$\neg p, R_1, R_2$	< ‘ni xiang he wo qu chi shaokao ’ [I]; { <i>p</i> , $\neg p$ }>	
	<‘weishenme buqu chi shaokao’ ; { <i>R</i> ₁ , <i>R</i> ₂ , <i>R</i> ₃ ... <i>R</i> _{<i>n</i>} }>	
Common ground: $CG_2 = CG_0$		Project set : $PS_1 = (PS_0 \cup \{\neg p, R_1, R_2\})$

From the stack, we also could see that the QUD ‘ni xiang he wo qu chi shaokao ma?’ (Do you want to eat barbecue with me?) raised by Anna can be resolved by ‘wo bu qu’ (I don’t want to go). The utterances

connected by *zaishuo* actually answered a potential disagreement that was relevant to the QUD. After hearing Mike’s negative answer, Anna may continue to persuade him to change his mind, so Mike proposed some reasons which answered why he doesn’t want to eat barbecue in advance, and they are connected by *zaishuo*. For some other questions such as *how*-questions or *why*-questions that can not use *zaishuo*, we will also use the QUD stack to make an analysis. Let’s take (12a) as an example.

- (12a) Mike: ni zhoumo xihuan zuo shenme?
 You weekends like do what
 ‘what do you like to do on weekends?’
 Anna: # wo xihuan gouwu, ZAISHUO wo jingchang he wo de pengyou yiqi qu.
 I like shopping ZAISHUO I usually with I DE friends together go
 ‘I like to go shopping ZAISHUO I usually go shopping with my friends.’

In (12a), the QUD is a *what*-question, which is “ni zhoumo xihuan zuo shenme?” (what do you like to do on weekends?). After Mike raises this question, the QUD is pushed into the table. Here, {T1, T2, T3, ...} is a set of all possible answers to the *what*-question, as is shown in (34).

- (33) The initial state

DC _M	Table	DC _A
Common ground: CG ₀		Project set : PS ₀ ={CG ₀ }

- (34) After Mike’s inquiry

DC _M	Table	DC _A
	< ‘ni zhoumo xihuan zuo shenme?’; {T ₁ ,T ₂ ,T ₃ ...T _n }>	
Common ground: CG ₀		Project set : PS ₁ ={PS ₀ ∪ T ₁ , PS ₀ ∪ T ₂ , PS ₀ ∪ T _n }

Then, Anna answered this question, which is that she likes to go shopping, and she usually goes shopping with her friends. And they are connected by *zaishuo*. Since Anna’s statements resolved the QUD, the table becomes empty and the CG is updated. However, this QUD does not push the set of reasons to the table, it pushes a set of things. Hence, it is infelicitous to use *zaishuo* here.

5 Conclusions

In this paper, I analyse the function and usage of the Mandarin discourse marker *zaishuo*, it can be used to answer a *why*-question or give reason for any potential disagreement of the interlocutor. I propose that (i) *zaishuo* should be used to connect the answers to a *why*-question, which is either the QUD or the sub-question that is relevant to the QUD. (ii) *zaishuo* should connect the reasons which are supposed to answer for any potential disagreement from other speakers. Besides, we make a simple description about the differences between the discourse marker *zaishuo* and *erqie*, which can also be used to connect reasons and have similar usages.

For future research, we will focus on the relation between the two reasons connected by *zaishuo*, as well as their relation with the QUD. Besides, in this paper, we only analyse the usage of *zaishuo* in the conversations, it could also be used in some writing, and has some special usage that different with spoken language, such as *zaishuo* can be used in the beginning of the sentence in writing but not in spoken language.

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