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# *Jiu*-conditionals in Mandarin Chinese: thoughts on a uniform pragmatic analysis of Mandarin conditional constructions

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**Abstract:** Conditionals in Mandarin can be expressed by conjunctive sentences with no overt conditional connective (Type 1:  $P, Q$ ) or with a conditional connective (CC) in the antecedent (Type 2: CC  $P, Q$ ) and/or a conditional particle (CP) in the consequent (Type 3: (CC)  $P, CP Q$ ). In this paper, we focus on *jiu*-conditionals (Type 3) without CCs. We assume that *jiu* in Mandarin is ambiguous between *jiu*<sub>1</sub> (unstressed, nonexclusive, left associating) and *jiu*<sub>2</sub> (stressed, exclusive, right associating), and that *jiu*-conditionals involve *jiu*<sub>1</sub> without exclusive force. We argue against a conditional conjunction analysis of *jiu*-conditionals and for a scalar analysis of *jiu* in conditionals as well as in temporal or spatial use. Furthermore, we present what we believe is the first uniform pragmatic account of Mandarin conditional constructions across Types 1–3: it is the subjective (non)veridicality property of the first clause  $P$  that determines the reading of the sentence  $P, Q$ . If  $P$  is entailed or presupposed, we get a conjunctive reading; if  $P$  is not entailed or presupposed, that is, if it is nonveridical, we get a conditional reading. Devices triggering the conditional reading include CCs or negative polarity items in the antecedent, as well as the broader discourse context or world knowledge.

**Keywords:** conditional conjunction; conditionals; Mandarin Chinese; (non)veridicality; scalarity

## 1 Introduction

While conditionals are a vital area in linguistics, they are not straightforward to define. For instance, Bhatt and Pancheva (2006: 641) take conditionals “as structures involving an adverbial clause interpreted as stating the conditions under which the proposition expressed by the main clause is true (or its truth is relevant, as in the case of relevance conditionals)”. This covers conditionals formed by the use of a conditional connective (CC) in the antecedent – for example, English *if* and German *wenn/falls* – or related prepositional phrase – for example, English *on condition that*, German *unter der Bedingung, dass*. Although CCs are a common strategy for forming conditionals, they are not obligatory crosslinguistically.

Even if we take the most studied language, English, for example, we have conditional sentences without explicit marking in the antecedent but formed by *and*, called conditional conjunction, as illustrated by the examples in (1).

- (1)  $P$  and  $Q \rightarrow$  if  $P, Q$
- The cops show up, and a fight will break out.*
  - A woman starts smoking, and she wants to stop within a few months.*
  - You drink too much at the party, and you will regret that you did tomorrow.*
- Klinedinst and Rothschild (2012)

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Bhatt and Pancheva (2006) also report data in Bengali (cf. Comrie 1986) and Hindi, where the presence of the conditional particle (CP) ‘then’ is obligatory instead of the presence of the CC, as shown in the Hindi example in (2).<sup>1</sup>

- (2) (**agar**) *mehnat karoge to safal hoge.*  
 if hard.work do.FUT.2PL then successful be.FUT.2PL  
 ‘If you work hard, you’ll be successful.’  
 (McGregor 1995, cited in Bhatt and Pancheva 2006)

In comparison, conditionals in Mandarin Chinese, the object language of this paper, have at least the following properties: Firstly, Mandarin does not use ‘and’ to form conditionals, unlike English. Secondly, CCs such as *ruguo* ‘if’, *yaoshi* ‘if’, and *wanyi* ‘if, in case’ (see Liu and Wang 2021) in the antecedent are optional. Mandarin conditionals can be formed without markers in the antecedent or the consequent, as seen in (3). Thirdly, CPs such as *jiu* (which is often translated as ‘then’, although we will argue against this in the paper) are also optional, as seen in (4). Furthermore, as shown in (5) and (6), the modal adverb *hui* ‘will’ or the additive particle *ye* ‘also’ seem to give rise to conditional meanings as well.

- (3) Mandarin conditionals without markers  
 a. *Ta bu lai, wo bu zou.*  
 he not come I not leave  
 ‘If he does not come, I will not leave.’  
 b. *Ni bu xihuan, wo na huiqu tuidiao.*  
 you not like I take back return  
 ‘If you don’t like it, I will return it.’
- (4) Mandarin conditionals with CCs or *jiu*  
 (**Ruguo**) *Zhangsan he jiu, wo (jiu) ma ta.*  
**if** Zhangsan drink wine I **then** scold him  
 ‘If Zhangsan drinks wine, (then) I will scold him.’  
 (Comrie 1986)
- (5) Mandarin conditionals with modal verbs  
 a. *Ni qu le na ge guniang,*  
 you marry LE that CL girl  
*wo hui an cheng jia de biao zhun gei ni gongqian.*  
 I **will** by have family DE standard give you salary  
 ‘If you’ve married that girl, I will pay you by the standard of having a family.’  
 b. *Tamen xiang jue dou, women bu hui shiruo, yiding fengpei.*  
 they want duel we not **will** show.weakness **must** keep.company  
 ‘If they want a duel, we will not show weakness, we must keep them company.’
- (6) Mandarin conditionals with *ye* ‘also’  
*Yi ge ren hun qian dui ni nayang,*  
 one CL person marriage before to you that.way,  
*hun hou ye hao bu dao na qu.*  
 marriage after **also** good not to where go  
 ‘If someone treats you that way before marriage, (s)he will be no good in marriage anyway.’

<sup>1</sup> Examples are glossed following the Leipzig Glossing Rules. Abbreviations used: 2 second person; CL classifier; DE Mandarin linker *de*; FUT future tense; LE Mandarin aspect marker *le*; PL plural.

Examples (3)–(6) taken together indicate that a Mandarin sentence in the form of *P, Q* is ambiguous between a conjunctive reading and a conditional reading. The question of whether the explicit marking for the latter is always optional is debatable. For example, Comrie (1986) claims that in the absence of any overt conditional marking, a sentence like (4) is ambiguous between a variety of relations holding between the two clauses, such as conditional, temporal, or causal. From here, we will argue that this generalizes over the cases in (3)–(6). In this paper, we will focus on *jiu*-conditionals (*P, jiu Q*) and then present a uniform pragmatic analysis of Mandarin conditional constructions in general. In Section 2, we argue that *jiu* is ambiguous between an unstressed, nonexclusive, left associating element (*jiu*<sub>1</sub>) and a stressed, exclusive, right associating element (*jiu*<sub>2</sub>), and that *jiu*-conditionals involve *jiu*<sub>1</sub>. In Section 3, we review previous accounts in the literature focusing on the conditional conjunction analysis in Liu (2017) and the scalar analysis of *jiu* versus German *schon* ‘already’ (Wimmer 2020). In Section 4, we propose an analysis of *jiu*<sub>1</sub> in terms of scalarity involving temporal, conditional, or spatial alternatives. In Section 5, we present a uniform pragmatic account of Mandarin conditional constructions relying on Giannakidou’s (1998) nonveridicality framework. Section 6 concludes the paper.

## 2 The ambiguity of *jiu*

*Jiu* in Mandarin is ambiguous and shows different distributional properties. While some researchers assume there is a series of various (i.e., polysemous) types of *jiu* (Lü 2013 [1999]: 315), others argue for two basic types (Lu 1984; Xu and Yang 2010). Following the latter view, we assume that *jiu* can have left or right focus associates, with *jiu*<sub>1</sub> being unstressed and *jiu*<sub>2</sub> stressed. Furthermore, *jiu*<sub>1</sub> has a nonexclusive meaning whereas *jiu*<sub>2</sub> has an exclusive meaning, which indicates that we are not dealing with the same particle with different focus (F) associates in (7). Thus, we can infer in (7b) that Zhangsan ate nothing other than a chicken, but we cannot infer that nobody other than Zhangsan ate a chicken in (7a). The examples in (7) also show that *jiu* is different from *then* in English conditionals.

- (7) *Zhangsan jiu chi-le yi-zhi ji.*  
 Zhangsan *jiu*<sub>1</sub>/*jiu*<sub>2</sub> ate-LE one-CL chicken  
 a. [**Zhangsan**]<sub>F</sub> *jiu*<sub>1</sub>: ‘Zhangsan alone ate a chicken.’ (rough translation)  
 b. *jiu*<sub>2</sub> ... [**yi-zhi ji**]<sub>F</sub>: ‘Zhangsan only ate a chicken.’

While *jiu* can be used as a conditional marker, it is ill-formed with a preposed consequent, as seen in (8). This contrasts with the use of English *then* (which can be preposed, though not sentence-initially, e.g., \*Then I will come home, if John leaves; see Bhatt and Pancheva 2006) or German *dann*, in (9).

- (8) a. *Xin cun mengxiang, jiyu jiu hui longzhao ni.*  
 heart keep dream opportunity *jiu* will embrace you  
 ‘If you keep dreams in your heart, opportunities will embrace you.’  
 b. *Jiyu (\*jiu) hui longzhao ni, ruguo xin cun mengxiang.*

- (9) a. English: *If you go, then I will drive. / I will then drive if you go.*  
 b. German:  
*Wenn du gehst, dann werde ich Auto fahren.*  
 if you go then will I car drive  
*Ich werde dann Auto fahren, wenn du gehst.*  
 I will then car drive if you go  
 ‘If you go, then will I drive. / I will then drive, if you go.’

This further shows that *jiu* is different from *then*. We will argue in the following sections that unlike *then*, which has a deictic or anaphoric use, Mandarin *jiu* in conditionals mainly contributes scalarity without exclusive force.

### 3 *Jiu*-conditionals: previous accounts

Mandarin *jiu*-conditionals without CCs have raised the question of how the conditional reading is derived and what contribution *jiu* makes. In this section, we review two recent formal studies.

#### 3.1 Liu (2017): a conditional conjunctive analysis

Liu's (2017) analysis is largely based on Klinedinst and Rothschild's (2012) analysis of conditional conjunction in English (see (1)). Klinedinst and Rothschild propose that the English *and* is lexically ambiguous between a Boolean (truth-functional) interpretation ( $and_b$ ) and a non-Boolean interpretation ( $and_d$ ). An *and*-sentence receives a conjunctive reading in the former case, but when it is "weakened into" the latter, a conditional meaning. This account is conceptually insightful and formally elegant. We do not have space to go into the details in this paper, but would like to share the following concerns.

In general, Klinedinst and Rothschild (2012) relate the use of the first conjunct *P* in a conditional conjunction to a "changing information parameter" only, and thus *P* is not entailed. However, if we attribute the ambiguity of such sentences to the ambiguity of the conjunction only, it is unclear how we should consider the contribution of other co-occurring expressions, for example, the negative polarity item (NPI) *any* in (10). As NPIs are licensed in downward entailing or nonveridical contexts (Giannakidou 1998; Ladusaw 1980), in this case, we can infer the lack of the entailment with regard to the first clause, without relying on  $and_d$ .

(10) *You drink any more tequila, and you'll pass out.* (Culicover and Jackendoff 1997)

Our additional concerns are specific to Mandarin. Firstly, Mandarin does not use overt conjunction in conjunctive sentences. As a response to this, Liu (2017) assumes that "*P, Q*" sentences in Mandarin have the LF (Logical Form) structure " $P\ and_b\ Q$ ", that is, with a covert conjunction where *P* and *Q* are both entailed. He then proposes the following LF structure for *jiu*-conditionals: " $jiu\ (P\ and_d\ Q)$ "; that is, with a covert conditional conjunction  $and_d$ , in the spirit of Klinedinst and Rothschild (2012), where *P* is not entailed. Secondly, he does not analyze *jiu* as a conditional operator but as a "focus-sensitive exclusive" operator ( $only_{weak}$ ) which scopes over its focus-marked (left) associate through covert LF-movement. Thirdly, he claims that "we also take seriously the conventional wisdom that *jiu* is just a conditional marker. In other words, *P, jiu Q* is no different from English conditionals *if P, then Q* – no extra meaning is conveyed by the former" (Liu 2017: 46).

We agree with Liu that *jiu* is not a conditional operator in the sense of the English *if*, as *jiu* differs from *if* syntactically and, as we will see in the rest of the paper, semantically. However, the proposed analysis of *jiu* has at least the following problems. Firstly, conditional conjunctions in English cannot take CCs, see (11), in contrast to *jiu*-conditionals with CCs being optional, see (4).

(11) *If you come close, (\*and) I will shoot you.*

Secondly, *jiu* in conditionals is unstressed and can have the antecedent clause on its left but not on its right, which means that it patterns with  $jiu_1$  (unstressed, nonexclusive) rather than  $jiu_2$  (stressed, exclusive; see (7)). Accordingly, *jiu*-conditionals do not have an exclusive meaning as Liu claims, unlike *cai*-conditionals (i.e., *P, cai Q* = 'Only if *P, Q*'). Lastly, *jiu*-conditionals are different from *if*-conditionals. We will elaborate on this in Sections 3.2 and 4.

#### 3.2 Wimmer (2020): a scalar analysis

Wimmer (2020: Ch. 4) provides a very insightful account of *jiu*-conditionals in terms of scalarity (a presupposition of scalar lowness, more specifically) in comparison to the German particle *schon* 'already'.

- (12) a. *Ni xiao, wo jiu kaixin.*  
 you smile I jiu happy
- b. *Wenn du lächelst, bin ich schon glücklich.*  
 if you smile am I schon happy
- ‘A smile from you is all it takes for me to be happy.’ (rough translation)
- Minimal sufficiency:** It takes as little as your smile to make me happy.
- Inception:** Nothing less than your smile makes me happy.
- Additivity:** Anything more than your smile also makes me happy.
- Wimmer (2020)

As shown by his examples in (12), a *jiu*-conditional and its German counterpart have three inferences. For space reasons, we will not discuss the inception and additivity inferences, but focus on the minimal sufficiency (MS) inference. The MS notion is from Grosz (2012), who makes a distinction for German *nur* ‘only’ in *if*-clauses between a canonical (negative/exclusive) reading *only*<sub>1</sub> and a (positive/nonexclusive) MS reading *only*<sub>2</sub>.

Through this, *jiu*-conditionals convey the antecedent *P* as minimally sufficient for the consequent *Q*, “a condition easy to satisfy” (Wimmer 2020: 63), easy in comparison to other sufficient conditions, that is, the alternatives that are more than the addressee’s smile (not those less than it). In other words, *jiu* presupposes scalar lowness of the conditional antecedent (in Wimmer’s analysis, through an LF-operator LOW), explaining the oddity of example (13).

- (13) #*Ni qu taikong, wo jiu kaixin.*  
 you go outer.space I jiu happy
- #‘You going to outer space is all it takes for me to be happy.’

Furthermore, Wimmer applies the scalar meaning to *jiu* or *schon* in both conditionals and non-conditional temporal uses (e.g., *Jetzt regnet es schon* ‘Now rains it *schon*’). In Section 4, the meaning contribution we propose for *jiu* is in essence similar to Wimmer’s scalar analysis. But the differences are in the details: Among other aspects, Wimmer does not discuss the ambiguity of *jiu* as we laid out in Section 2. He also does not discuss its use with spatial alternatives as we will do in Section 4. Furthermore, our analysis uses an explicitly multidimensional analysis of what he treats as MS.

Before we move on, we will discuss briefly the data from Hole (2004), given in (14), which the author argues shows that *jiu* is obligatory with *zhi-yao* ‘only-need’ and *guang* ‘alone’, both related to scalar lowness.

- (14) a. *Zhiyao xingqitian tianqi hao, wo \*(jiu) qu pa shan.*  
 only.need Sunday weather good I jiu go climb mountain  
 ‘I go mountain-climbing if the weather is good on Sunday.’
- b. *Guang zhe jian shi \*(jiu) shuoming ta hen nenggan.*  
 alone this CL matter jiu demonstrate (s)he very competent  
 ‘This matter alone demonstrates that (s)he is very competent.’
- (Hole 2004: 68, 70)

Using these data, Hole argues that *jiu* should be treated as a semantically vacuous agreement element, that is, with uLOW (an uninterpretable LOW feature) in agreement with the overt instantiations of LOW *zhiyao/guang* with iLOW (an interpretable LOW feature). Following this, Wimmer (2020) assumes that there is a covert LOW operator in the structure even without overt LOW-expressions. However, it is not clear to us whether *jiu* is obligatory in these sentences due to agreement or for independent reasons, as even if we drop *zhiyao/guang*, the sentences are still bad without *jiu*. Furthermore, we can replace *jiu* with other particles such as *ye*, or change the predicate without *jiu*, as shown in (15). We will leave a proper evaluation of the agreement analysis for future investigation.

- (15) a. *Zhiyao ni qu, wo ye qu.*  
 only.need you go I also go  
 ‘As long as you go, I will also go.’

- b. *Zhiyao ni qu, wo mashang zou.*  
 only.need you go I immediately leave  
 ‘As long as you go, I will leave immediately.’

## 4 *Jiu*-conditionals: current proposal

We propose a uniform analysis for *jiu*<sub>1</sub> and *jiu* in conditionals, henceforth, simply *jiu*<sub>1</sub> for both, based on the data in (16).

- (16) a. {*Tamen xianzai / xianzai tamen*} *jiu qu.*  
 they now now they *jiu*<sub>1</sub> go.  
 ‘They will go *jiu*<sub>1</sub>-now.’
- b. {*Ni xuexiaoli / xuexiaoli ni*} *jiu keyi zhu.*  
 you school.in school.in you *jiu*<sub>1</sub> can stay  
 ‘You can stay *jiu*<sub>1</sub>-at campus.’
- c. {*Zhege wenti ruguo you.ren lai /*  
 this.CL problem if someone come  
*ruguo you.ren lai zhege wenti*} *jiu jiejie le.*  
 if someone come this.CL problem *jiu*<sub>1</sub> solve LE  
 ‘If someone comes, this problem *jiu*<sub>1</sub> will be solved.’

Our analysis has the following components. Syntactically, we assume that the antecedent CP (expressing the proposition *P*) in *jiu*-conditionals is base-generated in the consequent TP (*Q*), as is the AdvP or the PP in (16a, b): CP/AdvP/PP, [<sub>TP</sub> *jiu* ...] from [<sub>TP</sub> CP/AdvP/PP-*jiu* ...]. We leave it open as to whether it is the specifier of a functional projection headed by *jiu*<sub>1</sub>, an adjunct to VP, or if it occupies a higher position (see Pan and Paul [2018], among others, on related syntactic issues). Secondly, the CP/AdvP/PP can undergo movement to the left periphery, possibly yielding a (contrastive) topic (see Haiman 1978; Kaufmann and Whitman 2021; Pan and Paul 2018).

Regarding the semantics and pragmatics, we propose that *jiu*<sub>1</sub> triggers a scalar inference (SI), which is computed based on the alternatives of its left associates, similar to Kellert’s (2018) treatment of Italian *già* ‘already’ as a trigger of scalar presuppositions.

- (17) *Zhangsan jiu chi-le yi-zhi ji.* = (7a)<sup>2</sup>  
 ‘Zhangsan *jiu*<sub>1</sub> ate a chicken.’
- a. **Assertion:** Zhangsan ate a chicken.  
 b. **SI:** It is less likely that Zhangsan ate a chicken **alone** than with someone else.
- (18) {*Tamen xianzai / xianzai tamen*} *jiu qu.*  
 ‘They will go *jiu*<sub>1</sub>-now.’
- a. **Assertion:** They are going now.  
 b. **SI:** It is less likely that they are going **now** than at later time points.
- (19) {*Ni xuexiaoli / xuexiaoli ni*} *jiu keyi zhu.*  
 ‘You can stay *jiu*<sub>1</sub>-at campus.’
- a. **Assertion:** You can stay at campus.  
 b. **SI:** It is less likely that you can stay **at campus** than at more distant locations.

<sup>2</sup> A similar, naturally occurring example is given in the Appendix.

- (20) {*Zhege wenti ruguo you-ren lai / ruguo you-ren lai zhege wenti*} *jiu jiejie le*.  
 ‘If someone comes, this problem *jiu*<sub>1</sub> will be solved.’
- Assertion:** If someone comes, this problem will be solved.
  - SI:** It is less likely that the problem gets solved with **someone coming** than with more than one person coming (or other contextual alternatives).

The SI of *jiu*<sub>1</sub> is similar to Wimmer’s (2020) analysis of *jiu* in relation to German *schon*. The scalar analysis can explain why *jiu* is fine in some kinds of conditionals (e.g., predictive, epistemic, subjunctive) but not in others, such as biscuit conditionals (e.g., *There are biscuits on the shelf, if you want some*) or speech act felicity conditionals (e.g., *If I may say so, the wine is delicious*; see a comprehensive list of different kinds of conditionals based on the literature in Hamm and Franke [2010]). In the latter, the antecedent cannot function as the LOW alternative, incompatible with *jiu*, as minimality presupposes relevance, but in biscuit conditionals, the consequent is true independently of the antecedent. However, it remains to be further investigated whether the SI and the MS analysis are the same; one possibility is to use a context involving two equally minimal alternatives and test whether any scalar inference arises (Magdalena Kaufmann, pers. comm.).

A minor aspect where our analysis differs from Wimmer (2020) is that we take into consideration the involvement of spatial alternatives as in (19). A more important difference, however, is that our analysis is multidimensional, as we propose explicitly that in a *jiu*-conditional, the conditional meaning is solely the semantic core whereas the scalar meaning is a non-at-issue meaning. This is shown in (21), for (19), and (22), for (20): in the negated, modalized, hypothesized, or questioned variants of the above sentences, the SI survives or projects (Simons et al. 2010), confirming its non-at-issue nature.

- (21) a. Negation: *Ni bushi xuexiaoli jiu keye zhu*.  
 ‘It is not the case that you can stay *jiu*<sub>1</sub>-at campus.’
- b. Modal: *Keneng ni xuexiaoli jiu keyi zhu*.  
 ‘You can stay *jiu*<sub>1</sub>-at campus.’
- c. Conditional: *Ruguo ni xuexiaoli jiu keyi zhu, na bie zou le*.  
 ‘If you can stay *jiu*<sub>1</sub>-at campus, then don’t leave.’
- d. Question: *Ni xuexiaoli jiu keyi zhu ma?*  
 ‘Can you stay *jiu*<sub>1</sub>-at campus?’
- SI:** It is less likely that you can stay at campus than at more distant locations.

- (22) Question: *Ruguo you-ren lai zhege wenti jiu jiejie le ma?*  
 ‘If someone comes, this problem *jiu*<sub>1</sub> solve<sub>LE</sub>?’
- SI:** It is less likely that the problem gets solved with someone coming than with more than one person coming (or other contextual alternatives).

The last question that remains is how the conditionality is derived for CC-less *jiu*-conditionals. While we do not have a fully developed answer, any following account needs to consider the fact that in Mandarin, not only *jiu* but also *cai* ‘only’ and *ye* ‘also’, as well as modal adverbs, seem to trigger conditionality without CCs. Instead of treating these as cases of conditional conjunction (see Section 3.1), we propose a uniform pragmatic account in Section 5.

## 5 A uniform pragmatic account of Mandarin conditionals

Our account is based on the following patterns of conditionals in Mandarin, where CPs include *jiu*, *ye*, *cai*, and modal adverbs.

- (23) Mandarin conditional constructions
- P, Q.* (Type 1: ambiguous between conjunctive vs. conditional meanings)
  - CC P, Q.* (Type 2: unambiguously conditional)
  - P, CP Q.* (Type 3: ambiguous between conjunctive vs. conditional meanings)

Unlike Klinedinst and Rothschild (2012) and Liu (2017), we do not attribute the ambiguity of (23a) to that of a covert or overt conjunction. Instead, we argue that it is the subjective (non)veridicality (Giannakidou 1998) property of the first clause *P* that determines the reading of the sentence. If *P* is nonveridical with regard to the speaker's epistemic state – that is, it is not entailed or presupposed – we receive a conditional reading. For example, in (24), the NPI *move a finger* indicates that *P* is not entailed; that is, it forces a nonveridical reading of the first clause, also triggering a conditional reading (cf. (10)). Or, in a context where the speaker does not know whether the addressee is male or not, the sentence (25) will then have a conditional reading. If the speaker knows that the addressee is male, the sentence gets a conjunctive reading. In addition, the sentence can also get a counterfactual reading in contexts where it is presupposed that the addressee is not male; we will not discuss this reading for reasons of space.

- (24) *Tamen da gongsi dong gen shouzhi, nimen jiu dei pochuan.*  
 they big company move CL finger, you *jiu*<sub>1</sub> have to go broke  
 'If the big companies move a finger, you will have to go broke.'
- (25) *Ni shi nan de, wo mashang he ni jiehun.*  
 you be male DE, I immediately with you marry  
 'If you are male, I will marry you right away.' /  
 'You are male. I will marry you right away.' /  
 'If you were male, I would marry you right away.'

If *P* is entailed or presupposed by the context, we get a conjunctive reading. In contrast, the presence of the factive adverb (Liu 2012) in (26) creates a veridical environment so that the first clause is entailed, triggering a conjunctive sentence. Without support from a broader discourse context or the narrow linguistic context, such sentences are ambiguous.

- (26) *Kexi ta mei zhaodao canting, wo you wufa fenxiang wanglu gei ta.*  
 unfortunately he not find canteen, I also no.way share internet to him  
 'Unfortunately, he didn't find the canteen, and I also can't share the internet with him.'

In addition to common knowledge, polarity items, and adverbs, in spoken language, the intonational and stress patterns of *P* and *jiu* can also help. In (27), we show that without contextual or intonational cues, the sentence is ambiguous. The same mechanism applies to conditionals licensed by *cai* or *ye*, as in (28) and (29). The common crucial difference between readings 1 and 2 across (27)–(29) is the (non)veridicality property of the first clause.

- (27) *Ta shi yisheng jiu hui zheyang xiang.*  
 he is doctor *jiu* can this.way think  
 a. Reading 1 (*jiu*<sub>1</sub>): 'If he is a doctor, he already can think so.'  
 b. Reading 2 (*jiu*<sub>2</sub>): 'He is a doctor. Thus, he only can think so.'
- (28) *Ta shi yisheng cai hui zheyang xiang.*  
 he is doctor *cai* can this.way think  
 a. Reading 1: 'Only if he is a doctor, he can think so.'  
 b. Reading 2: 'Only because he is a doctor, he can think so.'



- (29) *Ta shi yisheng ye hui zheyang xiang.*  
 he is doctor ye can this.way think  
 a. Reading 1: ‘If he is a doctor, he can think so too.’  
 b. Reading 2: ‘He is a doctor. Thus, he can think so too.’

Furthermore, we believe that the basis for the selection of *P* as a condition (when *P* is nonveridical) or cause (when *P* is veridical) – from a list of possible conditions/causes – for *Q*, is “the extra-linguistic principle of relevance” (Haiman 1978: 586).

What about (23b), where the conditional contains a CC? In our analysis of (23a) and (23c), it follows naturally that the lack of ambiguity in (23b) is due to the CC creating a nonveridical context. That is, the discourse function of CCs in deriving conditionality is similar to that of NPIs or pragmatic context. The core is the property of nonveridicality, not the lexical ambiguity of an overt or covert *and*. But how does this account deal with factual conditionals, such as (30a)?<sup>3</sup> We show that B’s use of *jiu*-conditionals is only compatible when the first conjunct is subjectively nonveridical, that is, nonveridical with regard to B’s epistemic state; see (30b). This might apply to factual or premise conditionals in general, an empirical question to be tested.

- (30) a. A: *Yuehan lai-le.*  
 ‘John arrived.’  
 B: *Laile, jiu kuai rang ta jin lai ba*  
 ‘If he’s here, just let him in.’  
 b. B’: *Zhende/Shi ma? Laile, jiu rang ta jin lai ba.*  
 ‘Really? If he’s here, just let him in.’  
 B’’: *#Wo zhidao. Laile, jiu rang ta jin lai ba.*  
 ‘I know. If he’s here, just let him in.’

## 6 Conclusion

In this paper, our discussion has focused on *jiu*-conditionals in Mandarin Chinese. We assume that *jiu* is ambiguous and relate *jiu* in conditionals to unstressed *jiu*<sub>1</sub> with left associates and a nonexclusive meaning. We reviewed existing accounts in the literature and argued against a conditional conjunction analysis assuming an ambiguous covert conjunction for *jiu*-conditionals or the like. Instead, we propose a multidimensional account for *jiu*-conditionals where *jiu* contributes scalar inferences. Furthermore, we propose a uniform account of Mandarin conditionals in the form of conjunction with or without connectives or particles, relying on the notion of (non)veridicality. While the details still need working out, we believe that multidimensionality and (non)veridicality are two crucial notions for understanding Mandarin conditionals, in addition to scalarity and additivity, as showcased by *jiu* and other particles.

There are a number of related issues that we cannot discuss here. Mandarin can use *name* (‘that way’, i.e., ‘then’) in conditionals, and like *jiu* this can co-occur with overt CCs. *Name* and *jiu* can also co-occur with each other; see (31a). Both are bad in biscuit conditionals, as shown in (31b). What is the function of *name* in Mandarin conditionals, in comparison to Mandarin *jiu* and English *then* (see the contrast in (32))?

- (31) a. *Ren zhi you mengxiang er mei you yongqi, (name) mengxiang*  
 person only have dream but not have courage, (then) dreams  
*jiu zhi shi kongxiang.*  
*jiu*<sub>1</sub> only be fantasies  
 ‘If a person only has dreams but no courage, dreams will only be fantasies.’  
 b. *Ruguo ni duzi e, (\*name) zhuozi shang (\*jiu) you binggan.*  
 if you belly hungry then table on *jiu* have biscuits  
 ‘If you are hungry, there are biscuits on the table.’

<sup>3</sup> We would like to thank Muyi Yang for bringing our attention to this question.

- (32) *If Mary bakes a cake, (\*then) she gives some slices of it to Jack.* (Iatridou 1994)
- a. *Yaoshi Mary zuo dangao, ta gei Jack ji-kuai.*  
if Mary make cake she give Jack some slice
- b. *Yaoshi Mary zuo dangao, ?name ta gei Jack ji-kuai.*  
if Mary make cake then she give Jack some slice
- c. *Yaoshi Mary zuo dangao, ta jiu gei Jack ji-kuai.*  
If Mary make cake she jiu<sub>1</sub> give Jack some slice

Other related expressions are *cai* and scalar *dou* or *ye* (ambiguous between additive and scalar meanings). *Cai* seems to trigger biconditionality like *only if*, that is, with exclusive force, and the latter two are concessives. Regarding these two, we think nonveridicality is responsible for the conditionality, with the scalar highness for the concession meaning component.

- (33) Other related constructions we will not analyze
- a. *(Ruguo) ta qu, wo cai kai che.*  
'Only if he goes, I'll drive.'
- b. *Ta qu, wo ye bu kai che.*  
'Even if he goes, I won't drive.'
- c. *Ta qu, wo dou bu kai che.*  
'Even if he goes, I won't drive.'  
→ *ye/dou* with scalar meaning, triggering concessive meanings

These related matters await further investigation. While conditionals in Mandarin Chinese are too complex a topic to be dealt with in such a short paper, we hope that the analysis we sketch here will be useful for a better understanding of them.

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## Appendix

Here, the Mandarin example sentences discussed in the paper are provided in characters, together with the sources where they are publicly available (BCC: <http://bcc.blcu.edu.cn>; CCL: [http://ccl.pku.edu.cn/ccl\\_corpus/xiandaihanyu/](http://ccl.pku.edu.cn/ccl_corpus/xiandaihanyu/)).

- (3) a. 他不来, 我不走。  
b. 你不喜欢, 我拿回去退掉。
- (4) (如果)张三喝酒, 我(就)骂他。
- (5) a. 你娶了那个姑娘, 我会按成家的标准给你工钱。(BCC, accessed 8 July 2020)  
b. 他们想决斗, 我们不会示弱, 一定奉陪。(BCC, accessed 8 July 2020)
- (6) 一个人婚前对你那样, 婚后也好不到哪去。(BCC, accessed on 8 July 2020)
- (7) 张三就吃了一只鸡。

Adapted based on the following example: 这个是双人套餐, 但是如果是两个大男人来吃的话, 就不太够了, 毕竟我(一个人)就吃了一只鸡... 'This is a two-person menu, but if two big men come for it, it won't suffice, as I (alone) **jiu**<sub>1</sub> ate a whole chicken.' (<https://www.dianping.com/shop/129915314/dish239253219>, accessed 21 February 2021)

- (8) a. 心存梦想, 机遇就会笼罩你。(CCL, accessed 8 July 2020)  
 b. 机遇(\*就)会笼罩你, 如果心存梦想。
- (12) a. 你笑, 我就开心。
- (13) #你去太空, 我就开心。
- (14) a. 只要星期天天气好, 我\*(就)去爬山。  
 b. 光这件事\*(就)说明她很能干。
- (15) a. 只要你去, 我也去。  
 b. 只要你去, 我马上走。
- (16) a. {他们现在/现在他们}就去。  
 b. {你学校里/学校里你}就可以住。  
 c. {这个问题如果有人来/如果有人来这个问题}就解决了。
- (17) 张三就吃了一只鸡。
- (18) {他们现在/现在他们}就去
- (19) {你学校里/学校里你}就可以住。
- (20) {这个问题如果有人来/如果有人来这个问题}就解决了。
- (21) a. 你不是学校里就可以住。  
 b. 可能你学校里就可以住。  
 c. 如果你学校里就可以住, 那别走了。  
 d. 你学校里就可以住吗?
- (22) 如果有人来这个问题就解决了吗?
- (24) 你是男的, 我马上和你结婚。
- (25) 他们大公司动根手指, 你们就得破产。(CCL, accessed 8 July 2020)
- (26) 可惜他没找到(餐厅), 我又无法分享网路给他。  
 (Google, <https://travelerliv.com/blog/post/223909202>, accessed 3 March 2021)
- (27) 他是医生就会这样想。
- (28) 他是医生才会这样想。
- (29) 他是医生也会这样想。
- (30) a. A: 约翰来了。  
 B: 来了, 就让他进来吧。  
 b. B': 真的/是吗?来了, 就让他进来吧。  
 B'': #我知道。来了, 就让他进来吧。

- (31) a. 人只有梦想而没有勇气, (那么)梦想就只是空想。  
(BCC, accessed 8 July 2020)  
b. 如果你肚子饿, (\*那么)桌子上有饼干。
- (32) a. 要是Mary做蛋糕, 她给Jack几块。  
b. 要是Mary做蛋糕, ?那么她给Jack几块。  
c. 要是Mary做蛋糕, 她就给Jack几块。
- (33) a. (如果)他去, 我才开车。  
b. 他去, 我也不开车。  
c. 他去, 我都不开车。

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