Identity and Definiteness in Chinese *wh*-Conditionals

Stephen Crain
Macquarie University
stephen.crain@mq.edu.au

Qiong-Peng Luo
Macquarie University
qiong-peng.luo@mq.edu.au

Abstract. Previous studies of Chinese *wh*-conditionals leave several issues unresolved, including (i) definiteness effects; (ii) apparent violations of the novelty condition and (iii) accounting for the range of readings of Chinese *wh*-conditionals. We attempt to resolve some of these issues by analysing *wh*-indefinites as *unique* indefinites and *wh*-conditionals as special instances of topic-comment structures (i.e. *wh*-conditionals are topic-comment structures with an identity relation). Chinese *wh*-conditionals can refer to either a single situation or multiple situations, leading to either a definite interpretation or a generic interpretation respectively.

1 Introduction

For several decades, the semantics of *wh*-indefinites and *wh*-conditionals in Chinese has been a topic of debate for Chinese linguistics. In this study, we offer a somewhat novel analysis for *wh*-conditionals. A typical *wh*-conditional always contains a pair of matching *wh*-phrases, one in the antecedent clause and the other in the consequent clause. The *wh*-phrases in the antecedent and consequent clauses must be identical in number, form and reference. We add one more observation: Chinese *wh*-conditionals sometimes have an additional flavour of definiteness, semantically akin to free relatives in English.

Several accounts of Chinese *wh*-conditionals have been advanced in the literature. The most frequently cited account, by Cheng and Huang (1996), treats *wh*-indefinites as recurring indefinite expressions, but this appears to violate the novelty condition, which requires indefinites to introduce novel entities into the domain of discourse. To circumvent this problem, Chierchia (2000) proposes that *wh*-indefinites in Chinese are indefinite pronouns (i.e. pronominals), thus they can appear in the consequent of *wh*-conditionals without violating the novelty condition. However, Chierchia's account does not explain why ordinary *wh*-indefinites display Principle C effects, a finding that seems to indicate that *wh*-indefinites are R-expressions rather than pronominals. We propose to reconcile the tension inherited from previous research by analyzing *wh*-conditionals as identity statements, which are not

subject to the novelty condition. On the present account, Chinese *wh*-conditionals are ambiguous between being correlatives and conditionals. On one hand, when definiteness is added into the equation, *wh*-conditionals can be seen to share properties with free relatives in that they refer to a particular (unique) individual in a particular situation. When the context/antecedent establishes a plurality of situations, the unique individuals picked up by *wh*-phrases get relativised to situations, and the identity of the referent is not known, or not relevant. This reading is semantically akin to–*ever* free relatives in English. This reading involves universal quantification over situations. Therefore, the intuitive insight in Cheng & Huang (1996) is intact on the current account; *wh*-conditionals are donkey conditionals and have a generic interpretation.

2   Chinese *wh*-Conditionals: Definiteness Effect

The seminal Cheng & Huang (1996) summarize the typical properties of *wh*-conditionals as follows (Cheng & Huang 1996:132):

(1)   Properties of *wh*-conditionals
    a.   The (donkey) anaphor must take the form of a *wh*-word
    b.   The (donkey) *wh*-word must be identical to the *wh*-word in the antecedent clause
    c.   There must be an element in the consequent clause referring back the *wh*-word in the antecedent clause

What appears mysterious here is that unlike donkey conditionals in English, where the anaphors always take the form of a pronominal, Chinese *wh*-conditionals take an identical *wh*-word as the donkey anaphor. This is the notorious 'matching effect': *wh*-phrases in the antecedent and consequent clauses of *wh*-conditionals must be identical in number, form and reference. Even minor variations are unacceptable. Example (2) below illustrates a typical *wh*-conditional in Chinese, while (3) illustrates the matching effect:

(2)   <u>Shei</u> xian lai,   <u>shei</u> xian chi.
    who first come who first eat
    Lit.: 'If X comes first, X eats first'

(3)   *<u>Shei</u> xian lai,   <u>shenme ren</u> /<u>tongyang de ren</u>   xian chi.
    who   first come   what person the-same DE *person first eat*

    Cheng & Huang analyse the *wh*-conditionals as a case of 'unselective binding' a la Heim (1982) and Kamp (1981). They treat *wh*-phrases in *wh*-conditionals as indefinites (i.e. variables) that are unselectively bound by a

default universal necessity operator. The implicit operator provides universal quantificational force for *wh*-conditionals. Their semantic representation for (2) are provided as (4) below:

(4) $\forall_x$ (x come first → x eats first)   (Cheng & Huang 1996:132)

According to Cheng & Huang, (2) means *everybody who comes first eats first*. This semantics has a plurality commitment. It is committed to multiple comers and eaters. However, intuitively, (2) is true if for one particular situation, say, Ann's birthday party tonight, there turns out to be *exactly one* individual who comes first and eats first. It is semantically odd to say *everybody in the room studies the kangaroo* if there is *exactly one* man in the room. If this is the case, it shows (2) has a *unique* reading in the sense of Kadmon (1990).

The *unique* reading of *wh*-conditionals correlates with the definiteness effect of *wh*-conditionals, an observation missed in Cheng & Huang (1996). The definiteness effect of *wh*-conditionals can be illustrated by example (5), which shows that the *wh*-indefinite in the antecedent clause can be referentially linked to a *partitive* expression in the consequent clause:

(5)   <u>Shenme ban</u>   biaoxian hao,
      what   class perform   well
      <u>shenme ban de sanfenzhiyi</u> jiu   keyi dedao jiangli.
      what   class DE *one third   then can   get   reward*
      'One third of whatever class that perform(s) well will get a reward'

Example (5) casts doubt on Cheng & Huang's claim that *wh*-indefinites in Chinese *wh*-conditionals are genuine indefinites, because the *wh*-phrase is used as the complement of a partitive with the form 'NP of *wh*-NP'. An ordinary indefinite cannot be used as the complement DP in a partitive. It is well-known that the partitives with the form 'NP of DP' are subject to the Partitive Constraint (Jackendoff 1972, Barwise & Cooper 1981).

If we take a stand that *wh*-indefinites in *wh*-conditionals are *definite description*-like expressions, we may be able to capture both the uniqueness and the definiteness effect.

3   The Novelty Condition and Principle C

Cheng & Huang treat *wh*-indefinites as Heimian indefinites (e.g. *a farmer*, *a donkey*, etc.), but this runs into a problem with the novelty condition. Ordinary indefinites are subject to the novelty condition (cf. Heim 1982, 365f):

(6)   * If a man$_i$ comes first, a man$_i$ eats first.

As example (6) indicates, ordinary indefinites are required to introduce novel entities into the discourse. If *wh*-phrases are like indefinites, they should each introduce a novel entity to the discourse. This prediction hasn't been borne out, because in Chinese *wh*-conditionals, the *wh*-phrase in the antecedent and the one in the consequent are identical in reference. In other words, the *wh*-phrase in the consequent of a conditional introduces a familiar referent rather than a novel one. As Chierchia (2000:17) puts, this represents a very bizarre picture:

(7)   a.   *wh*-words must introduce a novel variable in the antecedent of a conditional
       b.   *wh*-words must introduce a non-novel variable in the consequent of a conditional

Chierchia has convincingly shown that if (7) is right, then we no longer have a predictive theory of indefinites. The question is why Chinese *wh*-conditionals bluntly violate this novelty condition, which is supposed to be obeyed by indefinites generally.

To solve this problem, Chierchia proposes that *wh*-indefinites in Chinese are indefinite pronouns (i.e. pronominals). This explains why *wh*-indefinites can appear in the consequent clause of *wh*-conditionals without violating the novelty condition. A pronominal can be used as a discourse anaphor. A simple example would illustrate this idea:

(8)   If a man$_i$ comes first, he$_i$ eats first.

At first glance, this seems to be a reasonable solution. Some issues need to be addressed, however. First, if *wh*-phrases in Chinese are indeed indefinite pronouns (i.e. pronominals), we expect they should always introduce a familiar discourse referent in the antecedent of a conditional, as pronominals (and definite descriptions) always do. But a *wh*-phrase in the antecedent of a conditional, however, doesn't require a linguistic antecedent. One might wonder why the familiarity condition doesn't apply here. The second problem is more severe. On Chierchia's account, *w*h-phrases are expected to be subject to Principle B (because they are pronominals) and pattern with ordinary pronouns. However, *wh*-phrases in Chinese display Principle C effect, a fact unexpected on Chierchia's analysis. Consider the following examples:

(9)   a.   Shei$_i$ shuo ta$_i$ xihuan wo?
           who said he like   me

'Who said he likes me?'
{John$_i$ said he$_i$ likes me, Peter$_j$ said he$_j$ like me, …}

b. *Ta$_i$ shuo shei$_i$ xihuan wo?
     he said who like   me
     'Who did he say likes me?'
     {he$_i$ said John$_i$ likes me, he$_j$ said Peter$_j$ likes me, …}

(9b) is a strong crossover case. The contrast between (9a) and (9b) indicates Chinese *wh*-phrases are not like pronominals but R-expressions.   The following examples adopted from Tran & Bruening (2006) constitute another supporting observation:

(10) a. *Ta$_i$ shuo shei$_i$ xihuan wo meimei?
       he said who like   my sister
       'Who did he say like my sister?'

   b. Ta$_i$ zongshi shuo *shei$_i$ / ta$_i$ xihuan wo meimei.
       he always said   who he/she like   my sister
       'He$_i$ (always) says *who$_i$/ he$_i$ likes my sister'

   c. Shei$_i$ (yaoshi) shuo ta$_i$ /*shei$_i$ xihuan wo meimei, wo jiu   zou ta.
       who if   say he who like   my sister I   then hit he
       'If somebody$_i$ says he$_i$/*who$_i$ likes my sister, I will hit him'

As all the examples under (10) clearly indicates, Chinese *wh*-phrases stand with R-expressions rather than pronouns. We face a paradoxical dilemma here. On one hand, if Chierchia's proposal is indeed right, then we have to explain why *wh*-phrases display Principle C effect everywhere else. On the other hand, if *wh*-phrases are not pronominals, why can they appear in the consequent clause and remain anaphorically linked to the *wh*-phrase in the antecedent in *wh*-conditionals?

4   Indefinites and Uniqueness

The definite reading of *wh*-conditionals is most ready when a unique referent is being established. To consider:

(11) A: (Zai zheci xuanju zhong), Zhang San bu   xihuan   shei?
       (in this election,)   *Zhang San* NEG *like   who*
       'Whom doesn't Zhang San like (in this election)?'

   B: Shei bu tou   Wang Wu de piao,
      who   neg vote Wang Wu DE *vote*
      Zhang San jiu   bu   xihuan shei.
      Zhang San then NEG *like   who*

'Who doesn't vote for Wang Wu, Zhang San then doesn't like who.'

When uttered out of the blue (i.e. in a neutral context), (11B) can mean Zhang San hates *whoever* that doesn't vote for Wang Wu. If there is more than one event involving voting for or against Wang Wu, then Zhang San would have correspondingly more than one (possibly different) persons to dislike. This reading is akin to general statement about Zhang San's personal disposition. However, when the antecedent establishes some unique referent, like in (11A) above, (11B) is true in the situation that there is *exactly one* person, say, Li Si, who doesn't vote for Wang Wu, and Zhang San dislikes Li Si. However, (11B) also allows a multiple-individual reading. Suppose there are three persons, Li Si, Ma Liu and Zhang Qi, who decide not to vote for Wang Wu, then (11B) is true only when Zhang San dislikes *all* the persons that don't vote for Wang Wu (in this case, they are Li Si, Ma Liu and Zhang Qi).

The *exactly one* reading is the *uniqueness* reading. But what is *uniqueness*? How can an indefinite generate a *unique* interpretation? In the literature, it has been reported that an indefinite *under certain circumstances* can have a unique reading (cf. Evans (1980), Kadmon (1990), Heim (1990), among others). There are multiple ways to encode the uniqueness into semantic representations. We follow Brasoveanu (2007, 2008), who adopts a Russellian treatment. The Russellian semantics of definites consists in *existence*, *maximality* and *singleton* presuppositions. This can be demonstrated below:

When the wh-phrase denotes a singleton:

(12) Shei   xian   lai
$\underline{\exists X\ [X \neq \varnothing\ \&}$ $\underline{X=\{y: \text{person (y)} \& \text{first\_come (y)}\}}$ & $\underline{\#X=1]}$
     existence   maximality   singleton
                              uniqueness

When the wh-phrase denotes a plurality:

(13) Na-xie   ren   xian lai
     which-cl (pl.) person first come
$\underline{\exists X[X \neq \varnothing\ \&}$ $\underline{X=\{y: \text{person (y)} \& \text{first\_come (y)}\}}$ & $\underline{\#X>1]}$
     existence   maximality   plural

When the *wh*-phrases denote a plurality, we assume there is a maximality operation in the sense of Link (1983) and Grosu & Landman (1998) that turns the plurality into a maximalized individual. In lattice-theoretic terms, if a and b are individuals, then the sum of a and b (written as a $\oplus$ b) is also an

individual. The technical details of this lattice-theoretic approach to plurality are immaterial here. We entertain here the maximal individual of a poset <X, ≤> is the least upper bound of X.

The MAX operation always returns a plural individual. In this sense it is still *singular*, and the *wh*-phrases remain *unique*. Kadmon (1990) has another example that shows uniqueness is related to maximal collections. In the following (14), *they* /*three of them* refer to the maximal collection of the chairs that Leif owns.

(14) Leif has <u>four chairs</u>. <u>They</u> / <u>Three of them</u> are in the kitchen. (ex. 24)

This uniqueness-based account offers a straightforward explanation for the definiteness effect, for both the *singular-individual* reading and the *multiple-individual* reading. Our analysis predicts that the following sentence is ambiguous between distributive and collective interpretations:

(15) <u>Shenme ban</u> biaoxian hao,
    what   class   perform well
    <u>shenme ban de sanfenzhiyi</u> jiu   keyi dedao jiangli.
    what   class DE one-third   then can get   reward
    'One third of whatever class(es) that perform well get(s) a reward'

The sentence allows both the distributive reading and collective reading. On the distributive reading, it means for *each* class that performs well, one third of its members will be rewarded. The other reading, i.e. collective reading is compatible with the situation that for some class, none of its members get rewarded, while for some other classes, all of the members get rewarded. While this ambiguity can be attributed to a lack of number specification in nominal quantification in Chinese, the definiteness/uniqueness plays an essential role here.

5   *Wh*-Conditionals as Identity Statements

We have shown that the definiteness effect that remains elusive on the previous accounts can be captured by assuming *wh*-indefinites encode uniqueness. The uniqueness effect shows up when anaphora is attempted. However, there is a notable difficulty with this claim. While a unique indefinite is always referred back by a pronoun (e.g. *Leif has a chair.* **It is in** *the kitchen*), in *wh*-conditionals, the anaphor is an identical *wh*-phrase rather than a pronoun. How to account for this matching requirement in *wh*-conditionals?

A straightforward solution to this problem is to treat *wh*-conditionals in Chinese as identity statements. If *wh*-conditionals are treated along with identity statement, we will also be able to reconcile the tension between the novelty condition and Principle C. It is well-known that overt identity statements are immune to the novelty condition:

(16) A man who drinks alcopops is a man who gets a hangover.

In (16), the indefinite *a man* doesn't c-command the other one. However, the novelty condition doesn't apply here, and the indefinite expressions are happy to remain identical in reference. We assume in identity statements like (20), the novelty condition is being *overridden* here. It is being overridden because there is an overt identity operation that forces the indefinite expressions to pick up the same referent. In another word, the novelty condition is an *Elsewhere Condition* (EC) which applies only when it can. If Chinese *wh*-conditionals are subject to a similar identity operation, then we find a way to reconcile the tension between the novelty condition and Principle C. But how could this be achieved?

On the present account, *wh*-indefinites are subject to a σ-operation, where σ should be understood to stand for uniqueness:

(17) Shei xian lai,   shei xian chi.
      The antecedent: ⟦ shei xian lai ⟧ = σx. **person**(x) & **first_come** (x)

The issue here is how the *wh*-indefinite in the consequent clause is being interpreted. We assume there is a covert *identity* operation:

(18) Shei xian lai, shei xian chi
      [who first come]$_x$ λx [first eat [σy [**person** (y) & y=x]]]

On this account, the antecedent *wh*-indefinite *shei xian lai* 'who comes first' binds the variables *x* by λ-abstraction. The *wh*-anaphor is interpreted as a definite description, introducing a variable that is identical to the one previously introduced, which is *x* in the antecedent.

It is been proposed, since Cooper (1979), that donkey anaphors should be interpreted as generalized D-type pronouns (cf. also Heim & Kratzer 1998, Elbourne 2005, among others). The D-type pronouns contain both a definite description and a free relation variable R which helps fix the referent of the definite description. Cooper assumes R is provided by pragmatic saliency. This idea has been challenged by Heim (1990), who notices that donkey anaphora is subject to a condition which she dubs as Formal Link Condition, that is, the donkey anaphor requires an explicit linguistic antecedent (e.g. *every man who has a wife is sitting next to her* vs. [*/??]*every married man is*

sitting next to her). Chinese *wh*-conditionals may constitute another supporting evidence for the D-type pronoun analysis for donkey anaphors. Instead of looking for **any** linguistic antecedent, the *wh*-anaphor looks for an **identical** antecedent to fix its referent. R in this case is always provided by an explicit linguistic antecedent. And 'identity' is to be understood in Leibniz's way (i.e. 'x =y' is true iff for any predicate P, $P(x)$ **if and only if** $P(y)$). This treatment yields the correct semantics for *wh*-conditionals:

(19) a. the antecedent: ⟦shei xian lai ⟧ = σx. [**person** (x) & **first_come** (x)]
   b. the *wh*-anaphor: ⟦shei (xian chi) ⟧= σy.[**person** (y) & y=x & **R**$(y))$]
   c. R → λx. **first_come** (x)
   d. the *wh*-anaphor: ⟦ shei (xian chi) ⟧ = σx. [**person** (x) & **first_come** (x)]
   e. the consequent:λz. **first_eat** (z) (σx. [**person** (x) & **first_come** (x)])
        = **first_eat** (σx. (**person** (x) & **first_come** (x)))
   g. ⟦shei xian lai, shei xian chi⟧=1 iff the individual who comes first is the individual who eats first.

On this account, *wh*-conditionals are semantically akin to free relatives in English. Despite the structural differences, it is easy to see Chinese *wh*-conditionals and English free relatives may share a common semantics, since all English free relatives can be translated as identity statements (cf. Moltmann (2010)):[1]

(20) Whoever comes first eats first
         = the first comer is the first eater
      I don't like whatever you bought
         = the thing(s) you bought is(are) the thing(s) I don't like

The *matching requirement* provides another independent evidence for this analysis. We assume without the copula to mark identity in Chinese *wh*-conditionals, identity of form is a prerequisite to identity of reference (see (3)). Not surprisingly, we find the same form-matching restriction is also operative in English identity statements. Consider the following examples:

(21) */? A man who drinks alcopops is someone / the same person / the man

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[1] The structural differences between Chinese *wh*-conditionals and English free relatives may turn out to be superficial. Citko (2001) proposes that in a simple free relative like *John ate what Mary cooked*, the single instance of *what* is an argument of both *ate* and *cooked*. However, due to *Deletion under Identity*, the lower copy *what* gets deleted at PF. The only difference between Chinese and English, viewed in this light, is unlike English, the two copies of the *wh*-indefinite must stay at PF in Chinese.

who gets a hangover.

To summarize, it is the identity relation that is responsible for the identity in reference between the *wh*-indefinites and the inapplicability of the novelty condition in *wh*-conditionals. This identity reading renders *wh*-conditionals semantically akin to identity statement.

The above discussion results in a novel syntactic analysis for *wh*-conditionals. That is, *wh*-conditionals are topic-comment structures like correlatives (cf. Bittner 2001, Dayal 1997, among others), in which the antecedent *wh*-indefinite is topical, which is commented by the consequent *wh*-clause. We believe this analysis is on the right track, for several reasons. First, to treat *wh*-conditionals as topic-comment structures, we can derive the identity in reference between the *wh*-indefinites effortlessly. All we need to do is to assume the relationship between the topic and comment is that of identity. Second, the analysis suggests a more motivated explanation for the matching requirement in *wh*-conditionals. On this analysis, the *wh*-indefinite antecedents are *topics*, and we cannot mark an indefinite as topical (by means of *wh*-morphology) and not comment about it: 'the intuitive idea is that topic-comment sequencing presupposes that the comment is about the topic. It requires … every topical discourse referent introduced in the topic updated to be picked up by an anaphoric element in the comment update' (Bittner 2001). We believe this move (i.e. to treat *wh*-conditionals as topic-comment structures) is welcome. Recently, it has been frequently proposed that conditionals are topic-comment constructions (cf. Lewis 1973, Bittner 2001, Schlenker 2004, Ebert, Endriss & Hinterwimmer 2008, among others).

6   On the Generic Interpretation of *wh*-Conditionals

In addition to the definite interpretation, *wh*-conditionals can also be used as general statements and are open to a generic interpretation. This interpretation has ignorance, indifference and free choice implications.

6.1   The Ignorance Implication

Wh-conditionals have some ignorance implications (i.e. the speaker/agent's epistemic uncertainty about identity of the referent denoted by the *wh*-phrase, or more plainly, the speaker/agent doesn't know *who* has the property P). So (22a) has some implication as (22b):

(22) a. <u>Shei</u> xian lai,   <u>shei</u> xian chi.
         who first come who first eat
     b. *The person who comes first eats first, but I don't know who will be the one that comes first*

6.2   The Indifference Implication

Wh-conditionals also have indifference implications (i.e. the speaker/agent's intentional or unintentional indiscriminateness with respect to the identity of the referent denoted by the *wh*-phrase, or more plainly, the speaker/agent doesn't care *who* has the property P). (23a) has some implication as shown by (23b):

(23) a.   <u>Shei</u> zuihou   lai   wanhui, <u>shei</u> xi   wan
          who last   come party   who   wash dish

   b. *the person who arrived last for the party washes the dishes*
      Counterfactual implication: it could be anyone else that washed the
      dishes if he was the last person for the party

6.3   Free Choice Implication

Wh-conditionals also have some free choice implication *under certain circumstance*. To consider:

   Context: the university requires 50 credits for a bachelor's degree, and Mary has already got 47 credits. To fulfill the university's requirement, Mary has to get 3 more credits. There are three courses Mary can register for this purpose. Each course has 3 credits. The following sentence is felicitous:

(24) Ni xuan   <u>na-men   kecheng</u>, <u>na-men   kecheng</u> jiu   keyi
    *you choose   which-*CL* course   which-*CL* course   then can*
    rang ni   biye.
    let   you graduate
    'Whichever course you take can let you graduate'

6.4   Deriving the Generic Interpretation

These observations bring *wh*-conditionals semantically closer to –*ever* FRs in English. Dayal (1997) argues that –*ever* FRs in English always involve some universal quantification over identity alternatives to the worlds of evaluation. Following Dayal, we assume the generic reading of Chinese *wh*-conditionals are derived in a similar way. The *wh*-conditionals contain a null adverbial quantifier GEN over world variables. And *wh*-phrases are concepts, i.e. from possible worlds to individuals:

(25) ⟦ shei xian lai ⟧ = $\lambda i.\ \sigma x[$**first-come** $(x)](i)$

(26) GEN $\Rightarrow \lambda P \lambda Q. \forall i\text{-Alt} \in f(w)(s)) \{P(i), Q(i)\}$, where
    (i) $f(w)(s)$ is the set of worlds the speaker's belief hold and
    (ii) a world $w' \in f(w)(s)$ is an i-alternative iff there exists some w'' such
        that $\sigma x[P(w')(x)] \neq \sigma x[P(w'')(x)]$

This semantics captures the modal implications (i.e. the ignorance, indifference and free choice implications) by treating them as *presuppositional* content of *wh*-clauses and attributes the generic reading to a generic context.[2] The *unique* referent denoted by the *wh*-phrase is being relativised to worlds, i.e. for each world, there is a *unique* individual involved in it. And quantification is over the worlds rather than individuals. We arrive at the following truth conditions for the generic reading:

(27) a. $[\![$shei xian lai, shei xian chi$]\!] = 1$ iff
      $\forall i \in f(w)(s)\{$**first_eat** (i) $(\sigma x$ (**person** (x) & **first_come** (x) $(i))\}$

  b. As far as the speaker's belief is concerned, the first comer is the first eater

7   Are Chinese *wh*-Conditionals Ambiguous?

The previous discussion unambiguously leads to an ambiguous end, namely, that Chinese *wh*-conditionals are ambiguous. Semantically, Chinese *wh*-conditionals are akin to English FRs, which have two varieties: plain FRs and –*ever* FRs. English plain FRs are argued to have a prima facie definite/unique interpretation, while –*ever* FRs have some universal quantification interpretation (cf. Jacobson (1995), among others). Dayal (1997) proposes the universal quantificational force of –*ever* FRs is contributed by *ever*, which adds some modality to the semantic representation and renders FRs to be interpreted *attributively*.[3] A plausible assumption extending to Chinese *wh*-conditionals is that Chinese *wh*-conditionals conflate this distinction (between plain FRs and –ever FRs) and are always open to two interpretations. Chinese lacks a lexical item like *ever* for the generic interpretation, and sometimes only the context/pragmatics can tell which reading is the most salient one.

At this moment, we should give some credit to Cheng & Huang (1996), who analyse *wh*-conditionals on a par with donkey conditionals in English. The ambiguity between definite and generic readings of *wh*-conditionals is also present in English donkey conditionals. Kadmon (1990) observes that donkey conditionals have both an absolute unique (definite) reading and a universal reading. She distinguishes one-case conditionals from multi-case conditionals (e.g. **one-case conditionals**: *If there is a doctor in London and*

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he is Welsh, then we are all set vs. **multi-case conditionals**: *If a semanticist hears of a good job, she applies for it*).

We propose the choice between the two interpretations is regulated by context in Chinese. When the context is unspecified about the fixation of the referent, it has a generic reading, whereas when the context imposes some *absolute* uniqueness requirement of the referent, it has a definite reading:

(28) Wo wangji ni jie-le   ji-ben   shu gei wo le
     *I   forget you lend-*ASP *how-many-*CL *book to   me* ASP
     Danshi, ni jie-le   <u>shenme</u> gei wo, wo jiu   huan-gei ni
     *But   you lend-*ASP *what   to   me I   then return-to you*
     <u>shenme</u> le.
     what   ASP
     I don't remember how many books you lent me, but
     I've returned to you whatever books you lent me
     ✓ *I've returned to you the books you lent me*
     ✓ *I've returned to you all the books you lent me*

In (28), when the antecedent specifies a particular case/situation (i.e. book-lending by you to me), the generic reading is no longer the preferred one. And the ignorance and indifference implications also disappear. (28) simply expresses the speaker has returned *all* the books the addressee lent to him.

Semantically, the difference between the definite vs. universal readings of Chinese *wh*-conditionals boils down to a difference in *granularity level* of the quantification (see Brasoveanu 2007). The quantification can be *coarse-grained*, i.e. we 'collectively' quantify over topical cases/situations, which boils down to quantifying over topical individuals – and the consequent clause is predicated about these individuals. This yields the definite /unique reading. Alternatively, the quantification can be *fine-grained*, i.e. we 'distributively' quantify over the topical cases/situations introduced by the antecedent – and the consequent clause is predicated of each of such cases/situations. This yields the universal interpretation.

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