




SQUIB

# Chinese copy raising and its implications for predication

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## Abstract

This study examines the copy raising constructions in Chinese and proposes an integrated analysis built on the insights of the prominent proposals from recent years. It argues that the matrix subject in Chinese copy raising is base-generated and requires a coindexed copy in the complement. Though concurring with Landau's (2011) predication theory that recognizes theta assignment and predication as two ways of semantically licensing an argument, this squib differs from him in assuming that languages like Chinese can be parametrized in not treating the perceptual source as thematic. It is further argued that in Chinese, the perceptual source construal of the subject does not come from theta assignment but rather as an implicature which interprets the matrix subject to be involved in the topic event denoted by the perception verb.

## 1. Introduction

The exact nature of copy raising (CR), exemplified by Example (1), remains unclear.

### *Example 1*

(1) Richard<sub>i</sub> looks like he<sub>i</sub> is hungry

This construction typically features a matrix subject (RICHARD) and a perception verb (LOOK), followed by a complement clause containing a pronoun (HE) coindexed with the matrix subject. The debate over the correct analysis of CR mainly centers on three aspects: (i) whether the matrix subject is moved or base-generated, (ii) whether the coindexed pronoun, dubbed as the copy, is necessary, and (iii) whether the matrix subject must be construed as the source of perception. First, earlier studies (e.g. Rogers 1972) suggest that the derivation of CR is similar to canonical raising in that the matrix subject originates from within the embedded clause. On the other hand, recent investigations (Potsdam & Runner 2001, Landau 2011) have voiced problems with a raising analysis and instead argued the

matrix subject is base-generated sentence-initially. Second, works of Rooryck (2000) and Asudeh & Toivonen (2012) assume CR verbs in English require a copy in their complements; however, Landau (2011) argues copies are not obligatory in all contexts. Third, though works like Asudeh & Toivonen (2012) assume the matrix subject of CR must be the perceptual source of the embedded claim, studies like Landau (2011) argue the perceptual source interpretation is not necessary and, at best, dominant in certain contexts.

CR is not unique to English and has been documented in languages such as Hebrew, Swedish and Turkish. In this squib, I examine CR in Mandarin Chinese to see if its data yield insights into the key issues presented above. Particularly, I argue the matrix subject in Chinese CR is base-generated and requires a coindexed copy in the complement. It is taken as the source of perception, not because of theta assignment, but rather of an implicature which interprets the matrix subject to be involved in the topic event denoted by the perception verb. In addition to augmenting the empirical basis and theoretical discussion of CR, this squib will also consider broader implications that follow from the current investigation.

## 2. Chinese Copy Raising

### 2.1. Some general characteristics

In English, a CR predicate takes a non-expletive subject and a tensed complement introduced by LIKE, AS IF, OR AS THOUGH. The embedded complement typically contains a pronominal copy of the subject; as such, CR is a phenomenon where some constituent appears in a non-thematic position with its thematic position occupied by a pronominal copy. It can also have an expletive variant, like Example (2), expressing the same content in the embedded clause, when the copy is replaced by the original matrix subject.

#### *Example 2*

(2) It looks like/as if/as though Richard is hungry

In Chinese, though its canonical subject-to-subject raising has received much attention (Lin & Tang 1995), CR has never been discussed in the literature. Nevertheless, a quick search on the internet reveals its occurrences in conversations and narratives:<sup>1</sup>

#### *Example 3*

(3) (a) Mingxiu kanqilai haoxiang ta xia-yimiao jiuhui pu-guoqu  
 Mingxiu look like he next-second will dash-over  
 ‘Mingxiu looks like he will dash over immediately.’

<sup>1</sup> These sentences are taken from the following URLs:

(Example 3a) [https://www.books.com.tw/web/sys\\_serialtext/?item=0010630230&page=4](https://www.books.com.tw/web/sys_serialtext/?item=0010630230&page=4)

(Example 3b) <https://www.123ds.org/dudu-34/1016506/49395331.html>

(Example 3c) <https://read01.com/2KBOO48.html#.Yo93XKhByHs>

- (b) Quanan kanqilai sihu ta caishi na-ge dage  
 Quanan look like he is that-CLF the.eldest.brother  
 'Quanan looks like he is the eldest brother.'
- (c) Jericho tingqilai haoxiang ta rengran dui zhe-ge nanren ganxingqu  
 Jericho sound like he still to this-CLF man interested  
 'Jericho sounds like he is still interested in this man.'

As shown in these examples, CR predicates include perception verbs like *kanqilai* 'look' and *tingqilai* 'sound', which precede phrases introduced by *haoxiang* (...*iyang*)/*sihu* (...*iyang*) 'as if/like'.<sup>2</sup> Moreover, extraction tests show that the clauses expressing the 'as-if' semantics in CR are complements, not adjuncts: extraction is possible from *haoxiang*-clauses in CR, as in Example (4), but not from more clearly adjunct *haoxiang*-clauses, as in Example (5).

#### Example 4

- (4) (a) Xiaomei kanqilai haoxiang ta yuanyi yuanliang Lisi  
 Xiaomei look like she willing forgive Lisi  
 'Xiaomei looks like she is willing to forgive Lisi.'
- (b) Shi shei<sub>i</sub> Xiaomei kanqilai haoxiang ta yuanyi yuanliang *t<sub>i</sub>*  
 be who Xiaomei look like she willing forgive  
 'Who is it that Xiaomei looks like she is willing to forgive?'

#### Example 5

- (5) (a) Xiaomei dashengdi jianjiao haoxiang ta jiandao-le ouxiang  
 Xiaomei loudly scream like she see-PFV idol  
 'Xiaomei screamed loudly as if she saw her idol.'
- (b) \*Shi shei<sub>i</sub> Xiaomei dashengdi jianjiao haoxiang ta jiandao-le *t<sub>i</sub>*  
 be who Xiaomei loudly scream like she see-PFV  
 Intended. 'Who is it that Xiaomei screamed loudly as if she saw?'

There are several key aspects to the Chinese CR like Example (3). First, a central distinction between English raising and CR is the finiteness property of their embedded complement. With a non-expletive subject, standard raising requires an infinitival complement, while CR takes a finite complement. Unlike English, however, finiteness cannot be used to distinguish

<sup>2</sup> When appearing alone, *HAOXIANG* in the same phonetic form can serve as a raising predicate like English 'seem'. However, when *HAOXIANG* follows a main verb, it functions to introduce another full clause, as in Example (3). This can be further seen below.

- (i) Xiaomei jiang de haoxiang ta hen dong  
 Xiaomei talk DE like she very know  
 'Xiaomei talks like she knows everything.'

When *YIYANG* accompanies *HAOXIANG* and occurs at the end of the clause, the resulting sentence gives a hypothetical flavor, just like English 'as if/as though'. Given the lack of a reliable morphological test in determining *HAOXIANG*'s category, I temporarily leave it aside but only note its function parallel to *AS IF/AS THOUGH*. Among the forms expressing the 'like/as if' meaning, *HAOXIANG* is most frequently used. For ease of explication, I use *HAOXIANG* as a representative in the discussion.

between Chinese raising and CR because subject-to-subject raising out of a finite complement is permitted in Chinese. As argued in Lin (2011), *keneng* ‘likely’ is a raising predicate that takes a finite complement: the complement in Example (6) is finite given its compatibility with the sentence-final aspect *le*, which needs a reference time to anchor the event time it denotes. Crucially, *keneng* permits raising of the embedded subject out of a finite clause (see Lin 2011 on why a finite clause is not an island to A-movement in Chinese).

Example 6

- (6) Zhangsan<sub>i</sub> keneng [ t<sub>i</sub> qu Taipei le]  
 Zhangsan likely go Taipei PFV  
 ‘Zhangsan may have gone to Taipei.’

Now, even though we cannot rely on finiteness to distinguish between Chinese raising and CR, there is distributional evidence supporting their distinction: an overt subject is disallowed in the embedded complement of standard raising, as in Example (7), whereas the CR complement in Example (3) permits (or even requires, as shown later) an overt subject.

Example 7

- (7) Zhangsan keneng (\*ta) qu Taipei le  
 Zhangsan likely he go Taipei PFV

Relevant to the first point, the second notable characteristic of Chinese CR is that the copy is not confined to occur in the subject position, as in Example (8). Again, this is in clear contrast to standard raising, where the subject and the gap exhibit obligatory subject-subject dependency.

Example 8

- (8) (a) Daming kanqilai haoxiang shenme–shi dou wufa gaibian  
 Daming look like what–thing all cannot change  
**ta**–de juexin.  
 his–POSS determination  
 ‘Daming looks like nothing can change his determination.’  
 (b) Xiaomei tingqilai haoxiang tamen chang qifu **ta** (yiyang)  
 Xiaomei sound like they often bully her like  
 ‘Xiaomei sounds like they often bully her.’

Another important feature is that the copy in Chinese CR is not a resumptive pronoun. Resumptive pronouns are known not to support the bound reading by a quantificational antecedent (Potsdam & Runner 2001), such that the reference of HIM, as in Example (9), cannot vary depending on which entities are encompassed by EVERY LINGUIST. However, the copy in Chinese CR can be interpreted as a bound variable, as in Example (10), indicating that it is not a resumptive pronoun. Since resumptive pronouns are pronouns occurring in the original position of displaced elements as a last resort strategy that spells out movement traces (Shlonsky 1992), I take this to mean Chinese CR does not involve movement.

## Example 9

- (9) \*I'd like to meet every<sub>i</sub> linguist that we can't remember when we had seen him<sub>i</sub>

## Example 10

- (10) Meigeren<sub>i</sub> dou kanqilai haoxiang ta<sub>i</sub> neng qusheng  
 everyone all look like he can win  
 'Everyone<sub>i</sub> looks like he<sub>i</sub> can win.'

The aforesaid three features, taken together, suggest the matrix subject does not reach its position by movement. This conclusion provides an answer to the first controversial issue stated initially, that is, whether the matrix subject in CR is raised or base-generated: Chinese CR opts for the base-generation approach.

## 2.2. Copy and perceptual source reading

Having established the basic properties of Chinese CR, we are now in the position to further investigate its structural and interpretive profiles. First, consider the minimal pair Examples (11)–(12), which differ only in the absence/presence of an embedded subject pronoun.

## Example 11

- (11) Zhangsan kanqilai haoxiang tongguo–le ceyan  
 Zhangsan look like pass–PFV test  
 'Zhangsan seems to have passed the test.'

## Example 12

- (12) Zhangsan kanqilai haoxiang **ta** tongguo–le ceyan  
 Zhangsan look like he pass–PFV test  
 'Zhangsan looks like he has passed the test.'

Since both sentences are acceptable, one may infer a copy is optional. However, this inference cannot be correct. For one, as Examples (13)–(14) show, a copy is obligatory in the non-subject position, and its omission leads to ungrammaticality. In this light, I suggest the apparent optionality of the copy in Example (11) is only illusional: Example (11) is, in fact, canonical raising, where the matrix subject is raised from below, such that the embedded subject position is left empty. Crucially, Example (11) is NOT a variant of Example (12) with an optional copy. The patterns of Examples (13)–(14) further support this view: Since the environments of Examples (13)–(14) don't feed subject-to-subject raising, they would not create the illusion of having an 'optional' copy; rather, in these cases, the copy must appear.

## Example 13

- (13) Xiaomei tingqilai haoxiang tongxue hen zhaogu \*(**ta**)  
 Xiaomei sound like classmate very care.for her  
 'Xiaomei sounds like the classmates take good care of her.'

*Example 14*

- (14) Daming kanqilai haoxiang you ren yijing zhaodao \*(ta-de) qianbao  
 Daming look like have man already find his-POSS wallet  
 ‘Daming looks like somebody has found his wallet.’

Another argument supporting the non-optionality of a Chinese CR copy comes from interpretational properties. If Examples (11)–(12) were simply CR variants and a copy were optional, nothing at this point would predict meaning differences between them; yet the two are found to be nonequivalent: statements of Examples (11)–(12) can be uttered by some speaker who has just seen Zhangsan in person and then made the judgement that Zhangsan should have passed the test by observing, say, his visibly rejoicing attitude. Crucially, in an alternative context, where the speaker has seen the exam results, then only Example (11) can be felicitously uttered. Phrased differently, CR, as in Example (12), is infelicitous when the matrix subject is not directly perceived by the speaker. This interpretational difference would be unanticipated if Examples (11)–(12) were simply alternations of the same structure, which optionally takes a copy.

Due to these fundamental differences, I suggest sentences like Example (11) involve canonical raising, where the matrix subject is raised through the A-chain route: the raising predicate selects a single propositional argument and, just like run-of-the-mill raising cases (e.g. Example (6)), the raised subject is semantically sensitive only to the embedded predicate. As such, Example (11) is expected to be felicitous no matter whether the matrix subject is available as the perceptual source, since there is no other known semantic principle that governs the subject of raising. In contrast, sentences like Example (12) are true CR, which demands a copy, and the embedded complement serves to provide a characterization of the matrix subject in the speaker’s perceptual perspective, just like CR of other languages (Kim 2014). Specifically, I suggest the generalization in Example (15):

*Example 15*

- (15) In the complement of Chinese CR, there must be a copy coindexed with the matrix subject construed as the perceptual source (P-source)

The validity of Example (15) can be evidenced by further examining two results it entails. First, Chinese CR subjects need to be the P-source: a statement like Example (16) can only be made by X in the context of Example (17a) but not in Example (17b).<sup>3</sup>

*Example 16*

- (16) Lisi kanqilai haoxiang ta zai zuo fan  
 Lisi look like he PROG do dish  
 ‘Lisi looks like he is cooking.’

<sup>3</sup> Examples (16)–(17) are adapted from Asudeh & Toivonen (2012: (23)–(26)).

## Example 17

- (17) (a) X walks into Lisi's kitchen and sees Lisi at the stove doing something  
 (b) X walks into Lisi's kitchen. There's no sign of Lisi, but there are things bubbling on the stove and ingredients on the counter.

The difference lies in the P-source: In Example (17a), the matrix subject *Lisi* is the P-source, whereas in Example (17b), X only relies on the sight of the kitchen. Crucially, based on Example (15), Example (17a) is the direct-perception context that licenses the felicitous use of Chinese CR (Example 16), and the prediction is met. The second immediate consequence of Example (15) is that when there is no copy at all, the matrix subject cannot be understood as the P-source. This is demonstrated in Example (18),<sup>4</sup> where a copy is absent, and the subject cannot be taken as a P-source. Example (18) is acceptable simply because it's not CR per se but presumably involves an initial adjunct, headed by a silent P (cf. Larson 1985 on bare-Noun Phrase (NP) adverbs), which precedes a null expletive.

## Example 18

- (18) (Zhe zhuangkuang) tingqilai haoxiang Lisi caishi xiongshou  
 this circumstance sound like Lisi is murderer  
 'Under this circumstance it sounds like Lisi is the murderer.'

The facts presented hitherto support Example (15), indicating that THE MATRIX SUBJECT OF CR IS UNDERSTOOD AS THE P-SOURCE FOR THE EMBEDDED CLAIM; THIS REQUIREMENT OF DIRECT PERCEPTION IS IMPOSED WHEN THERE IS A COREFERENTIAL COPY IN THE COMPLEMENT CLAUSE.<sup>5</sup> This empirical profile seems unexpected since verbs like LOOK/SOUND are typically considered not to assign a  $\theta$ -role to their subjects, and thus, the observed semantic restriction on the matrix subject is surprising. To find a solution to this puzzle, several works have attempted to address the link between the copy and P-source. Next, I show that the existing solutions cannot explain Chinese CR facts and an integrated analysis which builds on their insights is proposed.

### 3. Analysis

The literature on English CR offers diverse answers to the question of whether a copy is obligatory. Rooryck (2000) and Asudeh & Toivonen (2012) assume a copy is necessary, whereas Heycock (1994), Landau (2011) and Kim (2014) cite examples showing CR verbs do not always require a copy in their complements. In this connection, Landau (2011) proposes Example (19), which ties the presence of a copy to whether a given subject is thematic:

<sup>4</sup> Example (18) resembles Landau's (2011) example (21d). Crucially, his copy-less examples (21a, b, c, e) are impossible in Chinese given that the matrix subjects are P-sources, thus demanding copies.

<sup>5</sup> In English CR, some dialectal/idiolectal differences are reported to exist; some speakers do not find the contrast of perception source to be as sharp as described. The general tendency reported here is agreed upon by over twenty Chinese speakers I consulted with. But even if it turns out that some Chinese speaker variations exist, the proposed system can still allow these variations, as will be discussed later.

## Example 19

- (19) Given a sentence ‘ $DP_i V_{\text{perc}}(\text{to } DP_j) \text{ like CP}$ ’, a copy is necessary in CP iff  $DP_i$  is not a P–source

Landau’s (2011) theory essentially works as follows. A P–source is thematic. When the matrix subject is a P–source, it can get semantically licensed, given it is a thematic argument. When the matrix subject is not a P–source, namely non–thematic in his system, it cannot be licensed by the matrix verb, so it must get licensed by predication. However, as Landau (2011) extensively argues, a CP is not a natural predicate, so a null operator needs to merge with the embedded CP to yield a predicate. Since an operator needs to bind a variable, a copy is required in this environment. This is how Landau (2011) predicts the (non–)felicitousness of English CR sentences and ties the existence of a copy to the P–source interpretation.

Landau’s (2011) account captures the English data with remarkable elegance, though it encounters problems when extended to Chinese. One obvious problem is that the properties of Chinese CR are at odds with those of English: In English, a copy is necessary if the matrix subject is not construed as a P–source, while in Chinese, the presence of a copy ensures the matrix subject receives the P–source construal. It seems then, the generalization in Example (19), as well as the principles to derive it, is not readily amenable to Chinese. Nevertheless, I contend that Landau’s (2011) predication theory can account for Chinese CR once certain cross–linguistic parameterization is built in his system. Example (20) lists the main components of the proposed analysis.

## Example 20

- (20) (a) An argument must be semantically integrated by either theta assignment or predication  
 (b) Whether P–source is an available thematic relation can be parameterized by different languages.  
 (c) For languages that don’t take P–source as thematic, the P–source interpretation in CR arises as an implicature in which the matrix subject is understood to be present in the topic event denoted by the perception verb.

In Example (20a), I follow Landau (2011) in assuming that an argument can be licensed by either bearing a  $\theta$ –role or predication. I also recognize with him that CP is not a natural predicate; for a CP to work as a predicate, it must merge with an operator, which, in turn, binds a variable due to the ban on vacuous quantification. This can be schematized as  $[_{CP} Op_i \dots \text{pronoun}_i \dots ]: \text{PREDICATE } \lambda x.P(x)$ .

Example (20b) reconciles the observed linguistic differences. There is a fair amount of literature on how many thematic relations there are in languages, with proposals ranging from a high of 15 down to two (e.g. Cruse 1973, Dowty 1991). In light of the lack of consensus, I suggest languages are parameterized with respect to the available thematic relations. Plainly, though virtually all languages utilize agent and theme relations, they may differ in whether they make use of other thematic relations, such as P–source.<sup>6</sup> For instance,

<sup>6</sup> I assume with the literature that certain thematic relations, like agents, are universal as they are part of a basic semantic ontology and the proposed parameterization mainly concerns thematic relations that are lower on various thematic hierarchies (Levin & Rappaport Hovav 2005).



languages like English may admit P-source as an available thematic relation, allowing it to be linked to arguments, while languages like Chinese are parametrized to not make P-source available as a thematic relation. This difference in the thematic inventories captures the fundamental observation of the current study – the fact that in Chinese CR, a copy is present and coindexed with the P-source construed matrix subject. Given that P-source is not a thematic relation in Chinese, the matrix subject in CR cannot get licensed via  $\theta$ -assignment but needs to resort to the other strategy, that is, predication, by turning the CP into a predicate. Following Landau's (2011) theory, it means merging an operator, which binds a pronoun variable. Together, Example (20a, b) derives the fact that Chinese CR necessitates a copy in the complement. In this sense, the current proposal partially agrees with Landau (2011) in assuming CP is not predicative by nature and disagrees with him in not taking P-source as a thematic relation universally.<sup>7</sup>

Example (20c) addresses how the matrix subject is understood as the P-source if it does not get the relevant  $\theta$ -relation. I suggest the P-source reading is derived by virtue of topic-comment interaction. As argued in Kim (2014), CR has a fixed topic-comment structure, such that, as Example (21) shows, (i) the matrix subject, representing given information, cannot be indefinite; and (ii) the utterance must be a characterization of the matrix subject.

#### Example 21

- (21) {Zhe-ge /\*You-yi-ge} haizi kanqilai haoxiang ta zai shuohuang  
 this-CLF have-one-CLF kid look like he PROG lie  
 ‘{This/\*A} kid looks like he is lying.’

Semantically, a perceptual event involves a visual/auditory sensation imposing on an experiencer, who forms an impression or opinion, with the stimulus source possibly left unidentified (as in the earlier null expletive cases). Now, given the utterance at stake describes a perceptual event and says something characteristic about the matrix subject, a natural semantic connection to draw about the subject is that it is involved in the perceptual event as a P-source participant in the eventuality since the other possible relations are already specified. For example, in Example (21), the verb *kanqilai* describes the visual activity, and the complement clause depicts the opinion of the experiencer (= the speaker), rendering the matrix subject an inferable P-source participant in this perceptual event. In this sense, the reading of a CR sentence comprises the P-source interpretation which requires the matrix subject to be a part of whatever topic situation the utterance is evaluated against. I suggest

<sup>7</sup> One question might arise from the preceding discussion: Why can't a null pronoun function as a variable and fulfill the operator's binding need in this case? Since Chinese makes use of null pronouns on other occasions anyway, one may expect a null pronoun to suffice in the case of CR; after all, the semantic result would be the same –  $\lambda$ -abstraction over the variable. Nevertheless, the covert alternative turns out to be impossible. Recall, it was shown in Section 2 that a covert copy is not freely allowed in the embedded clause of CR, like Examples (13)–(14), though an overt one is. If it were possible to insert a covert copy to establish the operator-variable relation required of CP predication, such a copy should be able to occur anywhere in the complement, contrary to the fact. At this point, the underlying reason for the forbidden use of a covert pronoun as a variable in CR is not entirely clear, but a tentative hypothesis is this might have to do with the ambiguity avoidance effect (Temperley 2003): As demonstrated earlier, Chinese allows subject raising out of finite complements, leaving the embedded subject position empty. Thus, merging a covert copy in CR's complement is prohibited probably because it would routinely cause ambiguities that impede processing. Of course, this awaits scrutiny in greater depth, and I leave it for further inquiry.

this is how the P-source reading emerges in Chinese CR.<sup>8</sup> One prediction from this view is that if some other element in the clause realizes the P-source, the matrix subject then cannot get this construal. The prediction is met. In Example (22), the source-marking preposition specifies the P-source to be the police; as such, the subject Lisi cannot be interpreted as the P-source, and without any semantic relation to the complement clause, it fails to fulfill the topic-comment characterization condition, leading the sentence to crash.

*Example 22*

- (22) \*Genju           jingfang, Lisi tingqilai haoxiang ta caishi xiongsou  
 according.to police Lisi sound like he is murderer

There are several advantages to adopting the current proposal. One clear advantage is that it accommodates potential variations regarding the absence/presence of a copy. As mentioned earlier, there has been a debate as to whether English CR demands a copy; under the current proposal, the main difference between speakers who accept and those who reject copy-less complements can simply be traced to the availability of P-source as a thematic relation in their grammars. Another advantage is that it resolves the challenge posed to Landau's (2011) theory. In order to explain the copy optionality in English, Landau (2011) postulates that not all CPs need Op-merger, but the aboutness relation can also license propositional CPs. In addition to the problem that the precise nature of aboutness has never been made clear, it is doubtful why aboutness licensing holds only for 'propositional' CPs and how we know what environments select for propositional/predicative clauses. Crucially, the current proposal doesn't have this problem since it establishes a principled link between the ability to serve as a predicate and the necessity of a copy: (i) a CP is predicative if it is merged with an operator, and (ii) an operator must bind a variable. Obviously, one immediate consequence of the proposal is that it would suggest even a hanging topic, at least in Chinese, needs to bind a variable in its following clause. In fact, this idea was advocated in previous works (Badan 2007, Hu & Pan 2009). In Hu & Pan (2009), they decompose the concept of aboutness into a topic licensing and a topic interpretation condition. They argue in the licensing condition, a topic is licensed if there is a set Z induced by a variable *x* in the comment, and the set Z thus generated does not produce an empty set when intersecting with the set T denoted by the topic'. For our purpose, it is critical to highlight their proposal demands a variable in the complement so that the computation can proceed. Though we cannot go into the details of their analysis, it is clear the idea following from the current proposal is not far-fetched.

#### 4. Conclusion

While a consensus on the analysis of CR is not reached yet, this squib examines the recent prominent proposals, showing their insights and challenges. I show the matrix subject of Chinese CR is base-generated, construed as the perceptual source and coindexed with a copy in the complement. An integrated analysis which builds on the insights of prior scholarship is proposed. Specifically, I agree with Landau (2011) in assuming that a copy is necessary to

<sup>8</sup> This view is consistent with the finding in the evidentiality literature that evidential markers often evolve from perception verbs (Aikhenvald 2004).

establish CP predication. Differing from him, I suggest that P-source is not thematic universally, but the P-source reading can be generated as a result of topic-comment interaction, which interprets the matrix subject to be present in the perceptual event denoted by the perception verb. If the conclusions are on the right track, we have seen Chinese CR offers a new window into the issues of  $\theta$ -marking and predication.

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