

# Appositives After All\*

## Reevaluating Mandarin Relative Clauses

Noah Constant  
University of Massachusetts, Amherst

Draft February 28, 2011

- (1) jǐn yǐ cǐ lùnwén xiàn-gěi [ yīzhí zhīchí wǒ de ]<sub>CP</sub> jiějie.  
sincerely by this thesis offer-to all.along support me DE older.sister  
'I dedicate this thesis to my sister, who has always supported me.'<sup>1</sup>  
(Yang 2005, PhD thesis)

## 1. Introduction

### 1.1 Overview

The positioning of Mandarin Chinese relative clauses has been puzzling linguists since Chao Yuenren, and remains worthy of puzzle today. The basic fact is that Mandarin relative clauses show up in two<sup>2</sup> positions within the noun phrase, as in (2). I will refer to these positions as RC<sub>1</sub> and RC<sub>2</sub>, and take the dividing landmark between them to be instantiated by a demonstrative, numeral, ordinal, quantifier, classifier, or any combination thereof<sup>3</sup>:

- (2) (RC<sub>1</sub>) { Demonstrative (Numeral) Classifier  
{ Numeral | Ordinal } Classifier  
Quantifier (Classifier) } (RC<sub>2</sub>) Noun

---

\* This material grew out of a series of reading group discussions with Rajesh Bhatt, Chloe Chenjie Gu, and Aynat Rubinstein, and all three of them were integral in the development of the ideas presented here. The work with the Penn Chinese Treebank was done jointly with Chloe Chenjie Gu, and was supported by NSF Grant No. BCS-0642752 (PI: Chris Potts). I am also very grateful to the following people for discussion of this material: Seth Cable, Lyn Frazier, Seda Kan, Kyle Johnson, Chris Potts, and Claire Wu. For discussion of the judgments, I wish to thank Bitian Zhang, Chloe Chenjie Gu, and Ye Li. All remaining errors are my own.

- 1 Abbreviations are as follows: CL = classifier (e.g. *gè*) || DE = nominalizer or relativizer *de* (的) or verbal *de* (得) || DISTR = distributive or maximality operator (*dōu*) || DUR = durative aspect (verbal *-zhe*) || EXP = experiential aspect (verbal *-guò*) || ORD = ordinal *dì* || PASS = passive *bèi* || PERF = perfective aspect (verbal *-le*) || PL = plural *-men* || POSS = possessive *de* || PRT = sentence-final particle (e.g. *le*)
- 2 I'm ignoring a third position for relative clauses which is highly restricted, discussed in Aoun and Li (2003: 146) and Huang, Li and Li (2009: 215). These occur in examples like:
  - (i) *zhè zhāngsān shuō-chūlái de yī jù huà bǐ nà lǐsì xiě-chūlái de yībǎi jù hái yǒu yòng.*  
[ this [ Zhangsan say-out DE ]<sub>CP</sub> one CL word ]<sub>DP</sub> compare [ that [ Lisi write-out DE ]<sub>CP</sub> 100 CL word ]<sub>DP</sub> more have use  
'This one sentence that Zhangsan uttered is even more useful than those hundred sentences that Lisi wrote.'
- 3 Note that the dividing line I provide here for distinguishing RC<sub>1</sub> from RC<sub>2</sub> is more general, but still compatible with Lin's (2003: 200) use of "DNC"—demonstrative (numeral) classifier—to partition relative clauses into "pre-DNC" and "post-DNC".

Chao (1968) refers to clauses in RC<sub>1</sub> and RC<sub>2</sub> position as *restrictive* and *descriptive* respectively, and gives translations which suggest<sup>4</sup> that descriptives like (3b) are on a par with English non-restrictive or “appositive” relatives, as in (4b):

(3) *Restrictive vs. Descriptive* (Chao 1968: §5.3.6.2)

- a. [ [ dài yǎnjìng de ]<sub>CP</sub> nèi wèi xiānsheng ]<sub>DP</sub> shì shéi? *Chao's Restrictive (RC<sub>1</sub>)*  
 wear glasses DE that CL mister be who

‘Who is the gentleman who is wearing glasses (not the one who is not wearing glasses)?’  
 (Chao’s paraphrase)

- b. [ nèi wèi [ dài yǎnjìng de ]<sub>CP</sub> xiānsheng ]<sub>DP</sub> shì shéi? *Chao's Descriptive (RC<sub>2</sub>)*  
 that CL wear glasses DE mister be who

‘Who is that gentleman (who incidentally is) wearing glasses?’  
 (Chao’s paraphrase)

- (4) a. The man [ that is wearing glasses ]<sub>CP</sub> is my friend. *Restrictive*  
 b. The man, [ who is wearing glasses ]<sub>CP</sub>, is my friend. *Appositive (Non-Restrictive)*

This classic analysis has been rightly called into question by Del Gobbo (2001, et seq.), who demonstrates the existence of clearly restrictive relative clauses in Chao’s descriptive (RC<sub>2</sub>) position. However, Del Gobbo goes on to make the stronger claim that Mandarin in fact lacks appositive relative clauses entirely. This paper takes issue with that claim. My main finding is that while not every clause in RC<sub>2</sub> is interpreted as appositive, we must accept that at least some instances of RC<sub>2</sub> are. Furthermore, I argue that Mandarin appositives are in no way exceptional. They pass a wide range of appositivity diagnostics, including a number of specific tests that Del Gobbo claims they fail.

Following Potts (2003), the notion of appositivity I rely on here is a fundamentally semantic one<sup>5</sup>. Appositive relative clauses are just those that convey supplementing meaning along the conventional implicature dimension. I remain neutral on the controversial issue of how to treat appositives in the syntax (see De Vries 2006 §2 for an overview), and suspect that cross-linguistically, this question does not have a single answer.

The ground we gain by committing to a single core definition of appositivity is that we can leave behind the expectation that every observable property of English appositives will be a property of appositives generally. In section §2, we’ll see that many behaviors that are traditionally attributed to appositives (e.g. opacity to binding, hosting root-level adverbs, anchoring to singletons) do in fact go hand in hand with semantic appositivity, in both English and Mandarin. But looking to Mandarin,

4 While many authors attribute to Chao (1968) the claim that clauses in the “descriptive” position are non-restrictive by nature—and I carry on this tradition here—Chao (1968: §5.3.6.2) in fact brings up examples that run counter to this generalization, observing that if contrastive stress is placed on the modifier in (3b), a *restrictive* reading results. By comparison, one author who actually does promote the “traditional” Chaoist line is Hashimoto (1971).

5 Note that appealing to a unifying semantic definition of appositivity does not imply that we have invented a new sense of what it means to be appositive, or that our findings fail to bear on the traditional questions about appositives. In fact, the class of relative clauses delimited by the semantic definition that follows is precisely the class of elements that researchers like Ross (1967), Jackendoff (1977), Emonds (1979) and others have been investigating as appositives all along.

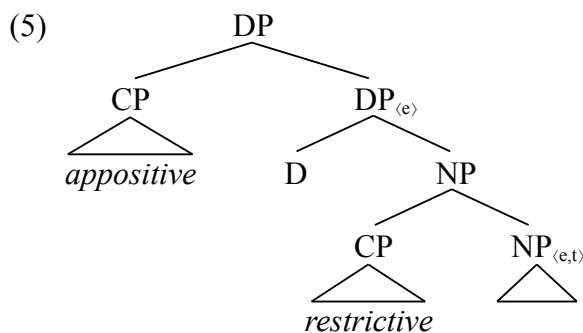
we'll find that other so-called features of appositives—their intonation, their position within DP, and their ability to attach to non-nominal anchors—do not reliably correlate with either semantic appositivity, or the host of properties that accompany it. This second class of features may be successful in diagnosing English appositive syntax, but fails to diagnose appositivity cross-linguistically.

The question of whether Mandarin has or lacks appositives is a particularly salient issue, in that recent proposals by Potts (2005: 106–107, 136–138) and De Vries (2006: 263–266) aim to account for a presumed lack of prenominal appositives cross-linguistically. In De Vries' case, the Mandarin facts as presented by Del Gobbo are taken as one piece of evidence for this universal ban, which is hoped to fall out from a general syntactic theory of appositive relativization. Thus, if Mandarin in fact possesses prenominal appositive relative clauses, the explanations of why these should never occur need to be reconsidered. In section §3, I provide a brief critique of these explanations, and also argue against an alternative analysis of the Mandarin facts considered by De Vries (2006: 265–266), on which seeming appositive relative clauses are actually free relatives followed by a nominal apposition.

Finally, section §4 returns to the issue of the two relative clause positions and what controls the choice of one over the other. I leave this question open, but point to a few factors that must play a role in any analysis: the appositivity of the clause, the presence of contrastive focus, and the presence of ordinals.

## 1.2 Challenges for Chao (1968)

Chao's classic analysis of Mandarin relative clause position is problematic for a number of reasons. First, it is hard to reconcile the Mandarin ordering facts with any standard view of the syntax of restrictive vs. appositive clauses. On one common view, restrictive relatives, as property-modifiers, adjoin to NP, whereas appositives directly modify an entity-denoting DP, as in (5). If this view is correct, it is mysterious why in Mandarin an appositive relative would appear *closer* to the noun than the restrictive version.



Second, and more importantly, Del Gobbo (2003, 2005) and Lin (2003: 203–207) present a number of convincing cases in which, counter to Chao's expectations, a relative clause in the so-called "descriptive" RC<sub>2</sub> position must be interpreted as restrictive. Two such examples are shown below. In (6a)<sup>6</sup>, the DP containing the relative clause is headed by a quantificational expression, and so the relative clause must be restrictive, by Ross' (1967) diagnostic in (7). In (6b), the relative clause

<sup>6</sup> My consultants find the RC<sub>1</sub> option preferable in (6a), but accept RC<sub>2</sub> as well.

contains a pronoun bound by a quantifier outside the clause, indicating again that the clause is restrictive, this time by Safir’s (1986) diagnostic in (8).

(6) Restrictive “Descriptives”

- a. měi gè [ dàifu kàn de ]<sub>CP</sub> xiǎoháir dōu dé-dào-le yī gè tángguǒ.  
 each CL doctor see DE kid DISTR obtain-reach-PERF one CL candy  
 ‘Every kid that the doctor saw got a candy<sup>7</sup>.’ (Del Gobbo 2003: ex. 23a)
- b. měi gè xuéshēng<sub>i</sub> dōu yuànliàng-le nèi xiē [ céngjīng shānghài-guò tāmen<sub>i</sub> ]<sub>CP</sub>  
 each CL student DISTR forgive-PERF that few previous hurt-EXP them  
 de rén.  
 DE person  
 ‘Every student forgave those who had harmed them<sup>8</sup>.’ (Del Gobbo 2005: ex. 4)

(7) Restrictive can have Quantifier Head, Non-Restrictive can’t (Ross 1967)

- a. Every student that wears socks is a swinger.  
 b. #Every student, who wears socks, is a swinger.

(8) Quantifier can Bind Pronoun in Restrictive, but not Non-Restrictive (Safir 1986)

- a. [ Every Christian ]<sub>i</sub> forgives a man who harms him<sub>i</sub>.  
 b. #[ Every Christian ]<sub>i</sub> forgives John, who harms him<sub>i</sub>.

Having demonstrated that being in RC<sub>2</sub> position fails to correlate robustly with non-restrictiveness, Del Gobbo reopens the question of what controls Mandarin relative clause position. Her first claim is that restrictiveness is *never* a factor influencing position—that Mandarin relative clauses are always restrictive<sup>9</sup> in their syntax and semantics. To account for Chao’s judgments and a range of ordering facts, Del Gobbo (2005) argues that the positional contrast is tied to the distinction between individual-level and stage-level modifiers<sup>10</sup>.

While it is clear that restrictiveness cannot be the *only* factor in determining Mandarin relative clause placement, and while the i-level vs. s-level distinction may have a role to play, it is not the case that Mandarin lacks appositive relative clauses. However there is a challenge in diagnosing them. Unlike English appositives, those in Mandarin are not privileged with a syntactic position of their own. Thus,

7 I’ve added tones to this and following examples from Del Gobbo. Additionally, some examples have been minimally re-glossed or re-translated.

8 I’ve added perfective *le* to Del Gobbo’s original example, as my consultants found this example more natural. Additionally, I’ve changed the translation of the embedded pronoun to *them*, to reflect the fact that the Chinese example is ambiguous as to whether the hurting was done to the students collectively, or distributively. My consultants report the singular pronoun (*tā*) would be impossible here, as Lin (2003: 219 ff.9) reports for similar examples. In fact, this raises the question of whether the pronoun is bound at all.

9 In more recent work, Del Gobbo (2005, et seq.) refers to some Mandarin relative clauses as “appositive”, but maintains that these are unlike English appositives in important ways—for example being transparent to binding, and resisting root-level adverbs. I call a number of these differences into question in section §2.

10 Specially, Del Gobbo’s claim is that RC<sub>1</sub> hosts only s-level modifiers, where RC<sub>2</sub> can host s- or i-level, but if both occur, all s-level modifiers must be leftward of all i-level modifiers.

the first step to solving Chao's (1968) puzzle is dropping the assumption of any strict implicational relation between relative clause appositivity and syntactic position. In fact, not only can appositives surface as RC<sub>2</sub> (and we will see that this is their default position), but in a highly circumscribed set of cases, RC<sub>1</sub> can also be appositive.

The sentences below preview examples of appositive RC<sub>1</sub> and RC<sub>2</sub>. These examples appear in the Penn Chinese Treebank (Xue et al. 2005), and are taken from recent news articles written for mainland China's official press agency (*Xīnhuá*).

(9) Appositive RC<sub>1</sub>

[ [ yìwài chūshēng de ]<sub>CP</sub> dì liù gè nán-yīng ]<sub>DP</sub> ràng yīshēng-men  
 unexpected be.born DE ORD six CL boy-infant make doctor-PL  
 zuì wéi fāngxīn.<sup>11</sup>  
 most be at.ease

'[ The sixth baby (boy), [ whose birth was unexpected ]<sub>CP</sub> ]<sub>DP</sub>, gave doctors the least trouble.'

(10) Appositive RC<sub>2</sub>

[ zhèi gè [ yóu àomén yuǎn-dōng (tàiguó) jítuán gōngsī yú hǎinán-shěng  
 this CL by Macao far-East Thailand group company and Hainan-province  
 liáng-yóu jítuán gōngsī děng liánhé tóuzī sānqiānwàn měiyuán xīngjiàn de ]<sub>CP</sub>  
 grain-oil group company etcetera join invest 30M dollar construct DE  
 jīng-mǐ jiāgōng chǎng ]<sub>DP</sub> ...  
 refine-rice process plant

'[ This polished rice processing plant, [ which was constructed as a \$30M joint venture between Macao's Far East Group, the Hainan Province Grain Oil Group, and others ]<sub>CP</sub> ]<sub>DP</sub> adopts the most advanced 90's era foreign manufacturing facilities and industrial processing to process 300,000 tons of coarse rice annually, and 70% of the resulting polished rice is exported.'

Since RC<sub>2</sub> appears to be the default position for appositives, as Chao would predict, the main task before us will be demonstrating conclusively that RC<sub>2</sub> can be appositive. I take this task on in the following section.

## 2. Diagnosing Mandarin Appositivity

This section re-examines the claim put forth by both Del Gobbo (2001, 2002, 2003, 2005) and Zhang (2001), and taken up by Lin (2003)<sup>12</sup>, Aoun and Li (2003: 152, §5.4 ff. 23), De Vries (2006: 265),

11 One benefit to looking at examples from the Penn Chinese Treebank is that the entire context of the news article is easily accessible. For example, in (9) it can be verified that there being an unexpected birth is new information at this point in the article, whereas it is already given that there are six births (sextuplets), and there is already a convention in place of referring to the sextuplets by their order of birth. This evidence is crucial in ruling out other potential interpretations—such as [ The one whose birth was unexpected, (namely) the sixth baby boy ]<sub>DP</sub>—which we would otherwise expect to be available.

12 While Lin (2003) rejects the strongest claim that Mandarin lacks any non-restrictive relative clause, he still stands by

Huang, Li and Li (2009: 215–217) and Loock (2010: 43) that Mandarin Chinese lacks appositive relative clauses. Specifically, I aim to show that Mandarin has relative clauses in RC<sub>2</sub> that are doing semantically precisely what English appositive relative clauses do, and pass all relevant syntactic and semantic tests for appositivity. Doing so requires taking stock of various conceptions of appositivity, and evaluating which underlying distinctions are diagnosed by different appositivity tests.

## 2.1 What is Appositivity?

I will use the term “apposition” to refer generally to any phrase that occurs together with a second phrase—the “anchor”—and has the function of adding supplementary information, either defining or elaborating on the content of that anchor. This broad sense of apposition includes at least the following bolded elements:

### (11) Appositions

- a. [ my brother, **a doctor** ]<sub>DP</sub>
- b. [ my brother, **who is a doctor** ]<sub>DP</sub>

While the appositions above both have the quality of being “appositive”, this latter term is often used as a shorthand for “non-restrictive relative clause”, singling out examples like (11b) from the wider class of appositions. This characterizes the way the term is used by Emonds (1979) and many authors following<sup>13</sup>, and I carry on this tradition here.

Over the last forty years, there has been an ongoing debate over the properties of appositives, focusing in particular on whether they have the features of root or embedded clauses (see De Vries 2006: 233 for a summary). However, somewhat surprisingly, for the most part, this literature does not attempt to define in detail what it takes to count as an appositive, perhaps since English appositive clauses are so readily identifiable in terms of their prosody.

As we turn to appositives in other languages, one temptation has been to define “appositive” in terms of all the properties of English appositive relative clauses, taking comma intonation as the means by which we confirm the viability of other tests. However given variation across languages in both the syntax of relativization and the prosody-syntax interface (see e.g. Selkirk 2009 on the latter), we don’t want to define appositivity in terms of language-specific properties like prosody or syntactic position. For example, we wouldn’t want a diagnostic for appositive relative clauses to presuppose that they are post-nominal, or that they are demarcated by comma intonation. Note that if we held on to diagnostics of this sort, Mandarin would trivially lack appositives, since its relative clauses are strictly pre-nominal and are not isolated prosodically (Lin 2003: ff. 1, 219).

But if we are willing to throw away these language-specific notions, and pare down to a core sense of appositivity, it raises the question: which properties of English appositives are English-specific and

---

Del Gobbo’s general finding. On Lin’s account, non-restrictive relatives are impossible in RC<sub>1</sub> and RC<sub>2</sub> and can only appear modifying proper names and pronouns.

13 Potts (2003) uses “integrated appositive” to refer to the *John* in [my friend John], and separates these from the “nominal apposition” of (11a).

which are worthy of elevating to a definitional status?

The term “non-restrictive” suggests a semantic definition, and of the potential appositivity diagnostics, a subset stands out as plausibly deriving from a core semantic contrast between restrictives and appositives. In what follows, I will give weight to a particular notion of appositivity developed by Potts (2003). Following Potts, appositives are not relative clauses with a distinguished syntax or prosody, but rather relative clauses that contribute supplementing meaning. Specifically, appositives do not affect the at-issue entailed meaning of the sentence they embed in. Instead, they contribute speaker-oriented “conventional implicature” (CI) meaning along a separate dimension.

As we investigate the features of Mandarin relative clauses, we will see that a core set of properties emerges that hold of precisely the clauses that match the fundamentally semantic definition above. These properties, including opacity to binding, ability to host root-level adverbs, and others, are true appositivity diagnostics. A second set of properties appears to correlate with appositivity in English, but fails to do so in Mandarin. These include the clause’s position within DP, and its ability to attach to non-nominal anchors. In what follows, I argue that these properties do not derive from any basic notion of appositivity, and depend rather on language-specific facts about the syntax of relativization and the availability of movement operations that target relative clauses. Thus, we should not approach a language with any expectation that these tests will distinguish restrictive from non-restrictive clauses.

## **2.2 Del Gobbo’s (2003, 2005) Diagnostics**

Del Gobbo (2003, 2005) promotes ten specific observations<sup>14</sup> about English relative clause appositivity to the status of “diagnostic”, and proceeds to apply them to Mandarin test cases. These ten observations are given in (12). In this section, I argue that each of these potential diagnostics is either (a) inapplicable to Mandarin, (b) not a desirable cross-linguistic diagnostic for appositivity, or (c) yields the result that Mandarin *has* appositives. Since seven of the ten diagnostics fall in the categories (a) and (b), I provide a few more diagnostics of type (c) in section §2.6.

---

<sup>14</sup> I ignore the VP and NP ellipsis tests discussed in Del Gobbo (2004) for reasons of space, and because the judgments the tests rely on are relatively subtle in English, compared to the other tests.

(12) Del Gobbo's (2003, 2005) Diagnostics

- a. A quantified NP can't be the antecedent of an appositive. (Ross 1967)
  - b. A pronoun in an appositive can't be bound by a quantifier from outside. (Safir 1986)
  - c. A phrase modified by an appositive can't be in the scope of negation. (Sells 1985a, Demirdache 1991)
  - d. Restrictives can stack, appositives can't. (McCawley 1998)
  - e. Restrictive meaning is presupposed, appositive meaning isn't<sup>15</sup>. (Chierchia and McConnell-Ginet, 1990)
  - f. Appositives appear DP-finally, following all restrictive modifiers. (Jackendoff 1977: 171)
  - g. Appositives can contain root-level adverbs like *frankly*, restrictives can't. (Milner 1973, Ogle 1974, Emonds 1979)
  - h. Appositives can qualify unmodified proper names, restrictives usually can't.
  - i. Appositives allow pied-piping of complex Wh- DP, restrictives don't. (Emonds 1979: 224)
  - j. The antecedent of an appositive can be a maximal projection of any category. (Jackendoff 1977, Sells 1985a)
- } Appositive Defeating  
 } Restrictive Defeating

To begin, it will be useful to distinguish two types of diagnostic. The first type, which covers (12a–d), we can call *appositive-defeating*. These provide diagnostic contexts where appositives are ruled out. The second class of diagnostics, including (12g–j), are *restrictive-defeating* in that they provide a context where restrictives are ruled out. The middle diagnostics (12ef) are two-sided tests that provide both an appositive-defeating and a restrictive-defeating context.

### 2.3 The Problem with Appositive-Defeating Diagnostics

Example (6) showed just two of a range of compelling examples from Del Gobbo (2003, 2005) which indicate that in Mandarin, not only RC<sub>1</sub> but also RC<sub>2</sub> can be restrictive. However, if this is the case, then we have to conclude that purely appositive-defeating diagnostics are incapable of shedding light on whether Mandarin has or lacks appositives!

Let's look at a specific diagnostic to illustrate the general problem. According to diagnostic (12a), an appositive relative clause cannot have a quantified NP as its antecedent. If this test is valid<sup>16</sup>, then it proves that the relative clause in (13), repeated from (6a) above, is not appositive. However this particular clause being restrictive leaves entirely open the question of whether an appositive could appear in the same syntactic position (say, in a sentence without the quantifier).

15 Chierchia and McConnell-Ginet's (1990: 351) point concerned only appositives. I include here as well Del Gobbo's (2005) extension of the test to have a restrictive-defeating edge.

16 In the appendix, I suggest that this diagnostic does not work reliably even in English.



(13) Restrictive RC<sub>2</sub>

měi gè [ dàifu kàn de ]<sub>CP</sub> xiǎoháir dōu dé-dào-le yī gè tángguǒ.  
 each CL doctor see DE kid DISTR get-reach-PERF one CL candy  
 ‘Every kid that the doctor saw got a candy.’ (Del Gobbo 2003: ex. 23a)

For this reason, and counter to Del Gobbo’s (2003, 2004, 2005) claims, none of the diagnostics (12a–d) show, or even have the potential to show, that Mandarin lacks appositives<sup>17</sup>. For other challenges with running these particular diagnostics, even in English, see the appendix.

The remaining six diagnostics, (12e–j) are addressed in detail in the following two sections. I present the good news first in section §2.4—three diagnostics that succeed in demonstrating the existence of Mandarin appositives. Section §2.5 takes on the bad news—two diagnostics that, following Del Gobbo, seem to indicate a lack of appositives. I argue that these tests can’t be robust cross-linguistic diagnostics of appositivity. Finally, in §2.6, I discuss two more semantic tests that can be used successfully in Mandarin.

## 2.4 Successful Restrictive-Defeating Diagnostics

### 2.4.1 *The Presupposed Meaning Test*

Diagnostic (12e) is a double-edged sword, since it specifies two contexts, as in (14)—one that rules out restrictives and one that rules out appositives. As it turns out, neither of these edges is as sharp as one would like, as I show in the appendix. Still, to the degree that this diagnostic does work, it indicates the presence, rather than absence of appositives in Mandarin.

(14) Restrictives are Presupposed, Appositives are not

- a. In a context that presupposes *p*, a restrictive can contribute the content of *p*, but an appositive can’t. (cf. Potts’ (2005: 43, 112) “anti-backgrounding<sup>18</sup>”)
- b. In a context that does not presuppose *p*, an appositive can contribute the content of *p*, but a restrictive can’t.

As with diagnostics (12a–d), we will not be overly concerned with (14a) here, since it can tell us nothing about whether Mandarin has appositives or not<sup>19</sup>. Diagnostic (14b), then, is the first of six restrictive-defeating diagnostics that have the potential to expose Mandarin’s lack of appositives. In the canonical case, diagnostic (14b) separates examples like the English appositive in (15a) from the restrictive in (15b). Specifically, since the context doesn’t presuppose that any woman hadn’t slept on the previous flight, the restrictive containing this content is infelicitous.

17 It may be possible to salvage Safir’s binding test (12b) by using other means of eliminating the restrictive reading—for example substituting a proper name or pronoun as the relative clause anchor. For further discussion see §2.4.3.

18 Note that Potts’ (2003: 148) use of the term “backgrounding” is different than that of Chierchia and McConnell-Ginet (1990: 351). For Potts, backgrounded content refers narrowly to presupposed content. For Chierchia and McConnell-Ginet, appositive content is also backgrounded in the sense that it is not the primary part of the main assertion.

19 It is worth mentioning in passing, though, that contra several claims in the literature (e.g. Chierchia and McConnell-Ginet 1990: 351–352, Potts 2003: 148–149), appositives can’t be said to categorically resist backgrounding (in Potts’ sense, see my footnote 18). See the appendix for details.

(15) Appositives add New Information, Restrictives don't

Context: I met an interesting couple flying from Ithaca to New York last week.

- a. The woman, who hadn't slept on the previous flight, was bleary-eyed, but still had some fascinating stories to tell.
- b. #The woman that hadn't slept on the previous flight was bleary-eyed, but still had some fascinating stories to tell.

Del Gobbo's (2003: 93) reference point for running diagnostic (14b) is the following pair, adapted from Chierchia and McConnell-Ginet (1990: 351). While I submit that the use of *that woman* in (16a) is somewhat awkward, and the appositive feels forced, the relative judgment is still clear.

(16) Context: Let me tell you something about Jill Jensen, a woman I met while flying from Ithaca to New York last week.

- a. That woman, who lost her bag on the flight from Ithaca to NY, likes to travel by train.
- b. #The woman that lost her bag on the flight from Ithaca to NY likes to travel by train.

However, when we turn to Del Gobbo's application of the same diagnostic to Chinese, the minor problem is exacerbated. In the Chinese version, the introductory context is rendered as in (17) and the crucial test case is in (18):

(17) Del Gobbo's Context for Diagnostic (14b)

ràng wǒ gào su nǐ guānyú xiǎo-yú de yīxiē shì. wǒ shàng zhōu zài cóng běijīng  
 let me tell you about little-Yu DE a.few thing I last week at from Beijing  
 dào niǔyuē de lùtú zhōng pèng-jian tā.  
 to New.York DE road middle bump-appear her

(Del Gobbo 2003: ex. 118)

Del Gobbo's paraphrase: 'Let me tell you something about Xiao Yu, a woman I met while flying from Beijing to New York last week.'

(18) Del Gobbo's Test Case for Diagnostic (14b)

nèi gè [ zài cóng běijīng dào niǔyuē de lùtú zhōng diū-le xíngli de ]<sub>CP</sub>  
 that CL at from Beijing to New.York DE road middle lose-PERF luggage DE  
 nǚrén xǐhuan zuò huǒche.  
 woman like take train

'That woman who lost her luggage on the flight from Beijing to NY likes to travel by train.'

Judgment: ??(17+18) — (18) is infelicitous in the context of (17).

(Del Gobbo 2003: ex. 117a, Del Gobbo 2005: ex. 13a)

Based on Del Gobbo's paraphrase of (17), we would expect the utterance of (17+18) to be no worse than the mildly awkward English (16a). However, the Chinese context is formed out of two separate sentences, and comes closer to the English context given in (19). If we test this corrected paraphrase as a context in English, we find the subsequent use of an appositive degraded:

(19) Context: Let me tell you something about Xiao Yu. I ran into her last week on the way from Beijing to New York.

??That woman, who lost her bag on the flight from Beijing to NY, likes to travel by train.

This context differs from the one in (16) in that we have a complete sentence which refers to an individual by name, without specifying who they are. This use seems in either English or Chinese to presuppose that the named individual is already established as an identifiable entity in the discourse. Thus, it's quite strange to refer back to this individual as *that woman*, rather than *Jill*, or *she*.

Furthermore, if we replace *that woman* with *Jill* or *she* in (19), the appositive does not improve, and in fact becomes even more unnatural than (16a). I do not have a full account of this infelicity here, but merely note that it holds in Mandarin as well. That is, if we replace *nèi gè nǚrén* 'that woman' in (18) with either *tā* 'she' or a proper name, the resulting (17+18) does not improve.

By contrast, if we start from the relatively natural English appositive in (15), the corresponding Mandarin translation improves dramatically. In the context of (20), the relative clause in (21) is judged as if not completely natural, at the very least acceptable<sup>20</sup>.

(20) Improved Context for Diagnostic (14b)

wǒ shàng gè xīngqī cóng běijīng fēi niǚyuē de lù shàng rènshi-le yī duì  
I last CL week from Beijing fly New.York DE road on meet-PERF one pair  
hǎowánr de fū-fù.  
fun DE husband-wife  
'I met an interesting couple flying from Beijing to New York last week.'

(21) Improved Test Case for Diagnostic (14b)

nèi gè [ zài qián yī bān jī shàng méi shuìjiào de ]<sub>CP</sub> nǚrén  
that CL on previous one CL plane on have.not sleep DE woman  
yǎnjīng tōnghóng, dànshì hái jiǎng-le bù-shǎo gùshi.  
eye very.red but still tell-PERF not-few story  
'The woman, who hadn't slept on the previous flight, was bleary-eyed, but still told a lot of stories.'

Thus, to the degree that the following conditions hold, (20+21) demonstrates the existence of Mandarin appositives:

- (22) a. (20+21) is acceptable.  
b. The content of the relative clause in (20) can't be accommodated as a presupposition.  
c. Diagnostic (14b) robustly rules out restrictive relative clauses.

<sup>20</sup> One consultant offered that the example sounds too planned out in advance, and is less colloquial than the counterpart where the content of the relative clause is promoted to the main clause, as in 'The woman hadn't slept on the previous flight, and was bleary-eyed, but still told a lot of stories.' By comparison, this option is also preferable in English.

As further support for the present account, observe that understanding the relative clause in (21) as appositive makes distinct predictions from those Del Gobbo would make about the difference between (21) and (23), identical except for the position of the relative clause. If Del Gobbo is correct that all Mandarin relative clauses are restrictive, then we expect (21) and (23) to both be problematic in the context of (20), since they both violate the presupposition test. In fact, the only difference we would expect to find on Del Gobbo's (2005) account between (20+21) and (20+23) stems from the claim that  $RC_1$  is reserved for modifiers that denote s-level properties where  $RC_2$  accepts either s-level or i-level modifiers. Yet since [hadn't slept on the previous flight] is not a generic, individual-level property, again, Del Gobbo's account will not distinguish between the two positions.

(23)  $RC_1$  version of (21)

[ zài qián yī bān jī shàng méi shuìjiào de ]<sub>CP</sub> nèi gè nǚrén  
 on previous one CL plane on have.not sleep DE that CL woman  
 yǎnjīng tōnghóng, dànshì hái jiǎng-le bù-shǎo gùshi.  
 eye very.red but still tell-PERF not-few story

'The woman that hadn't slept on the previous flight was bleary-eyed, but still told a lot of stories.'

Judgment: #(20+23) — (23) is infelicitous in the context of (20).

In sum, if the clause in (21) is appositive, and if Chao (1968) is essentially correct that  $RC_1$  is reserved for restrictive modifiers, then we predict straightforwardly that (20+21) will be acceptable, while (20+23) will not. On Del Gobbo's account, however, we are led to expect (20+21) and (20+23) to both be unacceptable, and in fact *equally* unacceptable, unless a further stipulation is made. We saw above that (20+21) is by and large accepted by speakers. But regardless of the degree to which (20+21) is accepted, it is unanimous across the speakers I have polled that (20+21) is superior to (20+23). This has a clear explanation if the relative clauses involved are appositive (as the presupposition test tells us they must be), and if  $RC_2$  can host appositives while  $RC_1$  cannot. The only outstanding piece of data that remains to be captured is that in a narrow set of circumstances,  $RC_1$  can in fact be appositive. However, we will see in section §4 that the availability of appositive  $RC_1$  depends on the presence of an ordinal or other specific licensors, and thus does not extend to cases like (23).

To conclude our investigation of the presupposition test, I present the following elicited examples as additional support for the claim that Mandarin relative clauses *can* introduce non-presupposed, supplementing material:

- (24) zhèi wèi gāng cóng rìběn huí-lái de lǎoshi yào gěi wǒmen jiǎng jīngjì.  
 this CL just from Japan back-come DE teacher will for us speak economy  
 'This teacher, who has just returned from Japan, will be speaking to us on economics.'

(25) nèi tiān wǎnshàng [ xiǎnrán yǐjīng yǒu-le bù-hǎo de yùgǎn de ]<sub>CP</sub>  
 that day evening clearly already have-ASP not-good DE premonition DE  
 zhāng tàitai gàosu wǒ zhāngsān gūjì huó-bu-liǎo jǐ tiān.  
 Zhang Mrs. tell me Zhangsan probably live-not-complete few day  
 ‘That evening, Mrs. Zhang, who had obviously already had a bad premonition, told me that  
 Zhangsan probably wouldn’t live more than a few days.’

(26) dàxué dú shùxué de lǎolao qíshí hěn xǐhuan wénxué.  
 university read math DE maternal.grandma actually very like literature  
 ‘My (maternal) grandmother, who studied math in university, actually liked literature.’

(27) jīntiān wǒmen yào tāolùn bèiduōfēn.  
 today we will discuss Beethoven  
 zhèi wèi [ bìshēng jǐn yǒu jiǔ zhāng jiāoxiǎngyuè wènshì de ]<sub>CP</sub> zuòqǔjiā ...  
 this CL lifetime only have nine CL symphony come.out DE composer  
 ‘Today we’ll be discussing Beethoven. This composer, who only wrote nine symphonies in his  
 life, always struggled to make a living.’

Example (24) is judged as fine in a context where there is only one teacher present, and the information that s/he has just returned from Japan is new. One such context would be an introduction of a guest lecturer to an audience. Similarly, in (25) the fact that Mrs. Zhang had had a bad premonition is not presupposed. In (26), the information that my grandma studied math may be known to the listeners (e.g. at a memorial service), but is presented as a reminder, as we often see with English appositives. Finally, (27) does not presume any familiarity with the fact that Beethoven only wrote nine symphonies. Furthermore, in none of these cases is the relative clause content used to restrict the referent of the DP. They are all strictly supplementing.

#### 2.4.2 The Root-Level Adverb Test

Our second restrictive-defeating diagnostic, this time a single-edged test, is illustrated in (28). The appositive relative in (28a) can host the root-level adverb *frankly*, while the restrictive clause in (28b) can’t.

- (28) Restrictives Resist Root-Level Adverbs like *frankly*  
 a. The boys, who have frankly lost their case, should give up.  
 b. The boys that have (#frankly) lost their case should give up.  
 Emonds 1979: 239, ex. 64.

Del Gobbo (2003: 53–54, 2005: ex. 6) finds that Mandarin root-level adverbs like *shùnbìànshuō* ‘incidentally’ can’t occur in either RC<sub>1</sub> or RC<sub>2</sub> position, and again takes this to indicate that Mandarin lacks appositive relatives<sup>21</sup>:

<sup>21</sup> I note that (29b) is acceptable with the unintended meaning of ‘By the way, the boys who failed the exam transferred to another school.’ In this case, the adverb attaches to the root clause.

(29) Del Gobbo's Test Case for Diagnostic (28)

- a. #nèi xiē [ shùnbìànshuō kǎoshì shībài de ]<sub>CP</sub> nánhái r zhuǎn dào língwài  
 that few incidentally test fail DE boy transfer to other  
 yī suǒ dàxué qù le.  
 a CL university go PRT
- b. # [ shùnbìànshuō kǎoshì shībài de ]<sub>CP</sub> nèi xiē nánhái r ... (as above)  
 incidentally test fail DE that few boy

Both (a,b) intend 'Those boys, who failed the exam by the way, transferred to another school.'  
 Del Gobbo 2005: ex. 6.

The problem with this instantiation of the root-level adverb diagnostic is that Mandarin *shùnbìànshuō* 'incidentally', quite apart from its (in)ability to appear in relative clauses, just doesn't behave like English *frankly* or *incidentally*. Literally, *shùnbìànshuō* means 'to say in passing' and it patterns more closely with English interjections like 'by the way' than with true adverbs, specifically with respect to whether the expression can be prosodically integrated with its host environment. The contrast between English adverbs and interjections is illustrated in (30). Other English interjections in this integration-resisting class are 'as a matter of fact', 'as it happens', 'in a manner of speaking', 'truth by told', and 'speaking bluntly'. Example (31) shows that *shùnbìànshuō* is in fact even more restricted than English interjections, strongly preferring to be both prosodically isolated and utterance-initial, and in particular resisting even embedded parenthetical uses like (31c).

- (30) a. { Incidentally / By the way }, they don't mean much to me.  
 b. They { incidentally / ??by the way } don't mean much to me.  
 c. They, { incidentally / by the way }, don't mean much to me.

- (31) a. shùnbìànshuō, tā bù ài chī niúròu.  
 by.the.way he not love eat beef
- b. ??tā shùnbìànshuō bù ài chī niúròu.  
 he by.the.way not love eat beef
- c. ??tā, shùnbìànshuō, bù ài chī niúròu.  
 he by.the.way not love eat beef  
 'By the way, he doesn't like to eat beef.'

Given this limited distribution, it's not surprising that *shùnbìànshuō* fails to appear in relative clauses, even appositive ones. Recall that Mandarin relative clauses, if they are appositive, are not set apart prosodically like their English counterparts (see, e.g. Lin 2003: 219), so would plausibly not satisfy the prosodic needs of *shùnbìànshuō* to be isolated utterance-initially<sup>22</sup>.

22 Also, see Lin (2003: 224–225) for a related argument against Del Gobbo's (2001) earlier use of a different "adverb" *tānbáidishuō* 'frankly' as a diagnostic for appositivity. Once again, we could question whether it is right to call this phrasal interjection an adverb in the first place. A translation that is both more transparent and comes closer in its use conditions would be 'to tell the truth'.

Two Mandarin adverbs with the desired root-level profile are *gūjì* ‘reckon<sup>23</sup>’ and *bāchéng* ‘80 percent’. As (32) shows, these adverbs tend to be prosodically integrated with a clause, and can follow a subject. In this sense, these adverbs pattern more closely with English root-level adverbs like *frankly*.

- (32) a. { *gūjì* | *bāchéng* } *tā* *bù* *huì* *xǐhuan* *wǒ*.  
           reckon 80.percent he not will like me
- b. *tā* { *gūjì* | *bāchéng* } *bù* *huì* *xǐhuan* *wǒ*.  
           he reckon 80.percent not will like me
- c. ??*tā*, { *gūjì* | *bāchéng* } , *bù* *huì* *xǐhuan* *wǒ*.  
           he reckon 80.percent not will like me  
           ‘I reckon he won’t like me.’

Furthermore, like English *frankly*, these adverbs seem to generally<sup>24</sup> resist semantic embedding, and are in this regard unlike English *probably*:

- (33) Most people thought that John { #*frankly* | *probably* } wouldn’t come.

- (34) *dàbùfēn* *de* *rén* *yǐwéi* *zhāngsān* { #*gūjì* | #*bāchéng* } *bù* *huì* *lái*.  
       most DE person think.wrongly Zhangsan reckon 80.percent not will come  
       ‘Most people thought that Zhangsan wouldn’t come.’

Intended: ‘Most people thought that Zhangsan probably wouldn’t come.’

If *gūjì* and *bāchéng* pattern with *frankly*, we make two predictions about their distribution in relative clauses. First, we predict that in any context where either a restrictive or appositive interpretation of a relative clause is available, inserting one of these adverbs will disambiguate toward the appositive reading. Secondly, we predict that any context where a relative clause must be interpreted restrictively will be a context where these adverbs cannot be felicitously added to the relative. These predictions are confirmed in (35) and (36)<sup>25</sup> respectively.

23 I note that *gūjì* can also be used as a predicate ‘to reckon’ that can take a clausal complement. Thus (32b) has another reading: ‘He reckons that X won’t like me,’ where the culprit X is contextually implied. However, without any supporting context for this example, only the speaker-oriented adverbial reading of *gūjì* is plausible.

24 There are some exceptions to this claim, both for the Mandarin and the English adverbs. For example, some speakers accept the embedded use of *bāchéng* ‘80 percent’ in (i). For discussion of embedded examples of *frankly*, see the appendix.

(i) *dàbùfēn* *de* *rén* *rènwéi* *zhāngsān* *bāchéng* *bù* *huì* *lái*.  
       most DE person believe Zhangsan 80.percent not will come  
       ‘Most of them believed that Zhangsan most likely would not come.’

25 Given the ambiguity of *gūjì* discussed in footnote 23, it is unsurprising that (36b) is felicitous on another reading: ‘The students that think they won’t pass should put in more effort.’ On this reading, there is no incompatibility between *gūjì* and restrictivity.

(35) Root-Level Adverbs in RC<sub>2</sub> Disambiguate to Appositive Reading

- a. nèi xiē [ kǎoshì huì bù jígé de ]<sub>CP</sub> xuéshēng yīnggāi gèng nǚlì yī diǎnr.  
 that few test will not pass DE student should more make.effort a little  
 (i) ‘The students that won’t pass the test should put in more effort.’  
 (ii) ‘Those students, who won’t pass the test, should put in more effort.’
- b. nèi xiē [ { gūjì | bāchéng } kǎoshì huì bù jígé de ]<sub>CP</sub> xuéshēng  
 that few reckon 80.percent test will not pass DE student  
 yīnggāi gèng nǚlì yī diǎnr.  
 should more make.effort a little  
 ‘Those students, who I reckon won’t pass the test, should put in more effort.’  
 ≠ ‘The students that I reckon won’t pass the test should put in more effort.’

(36) Root-Level Adverbs are Impossible in Restrictive RC<sub>1</sub>

- a. [ kǎoshì huì bù jígé de ]<sub>CP</sub> nèi xiē xuéshēng yīnggāi gèng nǚlì yī diǎnr.  
 test will not pass DE that few student should more make.effort a little  
 ‘The students that won’t pass the test should put in more effort.’  
 ≠ ‘Those students, who won’t pass the test, should put in more effort.’
- b. # [ { gūjì | bāchéng } kǎoshì huì bù jígé de ]<sub>CP</sub> nèi xiē xuéshēng  
 reckon 80.percent test will not pass DE that few student  
 yīnggāi gèng nǚlì yī diǎnr.  
 should more make.effort a little  
 Intended #1: ‘The students that I reckon won’t pass the test should put in more effort.’  
 Intended #2: ‘Those students, who I reckon won’t pass the test, should put in more effort.’

In (36), an appositive is not supported in the RC<sub>1</sub> position, so the addition of speaker-oriented adverbs results in infelicity. Recall that while appositives *are* possible in RC<sub>1</sub> position, as we saw in the introduction, their distribution is highly restricted, and seems to depend on the presence of an ordinal or other specific licenser (see §4). Thus, in a typical case like (36a), RC<sub>1</sub> can receive only a restrictive reading, as Chao would predict.

All in all, allowing the option for RC<sub>2</sub> to be appositive provides a succinct explanation for why (35) is ambiguous, why root adverbs disambiguate, and why (36) differs in this regard. On the other hand, maintaining that Mandarin systematically lacks appositives predicts that root adverbs will never embed, and leaves us unable to explain the paradigm above.

### 2.4.3 *Modifying Names and Other Singletons*

In general, we find that only non-restrictive modifiers can modify a proper name, unless the name is interpreted as property-denoting, as in (38):



(37) Restrictives Can't Modify Referring (entity-denoting) Names

- a. Einstein, who had early speech difficulties, was already a top student by elementary school.
- b. \*Einstein that had early speech difficulties was already a top student by elementary school.

(38) Restrictives Can Modify Property-Denoting Names

(The) John that I *like* works at the library, and (the) John that I *don't* like works at the zoo.

One obvious challenge for the claim that Mandarin lacks appositives is the occurrence of relative clauses modifying individual-denoting proper names and pronouns, as in (39) from Lin (2003: 221). In this section, I focus on proper name anchors, although with Lin (2003: 234) and Del Gobbo (2003: 88–89), I believe the facts with pronouns are largely the same, though see §3.2 for one systematic difference.

- (39) shuō yě qíguài, [ bù ài chī niúpái de ]<sub>CP</sub> zhāngsān  
 say also strange not love eat steak DE Zhangsan  
 jīngrán yě diǎn-le niúpái.  
 surprisingly also order-PERF steak

‘Strangely enough, Zhangsan, who doesn’t like eating steak, actually ordered a steak too.’

Examples like (39) have led authors like Jo-wang Lin (2003), who otherwise accept the claim that Mandarin lacks appositives, to make an exception for proper names. Specifically, Lin (2003: 236) states that a Mandarin relative clause can be non-restrictive just in case it modifies a pronoun or proper name and denotes a permanent property; all other relatives are restrictive.

On the other hand, Del Gobbo (2003) maintains that even relative clauses like the one in (39) are actually restrictive. This claim is defended via two fundamentally different lines of reasoning, which I will address in turn. The first of Del Gobbo’s (2003: 88–97) arguments is that relatives anchoring to proper names show a variety of properties of restrictive relatives—for example allowing pronouns or the long-distance anaphor *zìjǐ* to be bound from outside the clause. However, the relevant examples are crucially interpreted with the anchor as *property-denoting*. Thus, one must simply say that these are garden variety restrictives. The existence of restrictives modifying names does not in any way preclude the possibility of appositives doing the same.

The second line of argument concerns “problematic” examples where relatives are interpreted as modifying entity-denoting names:

- (40) [ xǐhuan yīnyuè de ]<sub>CP</sub> zhāngsān chángcháng qù yīnyuèhuì.  
 like music DE Zhangsan often go concert

‘Zhangsan, who likes music, often goes to concerts.’

(Del Gobbo’s literal translation: ‘Music-liking Zhangsan often goes to concerts.’)

Del Gobbo (2003: 142–144) argues that even relative clauses in this type of example must be interpreted as restrictive at some level. However the three diagnostics on which this claim rests are not

convincing. The first diagnostic is based on McCawley's (1981: 117) observation that an appositive cannot be naturally repeated in a question-answer pair<sup>26</sup>:

(41) Appositives Resist Repetition (McCawley 1981)

- Q: Does John, who speaks French, often go to France for work?  
 a. A: Yes, John often goes to France for work.  
 b. ??Yes, John, who speaks French, often goes to France for work.

Del Gobbo (2003: 143) observes that Mandarin relative clauses modifying proper names can in some cases be repeated, as in the following example. However, crucially, there is no control for whether the name is interpreted as denoting an individual or a property. In fact, my consultants indicate that (42) cannot stand as a felicitous dialogue concerning a single Zhangsan, and is possible only if we have been talking about a number of Zhangsans, just one of whom likes music<sup>27</sup>.

- (42) Q: [ xǐhuan yīnyuè de ]<sub>CP</sub> zhāngsān chángcháng qù yīnyuèhuì ma?  
 like music DE Zhangsan often go concert PRT  
 'Does (the) Zhangsan that likes music often go to concerts?'  
 cf. Del Gobbo's literal translation: 'Does music-liking Zhangsan often go to concerts?'  
 A: duì, [ xǐhuan yīnyuè de ]<sub>CP</sub> zhāngsān chángcháng qù yīnyuèhuì.  
 right like music DE Zhangsan often go concert  
 'Yes, (the) Zhangsan that likes music often goes to concerts.'  
 cf. Del Gobbo's literal translation: 'Yes, music-liking Zhangsan often goes to concerts.'

Aside from providing more explicit contexts, one simple way to control for the property-denoting reading of proper names is to use familiar names that denote truly unique individuals. Thus, consider the following example, where Zhangsan (the "John Doe" of China) has been replaced with the popular author Wang Xiaobo. In this case, the repetition of the relative clause is distinctly unnatural, indicating that when a relative clause modifies an entity-denoting name, repetition is *not* possible, just as we would expect from an appositive.

- (43) Q: [ xǐhuan yīnyuè de ]<sub>CP</sub> wáng-xiǎobō chángcháng qù yīnyuèhuì ma?  
 like music DE Wang.Xiaobo often go concert PRT  
 'Does Wang Xiaobo, who likes music, often go to concerts?'  
 A: ??duì, [ xǐhuan yīnyuè de ]<sub>CP</sub> wáng-xiǎobō chángcháng qù yīnyuèhuì.  
 right like music DE Wang.Xiaobo often go concert  
 'Yes, Wang Xiaobo, who likes music, often goes to concerts.'

The second diagnostic involves binding into the relative clause. According to Del Gobbo (2003: 144) even when the anchor is fixed as individual-denoting, it can still contain a pronoun bound from outside,

<sup>26</sup> This diagnostic can be seen as a special case of the presupposition test discussed in section §2.4.1.

<sup>27</sup> While the restrictive meaning would be brought out more clearly by adding the demonstrative *nèi-gè* 'that-CL' before the proper name, this is not a necessary addition, as Del Gobbo (2003: 89, ff. 9) observes in earlier discussion.

indicating that the clause is restrictive rather than appositive.

Before looking at the Mandarin facts, it's worth pointing out that this diagnostic is by no means fail-safe in English. For example, the following sentence appears to contain an appositive-internal pronoun bound from an appositive-external position:

- (44) [Each contestant]<sub>i</sub> was asked ten questions about [his]<sub>i</sub> wife, who had to sit behind the scenes and couldn't help [him]<sub>i</sub>.

If we want to hold on to the claim that appositives are opaque to binding (with Potts 2003: 104–108), we could simply argue that (44) is not a true case of binding. In particular, this example could be a case of the “illusory binding” that Fox (2000: 56) discusses as *telescoping* (following Roberts 1987). To avoid this complication, Potts (2003: 107), in running the binding test on English appositives, is careful to use downward entailing quantifiers, which Fox (2000) cites as ruling out the option of telescoping (Evans 1980).

However, when we turn to Del Gobbo's application of the binding test to Mandarin relative clauses anchored to entity-denoting proper names, the possibility for telescoping is not controlled for. Thus, the following example<sup>28</sup> is no more exceptional as an appositive than the English clause in (44):

- (45) [ měi yī gè xuésheng ]<sub>i</sub> dōu xǐhuan [ shì tā<sub>i</sub> dǎoshī de ]<sub>CP</sub> huáng lǎoshī.  
 each one CL student          DISTR like          be he advisor DE          Huang teacher  
 ‘[Every student]<sub>i</sub> likes professor Huang, who is his<sub>i</sub> advisor.’ (Del Gobbo 2003: 144, ex. 116)

The following examples demonstrate that once we control for telescoping by selecting a downward entailing quantifier, the illusion of binding into appositives disappears. For the purpose of comparison, example (46) shows a restrictive relative bound into by the negative quantifier *méi-yǒu rén* ‘nobody’, and (47) gives a typical appositive modifying an individual-denoting proper name. The crucial data point is in (48), where the appositive has been minimally modified to contain a pronoun bound by the negative quantifier above. This results in infelicity, just as Potts (2003: 108) finds for parallel cases in English, and as we see reflected in the anomalous translation of (48).

- (46) méi-yǒu rén<sub>i</sub>      yuànyì hé      [ jīngcháng tōu tā<sub>i</sub> de dōngxi de ]<sub>CP</sub> rén  
 not-have person willing with      often      steal he POSS thing      DE      person  
 zuò zài yīqǐ.  
 sit at together  
 ‘Nobody<sub>i</sub> is willing to sit with someone who often steals his<sub>i</sub> things.’<sup>29</sup>

28 The speakers I have consulted do not find (45) acceptable. However, I proceed on the assumption that it (or some similar example) is grammatical for the sake of argument, to show that even if such structures exist, they do not stand in the way of the claim that the clauses within them are genuine appositives.

29 I provide translations with bound *he* in (46) and (48) for the sake of clarity, despite the fact that these uses of gender-neutral *he* are ungrammatical in my speech. In cases where the gender of the referents is unknown or mixed, I resort to singular *they*.

- (47) *bān-lǐ méi-yǒu rén yuànyì hé [ jīngcháng tōu dōngxì de ]<sub>CP</sub> lǐsì ...*  
 class-LOC not-have person willing with often steal thing DE Lisi ...  
 ‘Nobody in class is willing to sit with Lisi, who often steals things.’
- (48) *#bān-lǐ méi-yǒu rén<sub>i</sub> yuànyì hé [ jīngcháng tōu tā<sub>i</sub> de dōngxì de ]<sub>CP</sub> lǐsì ...*  
 class-LOC not-have person willing with often steal he POSS thing DE Lisi ...  
 Intended: ‘Nobody<sub>i</sub> in class is willing to sit with Lisi, who often steals his<sub>i</sub> things.’

The same facts hold true with the long-distance reflexive anaphor *zìjǐ*. In (49), we see binding of *zìjǐ* across a restrictive relative boundary, whereas in (50) binding into an appositive is impossible. Again, the important point is that the quantifier in question is negative, ruling out the option of telescoping.

- (49) *bān-lǐ méi-yǒu nǚshēng<sub>i</sub> yuànyì hé [ bǐ zìjǐ<sub>i</sub> ǎi de ]<sub>CP</sub> rén tánliànnài.*  
 class-LOC not-have girl willing with compare self short DE person go.out  
 ‘No girl<sub>i</sub> in class is willing to go out with a person shorter than herself<sub>i</sub>.’
- (50) *#bān-lǐ méi-yǒu nǚshēng<sub>i</sub> yuànyì hé [ bǐ zìjǐ<sub>i</sub> ǎi de ]<sub>CP</sub> lǐsì tánliànnài.*  
 class-LOC not-have girl willing with compare self short DE Lisi go.out  
 Intended: ‘No girl<sub>i</sub> in class is willing to go out with Lisi, who is shorter than herself<sub>i</sub>.’

As for the third and final diagnostic, Del Gobbo (2003: 144) argues that relatives modifying individual-denoting names resist root-level adverbs, again showing that they pattern with restrictives. However, as we saw in the previous section, the “adverb” in question *shùnbiànshuō* ‘by the way’ has an extremely restricted distribution, and is unlike English root-level adverbs like *frankly* in crucial ways. If we adapt this diagnostic to use the adverb *gūji* ‘reckon’ as we did in the previous section, the results are different. Example (51) shows a relative clause that both modifies a unique proper name and contains a root-level adverb, thus simultaneously displaying two tell-tale signs of appositivity:

- (51) *wǒ zuì xǐhuan de zhōngguó shīrén yǒu lǐ-bái, dù-fū,*  
 I most like DE China poet have Li-Bai Du-Fu  
*hái yǒu [ gūji nǐ méi kàn-guò de ]<sub>CP</sub> xú-zhì mó.*  
 also have reckon you have.not read-EXP DE Xu-Zhimo  
 ‘My favorite Chinese poets are Li Bai, Du Fu, and also Xu Zhimo, who you probably haven’t read.’

Overall, we’ve seen that Mandarin relative clauses modifying names can be either restrictive or appositive, and that as in English, the interpretation depends just on whether the name in question is property or individual-denoting. When modifying an individual-denoting name, Mandarin relative clauses are true appositives in every sense. In addition to being semantically supplementing, resisting repetition, and accepting root adverbs, these appositives show a pattern of opacity to binding that is familiar from English—appositives do resist true binding, but can show telescoping effects that mimic binding when the quantifier is not downward entailing.

## 2.5 Inapplicable Restrictive-Defeating Diagnostics

So far, the presupposition test, root-adverb test, and singleton anchor test have provided highly suggestive evidence that Mandarin possesses appositive relatives, and furthermore, that these clauses typically occupy the post-demonstrative RC<sub>2</sub> position, as Chao (1968) had originally hypothesized (again, see §4 for exceptions). In this section, I look at two tests that appear to go the opposite way. I resolve the conflict by showing that these diagnostics depend on language-specific particulars in the syntax of relativization and the availability of specific movement and type-shifting operations. Thus, these tests are not good candidates for diagnosing appositivity cross-linguistically.

### 2.5.1 The Relative Clause Ordering Test

This double-edged diagnostic comes from Jackendoff's (1977: 171) observation that non-restrictive relative clauses *follow* all restrictives. The appositive-defeating and restrictive-defeating sides of this test are drawn out more explicitly in (52), and illustrated by the example in (53). Note that in the English example, the *that*-relative is independently known to be restrictive, since appositives can't be headed by *that*, and the *who*-relative is independently known to be appositive, due to the comma intonation.

(52) Appositives are DP-Final, Following Restrictives

- a. An appositive relative can't precede a relative clause independently known to be restrictive.
- b. A restrictive relative can't follow a relative clause independently known to be appositive.

- (53) a. The girl that I saw, who John dislikes, is beautiful.  
 b. \*The girl, who John dislikes, that I saw is beautiful.

Del Gobbo 2003: ex. 29, modified from Jackendoff (1977: 169)

As Del Gobbo (2003: 59) observes, this test cannot be directly imported to Chinese, since relatives are prenominal. However let's assume with Del Gobbo that the test could be generalized as follows:

- (54) A restrictive relative is *closer* to the noun than an appositive relative. (Del Gobbo 2003: 59)

If this is the essence of the ordering test, I claim that the test is not cross-linguistically viable. We will see below that both English and Mandarin have clauses that *must* be appositive, by a variety of restrictive-defeating tests, and yet *can* surface closer to the noun than restrictives. Thus, if we resolve to hold on to the formulation of the ordering test in (54), we are forced to give up on a number of other defining notions of appositivity.

Del Gobbo's (2003: 60) main claim with respect to (54) is just that *if* Chao's traditional analysis is correct (that RC<sub>1</sub> is restrictive and RC<sub>2</sub> appositive), then Mandarin examples with both relative positions filled will run counter to the ordering predictions of (54). For example, if every instance of RC<sub>2</sub> were appositive, then (55) would violate (54).

(55) Del Gobbo's Test Case for Diagnostic (54)

[ wǒ kàn-jiàn de ]<sub>CP</sub> nèi gè [ zhāngsān bù xǐhuan de ]<sub>CP</sub> gūniang hěn piàoliang.  
 I see-appear DE that CL Zhangsan not like DE girl very pretty  
 Del Gobbo's paraphrase: 'The girl [ that I saw ] [ that Zhangsan dislikes ] is beautiful.'

However in this particular example, RC<sub>2</sub> can clearly be restrictive, as Del Gobbo's paraphrase shows. This can also be confirmed by placing the sentence in a context where only a restrictive reading would be possible. For example, if the immediately preceding context has established that Zhangsan doesn't like a particular set of girls, (55) could be used to specify *which* of those girls is beautiful—namely the one that I saw (out of the ones he dislikes).

But as we've seen before, the *possibility* of a restrictive RC<sub>2</sub> in no way implies the impossibility of an appositive in the same position. The important question, then, is whether a clearly appositive RC<sub>2</sub> can ever be preceded by a restrictive. By and large, native speakers judge such examples as awkward. If we ask whether (55) can receive an interpretation where the clause [who Zhangsan dislikes] is extra, supplementing information, the answer is unclear. Similarly, if we force the appositive reading by adding a root-level adverb to the second clause, as discussed in section §2.4.2, the result is somewhat unnatural:

(56) ?? [ wǒ kàn-jiàn de ]<sub>CP</sub> nèi gè [ gūjì zhāngsān bù xǐhuan de ]<sub>CP</sub> gūniang ...  
 I see-appear DE that CL reckon Zhangsan not like DE girl  
 'The girl that I saw, who I reckon Zhangsan dislikes, is beautiful.'

There are a number of reasons that (56) may be dispreferred, and I will not resolve this question here. Some speakers report the intuition that there is too much within a single phrase, or that the utterance sounds too "planned out". These judgments agree with Li and Thompson's (1981: 125) observation that multiple modifiers within a single noun phrase are a rare occurrence in Mandarin. Another potential problem is with the content of the appositive itself. Lin (2003: 221–223) suggests that Mandarin appositives must denote permanent properties, and [who Zhangsan dislikes] may not be easily construed as such<sup>30</sup>.

But regardless of the particular problems with (56), we *do* find clear examples of Mandarin appositives following restrictives within the noun phrase. Two such examples from the Penn Chinese Treebank are as follows:

30 Finally, there may be a problem with the use of the overt head noun *gūniang* 'girl'. In functional terms, if we've already narrowed down the referent of the noun phrase by means of a restrictive relative clause, and have already gone on to add supplementing information via an appositive clause, it seems highly likely that the head noun itself will be recoverable from context. Thus, examples like (54) may be inferior to comparable forms where the head noun is elided. However, in the case of elision, we can no longer be certain that the appositive is prenominal, as opposed to attaching as a parenthetical post-nominally.

(57) ... [ zuì zǎo bèi jièshào dào zhōngguó de ]<sub>CP1</sub> [ wéi shù bù duō de ]<sub>CP2</sub>  
 most early PASS introduce to China DE be number not many DE  
 jǐ míng ōu-měi gēxīng ...  
 several CL Europe-America pop.star

‘As one of [ those Western pop stars [ who were introduced to China early on ]<sub>CP1</sub> , [ who are not many in number ]<sub>CP2</sub> ]<sub>DP</sub> , Richard Marx has an astonishing number of fans in China.’

(58) ... [ pǔdōng kāifā qī nián lái yǐnjìn de ]<sub>CP1</sub>  
 Pudong develop seven year over introduce DE  
 [ tōuzī yīqiānwàn měiyuán yǐshàng de ]<sub>CP2</sub> yībǎiwùshíqī gè gōngyè dà xiàngmù ...  
 invest ten.million dollar above DE 157 CL industry big project

‘According to the Pudong New District Trade Bureau’s tracking survey of [ the 157 large-scale industrial projects [ that were introduced during the development of Pudong over the last seven years ]<sub>CP1</sub> , [ which cost (individually) more than USD \$10M ]<sub>CP2</sub> ]<sub>DP</sub> , at present 116 have been completed and put into operation ...’

Note that in (57), the second relative clause cannot be interpreted as semantically restricting the head noun *pop-star*, as this would produce the meaning “the pop stars that are not many in number.” Similarly, (58) is not referring to those 157 projects that satisfy the condition of costing more than USD \$10M, out of some larger set of large-scale industrial projects introduced in Pudong. Rather, the second relative adds supplementing information about a set of 157 projects that is already identified.

Given these counter-examples, we have to conclude that something is wrong with either Jackendoff’s original test, or the extension of it in (54). In what follows, I argue that there is a grain of truth to both of these diagnostics, but that they encode tendencies rather than certainties. In particular, I believe that there is a fundamental correlation between appositiveness and position within DP along the lines that Jackendoff (1977) and Del Gobbo (2003) are suggesting. This correspondence arises from the difference in how restrictive and appositive modifiers are interpreted. Restrictives modify properties (type  $\langle e, t \rangle$ ), whereas appositives modify individuals (type  $\langle e \rangle$ ), and as we saw in (5), the property-denoting modifiers within DP are lower than the entity-denoting ones. However I propose that this correspondence is no less overridable than any correspondence of meaning with (surface) syntax. Specifically, if a restrictive relative were raised from its underlying position, and interpreted via reconstruction, nothing would prevent it from surfacing further from the noun than appositive modifiers. Similarly, if an appositive were able to take scope higher than its surface position, nothing would prevent it from appearing closer to the noun than a restrictive modifier. Thus, the real ordering correspondence can be summarized as follows:

(59) An appositive relative will surface higher than a restrictive relative *unless* one or both of the clauses is interpreted as having scope different from its surface position.

In fact, we can find evidence for both types of mismatch in English. Emonds (1979) discusses exceptions to Jackendoff’s ordering principle involving extraposition of a restrictive around an appositive into a sentence-final position. For example, (60), from Emonds (1979: 222), provides clear evidence that restrictive relatives *can* surface higher than where they take scope.

- (60) a. We found the movie, which cost plenty, that you so highly recommended.  
 b. \*We found the movie, which cost plenty, that you so highly recommend exciting.

The second type of mismatch would involve appositives appearing embedded within DP, but still apparently functioning to modify the expression denoted by the entire DP. While it is unclear whether English appositives have this ability, the positioning of non-restrictive adjectives raises questions about the interpretive possibilities for non-restrictive modifiers in general. For example, if *industrious* in (61) can be interpreted as modifying a (collective) individual, rather than restrictively intersecting with a property, we seem forced to step back from any strict generalization that DP-internal modifiers are restrictive.

- (61) The industrious Greeks built the parthenon in only fifteen years.

I won't explore the other various possibilities for interpreting (61) here, (though see Del Gobbo's 2003 p.145 adaptation of a proposal by Chung and Ladusaw 2004 for one option), but observe simply that if English allows *industrious* to modify an expression of type ⟨e⟩ non-restrictively from a position within DP, then it would not be unreasonable to think that the same mechanism of interpretation could be available for a Mandarin DP-internal appositive relative clause.

In summary, we've seen that scope of interpretation places demands on relative clause ordering, but only to the degree that scope is transparently represented by the surface syntax. While neither English nor Mandarin robustly preserve the scope relations between relative clauses on the surface, we can hold on to Jackendoff's diagnostic by saying that this ordering will persist unless an attested operation dispels it. One prediction this leads to is that we should find languages that *do* respect the ordering test, just in case scope-obscuring operations like extraposition are unavailable<sup>31</sup>.

### 2.5.2 *The Non-Nominal Anchor Test*

In this section, I consider a test whose results in Mandarin are less clear—the non-nominal anchor test. The general fact is that Mandarin resists non-nominal anchors. The explanation I pursue here, following discussion in Lin (2003: 226), is that this fact falls out not from a lack of appositives, but from independent facts about the syntax of Mandarin relativization. At the same time, I point to several cases that go against the overwhelming tendency, containing what appear to be appositives anchoring to adjectives. I begin with a general discussion of non-nominal anchors that highlights various restrictions on their use that we will need to keep in mind when applying this diagnostic.

The basic observation behind the non-nominal anchor test, tracing back to Ross (1969), is that English appositives can attach to anchors of any syntactic category, whereas restrictives can only modify nominal expressions. This diagnostic has been a regular player in discussions of appositivity, including work by Jackendoff (1977), Sells (1985a), Potts (2003), De Vries (2006) and others.

31 I remain neutral here on whether non-restrictive NP modifiers like *industrious* are interpreted in-situ or not. If they are, the existence of the transparent language described here would depend not only on the absence of movement operations targeting relative clauses, but also on the absence of whatever mode of semantic interpretation permits *industrious* to modify an expression of type ⟨e⟩. It is not clear whether this means of interpretation is something we should expect to vary across languages or not.



Examples of appositives with non-nominal anchors are given in (62)<sup>32</sup>. If restrictive modifiers could attach to these same anchors, we would have sentences like those in (63); however these are impossible. I assume here that direct restrictive modification of a property *courageous* would be used to narrow down to properties denoting specific sub-types of courageousness. However to achieve this function, English requires an overt nominal structure, as in “The kind of courageous that ...”.

(62) Appositives can Anchor to Non-Nominal Anchors

- a. Mary is [ courageous ]<sub>AP</sub>, which I will never be.
- b. John is [ under the couch ]<sub>PP</sub>, which is where I should be.
- c. Mary has [ resigned ]<sub>VP</sub>, which is what John would like to do.
- d. [ John was late ]<sub>CP</sub>, which was unfortunate.

(63) Restrictives Resist Non-Nominal Heads

- a. \*Mary is [ courageous ]<sub>AP</sub> that only a fool would be. (cf. “the kind of courageous”)
- b. \*John is [ on leave ]<sub>PP</sub> that you don’t return from. (cf. “the kind of on leave”)

One way of looking at the data in (62) is as a remarkable fact about appositives—that they are free to attach to various syntactic categories. Another way of looking at the same data is as a remarkable fact about English non-nominals—that they are able to denote individuals (type <e>)<sup>33</sup>. Crucially, as Sells (1985b), Potts (2002), and Del Gobbo (2003: 152) have argued, this second remarkable condition must hold for the appositive structures in (62) to be licensed.

One indication that the anchors in (62) are entity-denoting comes from the observation that regardless of the class of anchor, the gaps in *which*-appositives are nominal and of type <e>, as shown by Potts (2002). This is not clear from the examples above, but comes to light when we take into consideration the following cases:

- (64) a. \*Mary is [ courageous ]<sub>AP</sub>, which John doesn’t seem.  
 b. \*John is [ under the couch ]<sub>PP</sub>, which Mary hid the money.  
 c. \*Mary has [ resigned ]<sub>VP</sub>, which John will tomorrow.  
 d. \*[ John was late ]<sub>CP</sub>, which Mary was disappointed (that).

The data in (64) show that a *which*-appositive cannot contain an unambiguously non-nominal gap<sup>34</sup>.

32 I have modified Del Gobbo’s examples (inherited from an earlier source) in two ways. First, in (62b) I have avoided the original PP [in the garden] in favor of [under the couch] to ensure that we have an interpretive difference between PP and NP modification. Second, in (62c), I have replaced the original appositive [which John hasn’t] with one that sounds more natural to my ears.

33 I do not claim that this is their *only* denotation, since it appears that as far as the main clause is concerned, the anchors have their usual (e.g. property-denoting) types. However, as I argue below, the anchors can also be interpreted as entities, and in fact must be interpreted as such to compute the contribution of the appositive itself.

34 It should be noted that appositives headed by different *wh*- words, including *where* and *when*, do appear to contain non-nominal gaps, as in: (i) ‘John is under the couch, where Mary hid the money’. However, it is not immediately apparent how to best analyze these cases. One possibility is that *where* in (i) is standing in for *under which*, allowing us to maintain that the appositive has a nominal anchor. Another possibility is that [where Mary hid the money] is a headless

This implies that the original examples in (62), despite appearances actually contained nominal gaps. In fact, this is not implausible, given that the gaps all occur in argument positions that could typically host pronominal *that*:

- (65) a. Mary is [ courageous ]<sub>AP</sub>. I will never be that.  
 b. John is [ under the couch ]<sub>PP</sub>. That is where I should be.  
 c. Mary has [ resigned ]<sub>VP</sub>. That is what John would like to do.  
 d. [ John was late ]<sub>CP</sub>. That was unfortunate.

If the gaps in appositives are nominal and individual-denoting, as I've suggested, then the anchors in (62) are being predicated over by functions that expect arguments of type  $\langle e \rangle$ , suggesting that either the anchor itself is nominal-like in denoting an entity (as Sells 1985b suggests), or else that some covert type-shifting operation is available to produce the needed  $\langle e \rangle$ -type meaning (the *nom* operation discussed in Partee 1987, or Chierchia's (1984)  $\cap$  operator). These approaches are supported by the fact that non-nominal appositive anchors can—as reiterated in (66)—be resumed with pronominal *that*, which resists unambiguously non-nominal positions, as in (67):

- (66) a. Mary is [ courageous ]<sub>AP</sub>. That is something that John doesn't seem.  
 b. John is [ under the couch ]<sub>PP</sub>. That is the place Mary hid the money.  
 c. Mary has [ resigned ]<sub>VP</sub>. That is what John will do tomorrow.  
 d. [ John was late ]<sub>CP</sub>. That is what disappointed Mary.
- (67) a. Mary is [ courageous ]<sub>AP</sub>. \*John doesn't seem that.  
 b. John is [ under the couch ]<sub>PP</sub>. \*Mary hid the money that.  
 c. Mary has [ resigned ]<sub>VP</sub>. \*John will that tomorrow.  
 d. [ John was late ]<sub>CP</sub>. \*Mary was disappointed (that) that.

If we accept that appositives can attach to non-nominal anchors only when the anchors can be shifted to type  $\langle e \rangle$  meanings, it raises the general question of what conditions permit this shift. In English, we find fairly generally that non-nominals can stand as entity-denoting arguments, for example appearing in subject position<sup>35</sup>:

- (68) a. [ Courageous ]<sub>AP</sub> is a good thing to be.  
 b. [ Under the couch ]<sub>PP</sub> is my favorite place.  
 c. [ To be forced to resign ]<sub>VP</sub> is what I fear most.  
 d. [ For John to be late ]<sub>CP</sub> would be a disaster.

However, this is not to say that the ability for non-nominals to denote individuals is completely unrestricted. Assuming that the felicity of an appositive modifier can be used to diagnose type  $\langle e \rangle$

---

relative as in 'I walked to where Mary hid the money'. In this case, the seeming appositive relative clause in (i) is actually a nominal apposition, similar to (ii) 'John is under the couch, the place Mary hid the money'.

35 Subject-auxiliary inversions such as 'Is courageous a good thing to be?' confirm that the bracketed phrases in (68) are true subjects.

meaning, the following examples show that AP *modifiers* resist being shifted to <e>-type denotations<sup>36</sup>:

- (69) a. \*The courageous, which is what I would like to be, lion trainers opened the cage.  
 b. \*The lion trainers courageous, which is what I would like to be, opened the cage.

Similarly, for whatever reason, some anchors in predicate position appear to resist appositive modification, and these correspond roughly to those that resist pronominalization with *that*, again suggesting an inability to shift to an <e>-type meaning:

- (70) a. ??Mary is an old friend of mine from New York, which John is as well.  
 b. ??Mary is a good person to get a letter of recommendation from, which John is as well.
- (71) a. Mary is an old friend of mine from New York. ??John is that as well.  
 b. Mary is a good person to get a letter of recommendation from. ??John is that as well.

To summarize the facts in English, we've seen that appositives can only attach to non-nominals that are able to denote individuals, which precludes anchors in modifier positions, as well as certain complex predicates. Furthermore, even when this first condition is met, appositives still require a nominal, <e>-type gap.

Turning now to Mandarin, the first question we have to ask is to what degree non-nominal constituents can be used as expressions of type <e>. While example (72) shows that shifting is not ruled out across the board, many cases that would be possible in English are unnatural in Mandarin. For example, (73) shows that the PP *zài chuáng xiàmiàn* 'under the bed' is unable to stand as a subject equated with a nominal predicate headed by *dìfang* 'place'<sup>37</sup>.

- (72) [ cóng shíèr diǎn dào yī diǎn ]<sub>PP</sub> shì wǔfàn shíjiān.  
 from twelve o'clock to one o'clock be lunch time  
 'From 12:00 to 1:00 is lunch time'

- (73) ??[ zài chuáng xiàmiàn ]<sub>PP</sub> shì māo zuì xǐhuan de dìfang.  
 at bed underside be cat most like DE place  
 'Under the bed is the cat's favorite place.'

We can tentatively conclude from examples like (73) that the operation by which a non-nominal is allowed to stand in an <e>-type position is more restricted in Mandarin than in English<sup>38</sup>. A further

36 Here, I test the modifier in both pre- and post-nominal positions, in case appositive-modified AP's pattern with other complex AP's in appearing post-nominally, as in [the students unhappy with the result].

37 This example can be salvaged by removing either the first or last word. If *dìfang* 'place' is removed, the predicate is a free relative, and the interpretation is "Being under the bed is what the cat likes (to do) the best." Note that Mandarin prepositions like *zài* '(be) at' can be used as predicates without recourse to the copula. On the other hand, if the initial preposition is removed, the meaning is "The bed's underside is the cat's favorite place." For evidence that locative markers like *xiàmiàn* 'underside' and *lǐ* 'inside' are nominal, rather than prepositional, see Huang, Li and Li (2009: 13).

38 With respect to PP specifically, Yen-hui Audrey Li (1990: 29–35) presents the related finding that Mandarin PP is unable to occur in Case positions, again showing their distribution is more restricted than English. While (72) seems to be an exception to this claim, the generalization still stands that PP typically resists such positions.

difference between the two languages concerns the positions that can be relativized. While the English relative gap can easily occur in the position of a predicative nominal, as the translations in (75) show, this seems to be impossible in Mandarin<sup>39</sup>:

- (74) a. *hǎo duō xiǎoháir dōu xiǎng dāng dàifu.*  
 very many kid DISTR want be doctor  
 ‘A lot of kids want to be a doctor.’
- b. *tā shì hǎo māma.*  
 she be good mom  
 ‘She is a good mom.’
- c. *wǒ bù suàn cōngmíng, dànshì wǒ suàn shuài.*  
 I not count.as smart but I count.as handsome  
 ‘I’m not smart, but I’m handsome.’
- (75) a. \**dàifu shì [ hǎo duō xiǎoháir dōu xiǎng dāng de ]<sub>CP</sub> (zhíyè).*  
 doctor be very many kid DISTR want be DE occupation  
 Intended: ‘A doctor is { something / an occupation } a lot of kids want to be.’
- b. \**hǎo māma bù shì [ nàme róngyì shì de ]<sub>CP</sub> .*  
 good mom not be that easy be DE  
 Intended: ‘A good mom is not an easy thing to be.’
- c. ... \**wǒ bù suàn de bǐ wǒ suàn de duō.*  
 I not count.as DE compare I count.as DE many  
 Intended: ‘Of the ten attributes written on the page (handsome, witty, kind, ...), there are more that I’m not than that I am.’

Note that the profession *dàifu* ‘doctor’ can stand as a subject of type <e>, as in (76), and that extraction out of predicate position is generally possible, as (77) shows with topicalization. Thus, these features can not be behind the infelicity of (75).

- (76) *dàifu bù shì yī gè hǎo de zhíyè.*  
 doctor not be a CL good DE occupation  
 ‘Doctor isn’t a good occupation.’
- (77) *tā xǐhuan zhànxiǎopiányi, dànshì huài-rén tā suànbùshàng.*  
 he like take.advantage.in.little.ways but bad-person he cannot.count.as  
 ‘He likes to take advantage of people in little ways, but he’s not a bad person.’  
 Literally: ‘... a bad person, he’s not.’

39 For the purposes of this claim, we need to distinguish verbs like *shì* ‘to be’, *dāng* ‘to act as’, and *suàn* ‘to count as’ from verbs like *zuò* ‘to act a part’, which are permissible in a context like (75b).

We can cull from the preceding discussion the following prerequisites to forming a Mandarin appositive on a non-nominal anchor:

(78) Restrictions on Mandarin Non-Nominally Anchored Appositives

- a. The anchor must be able to have an ⟨e⟩-type meaning.
- b. The gap within the appositive must be ⟨e⟩-type.
- c. The gap may not be in a predicative position (including the object following a copular verb).

With these restrictions in mind, one of the examples Del Gobbo (2003: 52) presents as evidence that Mandarin lacks appositives loses its force. In (79b), the appositive gap is in an unambiguously non-nominal position, and is moreover predicative.

- (79) a. zhāngsān hěn cōngmíng. lǐsì cónglái jiù bù cōngmíng.  
Zhangsan very smart Lisi never just not smart  
'Zhangsan is smart. Lisi has never been smart.'
- b. \*zhāngsān hěn [ lǐsì cónglái jiù bù de ]<sub>CP</sub> cōngmíng.  
Zhangsan very Lisi ever just not<sub>DE</sub> smart  
Intended: 'Zhangsan is very smart, which Lisi has never been.'

The following naturally occurring examples of appositives anchoring to adjectives avoid these confounds, and are acceptable.

- (80) guòlǜzǐ yòng de shì [ wǒ zuì tǎoyàn de ]<sub>CP</sub> guānghua de,  
filter use<sub>DE</sub> be I most hate<sub>DE</sub> smooth<sub>DE</sub>  
hái shì piān ròusè de, gèrén bù xǐhuan.  
also be lean flesh.toned<sub>DE</sub> personally not like  
'The filters they use are smooth, which is my least favorite, and border on flesh toned, which personally I don't like.'<sup>40</sup>  
(<http://bbs.yanyue.cn/viewthread.php?tid=144445>)

40 This example is unlikely to succumb to an alternative analysis on which the relative clause [which is my least favorite]<sub>CP</sub> is a headless relative, and hence does not modify *smooth*. On the first version of this analysis, *smooth* itself would be an apposition, giving a meaning of “The filters they use are my least favorite (kind of filter)—namely smooth”. On the second version, *smooth* is the second element of a list of properties describing the filters: “The filters they use are (1) my least favorite, (2) smooth, and also (3) flesh-colored”. One clue that these interpretations are not on the right track is the lack of a comma before the adjective *guānghua* ‘smooth’ (see section §3.2 for discussion of the intonational facts). In any case, if read without a pause, the intended interpretation is salient.

(81) wǒ de fángjiān shì [ wǒ zuì xǐhuan de ]<sub>CP</sub> lán sè de,  
 me POSS room be I most like DE blue DE  
 hái yǒu zhāng kě ài de chuáng.  
 even have CL cute DE bed

‘My room is blue, which is my favorite color, and even has a cute bed.’

(<http://studytour.jesie.org/ViewDetails.aspx?ArticleId=86>)

We find further confirmation of the appositivity of the clause in (81) when we run McCawley’s (1981: 117) repetition test. As an appositive, the clause resists repetition<sup>41</sup>:

(82) ??wǒ de fángjiān shì [ wǒ zuì xǐhuan de ]<sub>CP</sub> lán sè de,  
 me POSS room be I most like DE blue DE  
 hái yǒu zhāng kě ài de chuáng, yě shì [ wǒ zuì xǐhuan de ]<sub>CP</sub> lán sè de.  
 even have CL cute DE bed also be I most like DE blue DE

‘My room is blue, which is my favorite color, and even has a cute bed that’s also blue, which is my favorite color.’

While the above examples indicate that Mandarin AP can anchor an appositive relative clause, such examples are exceedingly rare. Furthermore, I believe that Del Gobbo (2003: 52) is correct in claiming that Mandarin relatives never attach to PP, VP or CP. What rules these structures out? Perhaps the simplest explanation is Lin’s (2003: 226):

“It is probably true that there is no Chinese relative that modifies a non-Noun projection. However, from this it cannot be concluded that Chinese lacks nonrestrictive relatives. A crucial property about Chinese relative clauses is the use of *de*, which is attached to every relative clause. Although it is controversial as to how one should analyze *de*, every Chinese linguist would agree that *de* is not equivalent to English relative pronouns. The function of *de* is to link a modifier XP to a nominal element. Thus, the requirement that a relative clause in Chinese always modifies a nominal projection but no other projection is a consequence of the linking element *de*. It has nothing to do with whether or not nonrestrictive relatives exist in Chinese.”

On this view, the AP anchors I presented above would be exceptional in allowing *de* to link a modifier to a non-nominal, while Del Gobbo’s examples would represent the regular syntactic state of affairs.

Overall, we’ve seen that the non-nominal anchor test is a dangerous one. First, the precise structural conditions on the use of non-nominal anchors remain elusive even in English, as their composition seems to depend on a covert type-shifting operation that is not uniformly available. Furthermore we saw that languages differ on what can and can’t be relativized (see Keenan 1985 for more examples of this variation), which can easily interfere with the construction of test cases. Finally, following Lin (2003), we have reason to believe that a clause’s inability to modify a non-nominal may reduce to a trivial syntactic fact of how relative clauses are built in a particular language, and in this case, the diagnostic loses its weight.

<sup>41</sup> A restrictive reading of (82) is possible, if we have been talking about different shades of blue, and both the room and bed are the (shade of) blue that I like the best.

## 2.6 Tests for Conventional Implicature Meaning

At this point we've cut down ten diagnostics to six that have the potential, logically speaking, to show whether Mandarin has appositives. Three indicated the presence of appositives, while I argued that two did not apply to Mandarin. I've ignored Del Gobbo's (2003, 2005) sixth restrictive-defeating diagnostic, the pied-piping test, since it can't be run in Mandarin (see Del Gobbo 2003: 62). To supplement these three successful tests, I provide here two semantic tests that also confirm that presence of appositives.

Potts (2005) identifies appositive relative clauses as belonging to a larger set of "supplementing" expressions, which also includes expressives, parentheticals, and both topic-oriented and utterance-modifying adverbs. What these supplements have in common is that they contribute conventional implicature (CI) meaning along a separate dimension of semantic composition. In characterizing this dimension of meaning, Potts (2005: 111–115) presents a range of defining properties:

- (83) Properties of Conventional Implicature Meaning (Potts 2003: 147–155, 2005: 111–115)
- a. *anti-backgrounding*: can't repeat backgrounded information (or is redundant)
  - b. *independence*: at-issue meaning can be calculated independently from CI meaning
  - c. *undeniability*: can't be denied or questioned with epistemic riders
  - d. *non-restrictiveness*: can't be used to restrict
  - e. *scopelessness*: always interpreted with widest scope, regardless of embedding

Not all of these properties can be readily used as restrictive-defeating diagnostics. I address (83a–c) here<sup>42</sup>. As for (a), we have already seen in section §2.4.1 that Mandarin appositives are acceptable when their content is new, non-backgrounded information, whereas restrictives resist conveying such material, so I will not repeat those tests here.

Moving on, property (b) says that the contribution of an appositive is fundamentally independent from the semantic computation of the meaning of the sentence it is embedded in. As a result, if the appositive is removed, the truth conditions of the sentence stay the same. This is a stark contrast with restrictive relative clauses, which do affect the at-issue meaning of the overall sentence.

Once again, Mandarin appositives display the expected behavior. In the following example, the at-issue content is just the proposition "The teacher thought that Zhangsan had done the prank", which can be evaluated independently of the supplementing content "Zhangsan was at home".

---

42 The problem with (83d–e) is that they lack a restrictive-defeating edge. In the case of (d), "restrictive" relative clauses don't always semantically restrict (Potts 2003: 125). With (e), the problem is that embedded restrictives aren't always interpreted with embedded scope. While property (83c) appears to lack a restrictive-defeating edge, we can adapt it as a diagnostic if it holds that restrictives *can* in general be questioned with epistemic riders. In this case, we can observe clauses in contexts that are known to forbid restrictives (e.g. modifying an individual-denoting proper name), and test whether they accept or resist questioning.

- (84) lǎoshī yǐwéi yīzhí zài jiā-li de zhāngsān zuò-le èzùojù.  
 teacher think.wrongly all.along at home-LOC DE Zhangsan do-PERF prank  
 ‘The teacher thought that Zhangsan, who had actually been at home all along, had done the prank.’

Furthermore, the supplementing content can’t be construed as embedded under the teacher’s beliefs. That is, the sentence commits the speaker to the claim that Zhangsan was at home, without making any commitment about where the teacher believes Zhangsan was. This kind of speaker-orientation is another hallmark of conventional implicature meaning.

Finally, if it were possible to frame diagnostic (c) directly as a restrictive-defeating test, it would hold that the content of restrictive relatives must be deniable and questionable with epistemic riders. However this claim is too strong. In general, it seems impossible to deny the content of a restrictive outright. However, it is possible to call it into question. Appositives, by contrast, resist both denial and questioning.

(85) Restrictives are Questionable with Epistemic Riders (but not deniable)

- a. #The party that they had was quiet, but they didn’t have a party.
- b. If they had a party, then the party that they had was quiet.

(86) Appositives are not Questionable with Epistemic Riders (nor deniable)

- a. #The party, which they held yesterday, was quiet, but they didn’t have a party.
- b. #If they had a party, then the party, which they held yesterday, was quiet.

Thus, we can use *inacceptability* of epistemic riders as a restrictive-defeating diagnostic, and apply it to Mandarin as follows. In (87), the content of the clause can be questioned, showing that it must be restrictive. The critical piece of data is in (88). The fact that the relative clause *cannot* be questioned is evidence that it is appositive.

- (87) yàoshi tāmen liǎ yǒu yī gè rén bù ài chī ròu,  
 if they two have one CL person not like eat meat  
 [ bù ài chī ròu de ]<sub>CP</sub> nèi gè rén kěyǐ chī zhè gè sù-cài.  
 not like eat meat DE that CL person can eat this CL vegetable-dish  
 ‘If one of the two of them doesn’t like to eat meat, then the one that doesn’t like meat can eat this vegetable dish.’

- (88) (#yàoshi zhāngsān bù ài chī ròu, )  
 if Zhangsan not like eat meat  
 [ bù ài chī ròu de ]<sub>CP</sub> zhāngsān kěyǐ chī zhè gè sù-cài.  
 not like eat meat DE Zhangsan can eat this CL vegetable-dish  
 ‘(If Zhangsan doesn’t like to eat meat, then) Zhangsan, who doesn’t like meat, can eat this vegetable dish.’



## 2.7 Summary of Diagnosing Mandarin Appositivity

To review, appositive-defeating diagnostics can only show a language lacks appositives in the case that independent evidence has already established that restrictives and appositives show up in different positions, or have other clearly identifiable characteristics (e.g. English comma intonation). Since we have strong evidence that Mandarin restrictives show up in the very positions we suspect appositives might appear, the appositive-defeating tests can not straightforwardly be used to show whether the language has appositives or not.

Of the restrictive-defeating tests we ran, five gave the result that Mandarin has appositives. These are the presupposed meaning test, root adverbs, singleton anchors, unquestionability, and independence of truth conditions. One further diagnostic, the non-nominal anchor test, gave unclear results, and I argued was not applicable to Mandarin. And finally, the ordering test proved to be unreliable for both English and Mandarin.

Without a doubt, the tests discussed above make up only a subset of known appositivity tests, and it will be interesting to see how the remaining tests<sup>43</sup> perform on Mandarin data. On the one hand, new diagnostics have the potential to support or weaken the claim that Mandarin has appositives. On the other hand, bringing in more diagnostics gives us the chance to investigate which tests diagnose a core sense of appositivity, and which are language-specific.

## 3. On Prenominal Appositivity

This section considers, unfavorably, various attempts in the literature to derive the presumed non-existence of prenominal appositives from basic principles. I show that there is no fundamental conflict between being prenominal and being appositive, and argue against an alternative structure that De Vries (2006) puts forward as a means for maintaining a uniform ban on such clauses.

### 3.1 What's Wrong with Prenominal Appositives?

Del Gobbo (2005), Potts (2005), and De Vries (2006) all hope to derive the (so-called) fact that prenominal relatives can't be appositive. However we will see that the principles underlying such explanations are not systematic or well-understood.

The semantics Potts (2005) provides for supplements is not sensitive to linear order, and is in theory able to interpret structures of the form [apposition, anchor] just as easily as the attested English form [anchor, apposition]. What's more, the meaning of these structures is predicted to be indistinguishable. However, with respect to nominal appositions in particular, Potts questions this systematic flexibility as follows:

---

<sup>43</sup> The only of Del Gobbo's (2003, 2005) tests I have avoided is the pied-piping test, which seems clearly not to apply to Mandarin, since there is no visible *wh*-movement in the formation of relative clauses that would allow or disallow pied-piping. Zhang (2001) and Del Gobbo (2004) also test VP and NP ellipsis for the ability to elide an appositive, as well as semantic embeddability under an intensional matrix verb. For discussion of problems with running some of these tests in Mandarin, see Lin (2003: 220).

“But all the evidence known to me suggests that [this prediction] is incorrect. We must ensure that [nominal appositions] always involve right-adjunction of the appositive to the anchor in the syntax, and moreover that this right-adjoined item is always the functor.”

(Potts 2005: 137)

In a related discussion (pp. 106–107), Potts observes that languages like Turkish and Japanese that forbid right-adjunction categorically appear to lack nominal appositions and clearly appositive relatives<sup>44</sup>, providing further evidence for the sensitivity of appositive modification to linear order. Yet, at the same time, Potts (2005: 107) admits that this correlation does not amount to an explanation. In fact, without this explanation, Potts’ account of supplements (which depends heavily on the semantics, and is thus able to maintain a relatively conservative syntax for these constructions) could be seen as predicting that prenominal appositives should exist.

Del Gobbo (2005) and Del Vries (2006), on the other hand, claim that the linear ordering of appositive modifiers is not only fixed as rightward of the anchor, but also derivable from more primitive notions. Del Gobbo states:

“I propose to treat appositive relative clauses as an instance of E-type anaphora [...] . In order for the appositive relative pronoun to be correctly interpreted as E-type, it needs to temporally follow the ‘head’ it modifies. This is ultimately the reason why Chinese relative clauses cannot be appositive: they are prenominal, hence they always precede the ‘head’ they modify.”

(Del Gobbo 2005: preprint p.16)

The assumption here seems to be that some general principle rules out the use of an E(vans)-type pronoun that looks forward for its syntactic “antecedent”. However, this cannot be correct, given examples like (89), from Elbourne (2001: 270), credited to Bach and Peters:

(89) Every pilot who shot at **it** hit the MiG that chased him.

De Vries (2006) posits a general ordering constraint on the “specifying coordination” operation he uses to attach appositive modifiers to their anchors as follows:

“Specification of A by B means that B adds information to A; [...] . By definition, specification is asymmetric: it is always the second conjunct that specifies the first. The rationale for this assumption is that in a discourse one can add information only to something that has already been mentioned; moreover, the extra information is set off phonologically by low intonation.”

(De Vries 2006: 239)

Based in part on Del Gobbo’s findings for Chinese, De Vries (2006) aims to use the pseudo-pragmatic constraint above to argue for the superiority of a coordination-based syntax for appositive relatives over adjunction-based theories. He states (p.264) that “since, by definition, a specification follows the

<sup>44</sup> Recent work by Seda Kan (p.c.) suggests that, as in Mandarin, a closer look at Turkish reveals the existence of prenominal relatives with the distinctive properties of appositives.

element specified, [...] prenominal nonrestrictive appositions do not exist”. However, once again it isn’t clear what the source of this constraint itself is, or how generally it applies. In fact, examples of supplementing utterance-modifying expressions like *frankly* or *between you and me* (see Potts 2005: 145) seem to provide an exception to any general form of the principle above, in that they are pronounced before the utterance they add extra information about. Thus the purely functional explanation cannot be correct.

Beyond the inherent problems with formulating a general constraint against adding supplementing information about an individual that hasn’t been introduced yet, we run into empirical problems when confronted with Mandarin prenominal relative clauses that appear to be—and I’ve argued are indeed—appositive.

Concerning the Mandarin facts specifically, De Vries (2006: 265) considers two paths of escape for someone who wants to maintain that functional considerations rule out prenominal apposition structures cross-linguistically. The first path is to follow Del Gobbo (2005) in arguing that what appear to be clear examples of appositives (e.g. clauses modifying uniquely interpreted proper names) are in fact restrictive. I have argued in §2 that this is not a feasible approach. The second approach De Vries offers is to reanalyze the Mandarin examples using an alternative structure. I discuss this specific proposal in the next section.

### 3.2 Against De Vries’ (2006) Alternative Structure

De Vries (2006: 265) promotes the possibility that apparent “pre-nominal appositives” are in fact (definite) free relatives, followed by a nominal apposition. This is initially a plausible analysis of the Mandarin facts, in that a full Mandarin DP meaning “the one who likes music” can sound the same as a modifying relative clause meaning “who likes music”:

- (90) a. [ [ xǐhuan yīnyuè de ]<sub>CP</sub> ]<sub>DP</sub> shì zhāngsān.  
           like music DE be Zhangsan  
           ‘The one who likes music is Zhangsan.’
- b. [ [ xǐhuan yīnyuè de ]<sub>CP</sub> ( nèi gè ) rén ]<sub>DP</sub> shì zhāngsān.  
           like music DE that CL person be Zhangsan  
           ‘The person who likes music is Zhangsan.’

Thus, on De Vries’ account, any example that initially appears to involve a prenominal appositive structure like (91a) should in fact be analyzed as having a post-nominal modifier structure and meaning along the lines of (91b).

- (91) a. [ [ xǐhuan yīnyuè de ]<sub>CP</sub> zhāngsān ]<sub>DP</sub> chángcháng qù yīnyuèhuì.  
 like music DE Zhangsan often go concert  
 ‘Zhangsan, who likes music, often goes to concerts.’
- b. [ [ xǐhuan yīnyuè de ]<sub>CP</sub> ]<sub>DP</sub> , zhāngsān, chángcháng qù yīnyuèhuì.  
 like music DE Zhangsan often go concert  
 ‘The one who likes music, Zhangsan, often goes to concerts.’

Understanding whether this account is tenable depends foremost on whether purported examples of Mandarin appositives get interpreted with meanings like (91a) or meanings like (91b). While this difference in meaning may seem subtle, I argue that it is robust, and give examples below of appositive relatives that can only receive interpretations along the lines of (91a). The argument will also depend in part on the prosody of Mandarin nominal appositions, which I turn to now.

As the commas in (91b) indicate, Mandarin nominal appositions are prosodically isolated, produced with intonational breaks both before and after the apposition, as in English (see, e.g. Potts 2003: 124). We see hints of this prosody in the following written examples. The first example comes from James C.T. Huang’s doctoral thesis, where commas are written in the romanization. The second example is taken from Lao She’s (老舍) 1936 novel *Rickshaw Boy* (骆驼祥子), where the apposition is set off by dashes in the Chinese orthography. Finally, (94) is a constructed example with a longer anchor, and the commas correspond to spoken pauses.

- (92) [ niūyuē, zhè gè rénrén dōu zhīdao de chéngshì ]<sub>DP</sub>  
 New.York this CL everyone DISTR know DE city  
 ‘[New York, the city which everyone knows]<sub>DP</sub>’  
 (from Huang 1982, via Lin (2003: 208))
- (93) dàjiā dōu zhèng kàn-zhe xiǎo-wén — cáo jiā de xiǎo nánhái — xǐzǎo...  
 everyone DISTR just look-DUR little-Wen Cao family POSS little boy bathe  
 ‘Everyone was just watching little Wen—the Cao family’s little boy—having a bath...’  
 Orthography: “大家都正看着小文——曹家的小男孩——洗澡”
- (94) zài zhuōzi-shàng de nèi běnr hēisè de shū, zhànzhèng yú héping, shì lǐsì de.  
 on table-top DE that CL black DE book war and peace be Lisi POSS  
 ‘The black book on the table, War and Peace, is Lisi’s.’

It’s worth mentioning at the outset that many speakers find examples like (93) and (94) somewhat unnatural to begin with, and this may connect to the length of the anchor phrase. Speakers report that (93) has the ring of prose from a by-gone era, while (94) could appear in writing, but does not sound natural spoken. Nonetheless, the speakers I have consulted have a clear sense that to the degree (93–94) are possible, there *must* be a clear intonational break at the points of punctuation.

Judgments on the optionality of the break after the short anchor in (92) appear to be less clear, and in a case like the following, where both the anchor and apposition are extremely short, speakers agree that a

break is not required, and may even be dispreferred:

- (95) [ wǒ de péngyou zhāngsān ]<sub>DP</sub> (no intonational break)  
 me POSS friend zhangsan  
 ‘[My friend Zhangsan]<sub>DP</sub>’

One approach to these facts would be to stand by the generalization that nominal appositions are always offset prosodically, and conclude that (95) involves a prenominal non-restrictive modifier. However, I believe that even this example should be analyzed as a nominal apposition<sup>45</sup>. Here’s why. First, suggestively, English nominal appositions seem to be exempt from prosodic independence in precisely the same type of extremely short example, as in [my friend John]. Second, both the English and Mandarin examples of this form can be shown to be left-anchored via definiteness tests, as Potts (2003: 184) discusses for English. Specifically, expressions like [a guy John], despite their exceptional intonation, pattern with standard cases of nominal apposition like [a former linguist, Ed Witten] in their ability to appear in indefinite environments in both languages. For example, in (96), we see [a guy John] can be the pivot of a *there* or *have* existential, which are contexts that rule out definites like [John] or [John, a guy]:

- (96) a. There was a guy John there who was playing music.  
 b. #There was John there who was playing music.  
 c. #There was John, a guy, there who was playing music.  
 d. I had a student John last semester who always came in late.  
 e. #I had John last semester who always came in late.  
 f. #I had John, a student, last semester who always came in late.

The following examples illustrate the same behavior in Mandarin. In a default context like (97), either [a friend Zhangsan] or [my friend Zhangsan] are possible. In (98), the existential context rules out the definitely-anchored [my friend Zhangsan], while the indefinite [a friend Zhangsan] is licit. Finally, in (99), the indefinitely-anchored [a friend Zhangsan] resists appearing in topic position, as Mandarin indefinites are generally observed to do (Chao 1968, Li and Thompson 1981).

- (97) a. jīntiān wǎnshàng [ yī gè péngyou zhāngsān ]<sub>DP</sub> yào guò-lái chīfàn.  
 today night one CL friend Zhangsan will over-come eat  
 ‘A friend Zhangsan is coming over for dinner tonight.’  
 b. jīntiān wǎnshàng [ wǒ de péngyou zhāngsān ]<sub>DP</sub> yào guò-lái chīfàn.  
 today night me DE friend Zhangsan will over-come eat  
 ‘My friend Zhangsan is coming over for dinner tonight.’

45 Potts (2003: 179) discusses similar intonationally integrated cases as “integrated appositives”, and distinguishes their semantics from that of nominal appositions in terms of the meaning class contributed. This separation may be justified. However the important point for us here will be just that the external distribution of expressions like [my friend John] is determined by the left-most DP, so it would be wrong to treat them as containing prenominal appositives.

- (98) a. wǒ shàng gāozhōng de shíhou, yǒu [ yī gè péngyou zhāngsān ]<sub>DP</sub>  
 I attend high.school DE time have one CL friend Zhangsan  
 tóunǎo fǎnyìng màn, zǒngshì bèi biérén mà.  
 brain react slow always PASS others scold  
 ‘When I was in high school, I had a friend Zhangsan who was slow-witted and others  
 always made fun of him.’
- b. #wǒ shàng gāozhōng de shíhou, yǒu [ wǒ de péngyou zhāngsān ]<sub>DP</sub> ...  
 I attend high.school DE time have me DE friend Zhangsan  
 ‘When I was in high school, I had my friend Zhangsan who was slow-witted and ...’
- (99) a. [ wǒ de péngyou zhāngsān ]<sub>DP</sub> , méi rén xǐhuan.  
 me POSS friend Zhangsan not.have person like  
 ‘My friend Zhangsan, nobody likes.’
- b. ?? [ yī gè péngyou zhāngsān ]<sub>DP</sub> , méi rén xǐhuan.  
 one CL friend Zhangsan not.have person like  
 ‘A friend Zhangsan, nobody likes’

To summarize, we’ve seen so far that nominal appositions in Mandarin and English are alike in many ways. They are both post-nominal, and both require comma intonation in the general case, yet they both forgo this need for independent phrasing in cases where the anchor and apposition are both exceedingly short<sup>46</sup>. In fact, the only significant difference we’ve seen between the two types of apposition is in overall acceptability. English nominal appositions are easily accepted, whereas their Mandarin counterparts are often awkward or marginal, and seem to be increasingly so as their length increases.

With these results in hand, we can directly assess De Vries’ (2006) claim by testing whether purported appositive relative clauses are or aren’t followed by a prosodic break. The following example is one case where prosodic integration is not only acceptable, but in fact required. If (100) were a case of nominal apposition, as De Vries suspects, it would violate several generalizations about nominal appositions we have seen so far. First, (100) does not use the comma intonation we saw was mandatory with long anchors, and this pronunciation is shown to be illicit in (101). Second, (100) lacks the marginality or awkwardness that longer nominal appositions in Mandarin seem to generally have. Finally, if this example involved the structure De Vries suggests, then we would expect the free relative to receive a definite interpretation<sup>47</sup>, as in the translation of (101). However, this meaning is ruled out

46 This exception could potentially be understood in terms of prosodic minimality constraints of the kind discussed by Inkelas and Zec (1990).

47 It appears that Mandarin free relatives may in certain circumstances receive indefinite interpretations. One example is:

- (i) wǒ zuì xǐhuan de zuòjiā shì bǎ bǐ dàngzuò wǔqì de, lǔ-xùn  
 I most like DE author be [ take pen treat.as weapon DE ]<sub>CP</sub> Lu-Xun  
 ‘My favorite author is someone who treats the pen as a weapon, Lu Xun.’

However this type of interpretation is not available in the case of (101). See De Vries (2006: 260) for further discussion of indefinite free relatives.

by the stipulation in the context that more than one student stayed home<sup>48</sup>. Note that by contrast, the function of the supplement in (100) is not to identify a particular individual, but just to add the information that Lisi hadn't come to school, and so is in no way incompatible with others having stayed home as well.

- (100) Context: Our class is so big that the teacher never even looks to see who's there and who isn't. Today, five students were sick and stayed home instead of coming to class, but she didn't even notice. When someone secretly moved the teacher's chair as a joke...

lǎoshī hái yǐwéi shì [ gēnběn méi lái shàngxué de ]<sub>CP</sub> lìsì gàn de.  
teacher still think.wrongly be at.all have.not come take.school DE Lisi do DE

'The teacher thought it was Lisi, who hadn't even come to school in the first place, who did it.'

Entailment: The teacher thought it was Lisi who did it.

Supplement: Lisi hadn't even come to school in the first place.

- (101) ... #hái yǐwéi shì [ gēnběn méi lái shàngxué de ]<sub>CP</sub> , lìsì, gàn de.  
still think.wrongly be at.all have.not come take.school DE Lisi do DE

'The teacher thought it was the one who hadn't even come to school in the first place, Lisi, who did it.'

Entailment: The teacher thought it was the one who hadn't even come to school who did it.

Supplement: Lisi is the one who hadn't even come to school in the first place.

While I've shown that it can't be right for the case above, there is still one seeming advantage to adopting De Vries' alternative structure that warrants discussion. De Vries (2006: 265) observes that if apparent prenominal appositives are in fact just the anchors to rightward appositions, this predicts that proper names like those in (100) should not be replaceable with pronouns, since this would render the supplementing specification meaningless. If this is correct<sup>49</sup>, then an example like (102) could, to the degree that it is unacceptable, be taken to favor a reanalysis along the lines De Vries suggests. But at the same time, while (102) is not perfect, the corresponding example in (103) with comma intonation is judged as further degraded, suggesting that (102) is distinct from the nominal apposition structure.

48 We might expect (101) to be bad simply by virtue of the implausibility of the teacher's suspecting someone who was not even there. However this alone is not enough to rule the sentence out, since "the one who hadn't even come" could be the speaker's means of identifying the *de re* individual that teacher suspects (not necessarily knowing they were at home). We should, however also expect (in a neutral context) a *de dicto* reading of (101) where the object of the teacher's suspicion is "the one who hadn't even come", regardless of who that individual may be. Similarly, if we change the anchor in (100) from Zhangsan to a title like *bānzǎng* '(the) class monitor', we predict a reading where the teacher suspects "the class monitor", without necessarily knowing which individual this refers to. In sum, in both examples, we expect the anchor to be able to describe the *de dicto* object of the teacher's suspicion, while the supplementing appositive content should always be strictly speaker-oriented. I leave it to future research to (dis-)confirm these predictions.

49 Incidentally, I do not think it is right to say that pronominal content is inherently uninformative, given examples like the following:

- (i) The guy who you'll be working with <<pointing at a picture>>, him, is away in Hawaii right now.
- (ii) First, the chairman, John, will give a statement, and then the secretary, (namely) me, will read the schedule.

However the impossibility of (103) with comma intonation is a good indication that this type of meaning is, as De Vries would predict, not readily available in the usual case.

- (102) ?lǎoshī hái yǐwéi shì [ gēnběn méi lái shàngxué de ]<sub>CP</sub> wǒ gàn de.  
 teacher still think.wrongly be at.all have.not come take.school DE me do DE  
 ‘The teacher thought it was me, who hadn’t even come to school in the first place, who did it.’
- (103) ... ??hái yǐwéi shì [ gēnběn méi lái shàngxué de ]<sub>CP</sub> , wǒ, gàn de.  
 still think.wrongly be at.all have.not come take.school DE me do DE  
 ‘The teacher thought it was the one who hadn’t even come to school in the first place, me, who did it.’

If “meaningless specification” is not the problem with (102), where does the problem lie? I do not have a satisfactory answer, but take comfort in the fact that English displays the same idiosyncrasy. For some reason, appositive relatives weakly resist anchoring to pronouns<sup>50</sup>. In addition to the awkwardness of the translation in (102), consider the following cases:

- (104) a. ?I couldn’t believe that he, who I had trusted all along, was now betraying me.  
 b. (?I couldn’t believe that the one betraying me was him, who I had trusted all along.

If the judgments of (102) and (104) do indeed reflect a minor but general cross-linguistic problem with appositives anchoring to pronouns, then (102), and its contrast with (103) adds a small but further piece of support for the claim that Mandarin has appositives.

To conclude this section, I present a final case that does not lend itself to a reanalysis in terms of De Vries’ nominal apposition structure. This is an example we saw earlier, involving an appositive in post-demonstrative RC<sub>2</sub> position. Recall that the root-level adverb *bāchéng* ‘80 percent’ resists embedding in restrictive relatives, thus disambiguating toward the appositive reading of the otherwise ambiguous (105).

- (105) nèi xiē [ bāchéng kǎoshì huì bù jìgé de ]<sub>CP</sub> xuéshēng  
 that few 80.percent test will not pass DE student  
 yīnggāi gèng nǚli yī diǎnr.  
 should more make.effort a little  
 ‘Those students, who I reckon won’t pass the test, should put in more effort.’

A first piece of evidence against reanalysis is that the addition of comma intonation, as in (106), renders the example strongly infelicitous. But even if one suspected the intonational cues of not being robust, we can observe that the nominal apposition would receive a very strange interpretation. As the translation of (106) indicates, the relative clause would need to be taken as restrictive, which we have blocked by the use of the adverb. Beyond this, the apposition itself implies that it is somehow informative or especially relevant that these would-be non-passers are *students*, as opposed to something else—a bizarre meaning which was markedly absent from (105).

50 De Vries (2006: 264) cites a claim by Lehmann (1984: 277) that the following fixed scale encodes the ability of different elements to serve as anchor to an appositive: proper name >> definite or generic NP >> personal pronoun >> sentence. While this still falls short of an explanation, the facts in English and Mandarin described above would conform to this more general picture.



- (106) #nèi xiē [ bāchéng kǎoshì huì bù jígé de ]<sub>CP</sub> , xuéshēng,  
 that few 80.percent test will not pass DE student  
 yīnggāi gèng nǚli yī diǎnr.  
 should more make.effort a little  
 ‘Those that I reckon won’t pass the test, (namely) students, should put in more effort.’

#### 4. Towards an Account of Mandarin Relative Clause Positioning

Having shown that Mandarin does possess appositive relative clauses, we can take a fresh look at Chao’s problem of relative clause positioning. The problem, in its most general form is: given a relative clause with a particular meaning, within a particular noun phrase, where in that noun phrase will it be pronounced?

On the one hand, we have made real progress on this question. We have seen that appositivity is reliably diagnosable, and that in the great majority of cases, if the clause is appositive, it will appear in the post-demonstrative RC<sub>2</sub> position, as Chao predicts. On the other hand, we seem to have taken two steps backward. First, we have seen from Del Gobbo’s and other examples that appositives are not alone in occupying RC<sub>2</sub> position. Second, we found that in rare cases like (9), appositives can occur in RC<sub>1</sub>. So from the perspective of predicting relative clause positions, we seem to be back to square one.

I will not solve this general problem here, but I can offer a number of factors that I believe will have a role to play in any solution. First, the presence of an ordinal within the noun phrase has a clear effect on the interpretive possibilities for relative clauses in the two positions. In (107–109), attested in the Penn Chinese Treebank, we see RC<sub>1</sub> interpreted as appositive when in the presence of an ordinal. Furthermore, examples (110–112) show that the same clauses in RC<sub>2</sub> position can only receive restrictive readings, where the relative clause content is interpreted within the scope of the ordinal. In these particular cases, the restrictive readings are odd. Thus, the presence of an ordinal appears to *flip* the standard preferences that Chao reports for RC<sub>1</sub> being restrictive and RC<sub>2</sub> being appositive.

- (107) [ yìwài chūshēng de ]<sub>CP</sub> dì liù gè nán-yīng ràng yīshēng-men  
 unexpected be.born DE ORD SIX CL boy-infant make doctor-PL  
 zuì wéi fàngxīn.  
 most be at.ease  
 ‘The sixth baby, whose birth was unexpected, gave doctors the least trouble.’

- (108) [ yóu sānshísān suì de chǎnfù yáohóng zìrán rènshēn chūshēng de ]<sub>CP</sub>  
 from 33 age DE pregnant.woman Yao.Hong natural carry be.born DE  
 zhōngguó shǒu lì liù-bāo-tāi ...  
 China first instance six-placenta-fetus  
 ‘China’s first set of sextuplets, carried and birthed naturally by 33 year old Yao Hong, have at present suffered two successive deaths.’

- (109) [ qù-nián chū pǔdōng xīn qū dànshēng de ]<sub>CP</sub>  
 go-year start Pudong new district emerge DE  
 zhōngguó dì yī jiā yīliáo jīgòu yàopǐn cǎigòu fúwù zhōngxīn ...  
 China ORD one CL medical structure drug purchase service center  
 ‘China’s first drug procurement service center, which emerged in the new district of Pudong at the beginning of last year, has, by adhering to strict standards from its inception up until the present, dealt over 100,000,000 RMB in medicine, without a single case of kickbacks.’
- (110) dì liù gè [ yìwài chūshēng de ]<sub>CP</sub> nán-yīng ràng yīshēng-men ...  
 ORD SIX CL unexpected be.born DE boy-infant make doctor-PL  
 ‘The sixth of the babies whose births were unexpected gave doctors the least trouble.’
- (111) zhōngguó shǒu lì [ yóu sānshísān suì de chǎnfù yáohóng zìrán  
 China first instance from 33 age DE pregnant.woman Yao.Hong natural  
 rènshēn chūshēng de ]<sub>CP</sub> liù-bāo-tāi ...  
 carry be.born DE six-placenta-fetus  
 ‘China’s first set of sextuplets to be carried and birthed naturally by 33 year old Yao Hong...’
- (112) zhōngguó dì yī jiā [ qù-nián chū pǔdōng xīn qū dànshēng de ]<sub>CP</sub>  
 China ORD one CL go-year start Pudong new district emerge DE  
 yīliáo jīgòu yàopǐn cǎigòu fúwù zhōngxīn ...  
 medical structure drug purchase service center  
 ‘China’s first drug procurement service center to emerge in the new district of Pudong at the beginning of last year...’

Given interpretive ambiguities in the scope of ordinals, as shown in (113), one promising approach to the data above is to derive the position of the ordinal via movement from within the restrictive relative along the lines of Bhatt (1999: 27, 69).

- (113) dì yī běnr [ zhāngsān yāoqiú lǐsì kàn de ]<sub>CP</sub> shū hěn cháng.  
 ORD one CL Zhangsan request Lisi read DE book very long  
 ‘The first book that Zhangsan asked Lisi to read was long.’  
 a. The book that Zhangsan first asked Lisi to read was long.  
 b. The book that Zhangsan asked Lisi to first read was long.

A second case of flipped judgments involves relative clauses with the verb *bāokuò* ‘include’. In (114a), another naturally occurring example from the Penn Chinese Treebank, an appositive with *bāokuò* appears in RC<sub>1</sub> position. When moved to RC<sub>2</sub> as in (114b) speakers report that only a nonsensical restrictive reading is available, on which many provinces are somehow taken to each contain the single province of Jiangxi.

(114) Appositive RC<sub>1</sub> with including

- a. [ bāokuò jiāngxī zài nèi de ]<sub>CP</sub> xǔduō nèilù shěngfèn ...  
include Jiangxi be.at inside DE many interior province  
'Many interior provinces, including Jiangxi, are taking steps to further improve investment conditions.'
- b. #xǔduō [ bāokuò jiāngxī zài nèi de ]<sub>CP</sub> nèilù shěngfèn ...  
many include Jiangxi be.at inside DE interior province  
'Many interior provinces that (each) include Jiangxi are taking steps...'

It is not clear to me what specific property distinguishes *bāokuò* from other predicates. However, I can report that of the twenty-two RC<sub>1</sub> appositives in a subset<sup>51</sup> of the treebank, eleven contained *bāokuò*, and nine contained ordinals or superlatives. By comparison, none of the twenty-five RC<sub>2</sub> appositives in this subset of the corpus displayed these features. Thus, it seems safe to maintain the view we have held throughout: that the default position for appositives is RC<sub>2</sub>, while appositive RC<sub>1</sub> is exceptional, and depends on specific licensors.

A final factor that needs to be controlled for if we are to predict where a Mandarin relative clause will surface is the marking of contrast. For example, across a wide range of cases, speakers agree that when a restrictive relative clause is used contrastively, it must be in RC<sub>1</sub> position, as shown in (115):

## (115) Context: This ice cream parlor only has one flavor that I like, and one flavor that Lisi likes.

- a. [ wǒ xǐhuan de ]<sub>CP</sub> nèi gè wèidào shì qiǎokèlì (de).  
I like DE that CL flavor be chocolate DE  
'The flavor that I like is chocolate.'
- b. #nèi gè [ wǒ xǐhuan de ]<sub>CP</sub> wèidào shì qiǎokèlì (de).  
that CL I like DE flavor be chocolate DE

Similarly, when an appositive occurs together with an ordinal, if the ordinal bears contrastive focus, the pattern we saw in (107–112) can be overruled, as in (116).

51 The judgments of appositivity were supplied by my collaborator on the corpus work, Chloe Chenjie Gu. We limited our investigation to two subsets of the corpus. The first was a small subset that the corpus authors had double-annotated and adjudicated, presented as a “gold standard”. The second larger subset was limited to examples that came from *Xīnhuá* news articles. We imposed this restriction in an effort to minimize issues of dialectal variation and non-fluency in standard Mandarin. Within these subsets, we restricted our view to those 840 DP's that contained both a modifier that the corpus authors tagged as a relative clause, as well as an element whose location marked the clause as RC<sub>1</sub> or RC<sub>2</sub>. We disregarded any modifiers that were not unambiguously relative clauses (as opposed to complement clauses or AP or DP modifiers), resulting in a cut of 20% of the data. Of the clear relative clauses, 40 were actually modifying proper names, and were not identifiable as RC<sub>1</sub> or RC<sub>2</sub>. Of the 260 clear cases of RC<sub>1</sub>, we identified twenty-two as appositive (relying heavily on the presupposition test), and twenty of these contained *bāokuò*, ordinals, or superlatives. Among the 347 clear cases of RC<sub>2</sub>, we found twenty-five appositives. Furthermore, these RC<sub>2</sub> appositives did not have any obvious feature in common.

(116) Context: Last week, my mom sent me a letter and two photos. The first photo was really beautiful. But...

a. dì èr zhāng [ yījiùèrlíng nián pāi de ]<sub>CP</sub> zhàopiàn méi duìshàngjiāo.  
 ORD two CL 1920 year take DE photo have.not be.in.focus  
 ‘The *second* photo, which was taken in 1920, was out of focus.’

b. ?? [ yījiùèrlíng nián pāi de ]<sub>CP</sub> dì èr zhāng zhàopiàn méi duìshàngjiāo.  
 1920 year take DE ORD two CL photo have.not be.in.focus

Taken together, examples (115) and (116) suggest a preference for contrast-marked modifiers to occur higher than other material within the Mandarin noun phrase<sup>52</sup>. In fact, the push for contrastive material to appear in RC<sub>1</sub> appears to be enough to override the constraint Del Gobbo (2005) postulates against having individual-level modifiers in this position:

(117) Context: They have two girls—one with brown eyes, and one with blue eyes.

a. [ yǒu hēi yǎnjīng de ]<sub>CP</sub> nài gè nǚhái shì jiějie.  
 have black eye DE that CL girl be older.sister  
 ‘The girl with brown eyes is older.’

b. ??nài gè [ yǒu hēi yǎnjīng de ]<sub>CP</sub> nǚhái shì jiějie.  
 that CL have black eye DE girl be older.sister

I speculate that this preference may be the reflex of a prosodic constraint on where contrastive focus stress can be realized within prosodic structure, but leave the details of such an account as a problem for future work.

## 5. Conclusions

Overall, we have seen that a concise definition of “appositives” as relatives that convey supplementing meaning picks out in both English and Mandarin a set of clauses that share behaviors on a wide array of diagnostics, including many of the standard appositivity tests. Furthermore, given attested cross-linguistic variation in the syntax and prosody of relative clauses, I suspect that this is the only sense of “appositive” that can be meaningfully discussed as a fixed class across languages.

In sifting through the standard diagnostics, we ran across two (the relative clause ordering test and the non-nominal anchor test) that failed in Mandarin to correlate with the other diagnostics or with the core conception of appositivity. The approach I pursued was to throw these diagnostics out. As Lin (2003: 218) points out, failing to display a specific property of English appositives is not proof of non-appositivity. For the ordering test, we saw that even English fails to obey the predicted generalization. For the non-nominal anchor test, we found that Mandarin may in rare cases satisfy the test, but is generally unable to make use of non-nominal anchors for reasons independent of appositivity.

<sup>52</sup> Note that if this is correct, Chao’s (1968: §5.3.6.2) observations about contrast remain a mystery. According to Chao, RC<sub>2</sub> can receive a restrictive reading precisely when the modifying clause is contrastively stressed. This would seem to run counter to the generalization that contrastive material prefers to be in RC<sub>1</sub>.

Additionally, we encountered a range of diagnostics—appositive-defeating ones—that I showed are logically insufficient to demonstrate the non-existence of appositives. The essence of the problem is that appositive-defeating tests prove only that individual tokens are non-appositive, and not that a language lacks appositives across the board. If our goal is to demonstrate a general lack of appositives, these tests can only play a secondary role in the argumentation. In particular, if I claim that a given clause is appositive (say, by virtue of some restrictive-defeating test), an appositive-defeating test can at best be used to cast doubt on that specific claim, by showing that this particular token survives in contexts that typically dispel appositives. Thus, appositive-defeating tests serve to counteract claims to appositivity. They cannot diagnose a lack of appositivity in isolation.

Two major problems were left open. One is what determines the choice between RC<sub>1</sub> and RC<sub>2</sub> position in Mandarin. While the i-level vs. s-level distinction may contribute to this choice, I showed that other factors, including appositivity, the presence of contrastive focus, and the presence of an ordinal all have a role to play as well. Given this complex system of influences, it is reasonable to expect variation across speakers in preferring RC<sub>1</sub> over RC<sub>2</sub> in certain cases, and more research is needed to determine the degree of this variation and the lines it runs along.

Second, there is still a remaining question as to why appositives seem (subjectively at least) to be rarer in Mandarin than in English, and are (objectively) judged as less than natural in a wide range of circumstances. While I hope to have shown that appositives do exist in Mandarin, it is far from the truth to say that any English appositive can be straightforwardly translated into an equivalent appositive structure in Mandarin. I do not have a systematic explanation for this difference, but it is worth in this regard reconsidering De Vries' (2006: 239) functional explanation—that prenominal appositives, as a result of presenting supplementing information before the anchor being modified, are inherently uncooperative, and hard to process. Despite its inadequacy as an overriding principle, this explanation could successfully contribute to an account of why Mandarin tends away from appositives, and why in turn their presence is so easily overlooked.

## References

- Aoun, Joseph, and Yen-hui Audrey Li. 1993. Wh-Elements in Situ: Syntax or LF?. *Linguistic Inquiry* 24:199–238.
- Bhatt, Rajesh. 1999. Covert Modality in Non-finite Contexts. PhD Dissertation, University of Pennsylvania.
- Bhatt, Rajesh. 2005. Appositive Relative Clauses. LOT Summer School Handout, Universiteit Leiden. <<http://people.umass.edu/bhatt/752-s05/n55.pdf>>
- Bianchi, Valentina. 1999. *Consequences of Antisymmetry: Headed Relative Clauses*. Walter de Gruyter.
- Chao, Yuen Ren. 1968. *A Grammar of Spoken Chinese*. Berkeley: University of California Press.
- Chierchia, Gennaro. 1984. Topics in the Syntax and Semantics of Infinitives and Gerunds. University of Massachusetts, Amherst.
- Chierchia, Gennaro, and Sally McConnell-Ginet. 1990. *Meaning and Grammar: An Introduction to Semantics*. Cambridge, MA: MIT Press.
- Chung, Sandra, and William A. Ladusaw. 2004. *Restriction and Saturation*. Cambridge, MA: MIT Press.
- De Vries, Mark. 2006. The Syntax of Appositive Relativization: On Specifying Coordination, False Free Relatives, and Promotion. *Linguistic Inquiry* 37:229–270.
- Del Gobbo, Francesca. 2001. Appositives Schmappositives in Chinese. In UCI Working Papers in Linguistics, edited by M. Irie and H. Ono. 7:1–25.
- Del Gobbo, Francesca. 2002. Appositives and Chinese Relative Clauses. Pp. 175–190 in *Chicago Linguistic Society (CLS)*, vol. 38, edited by M. Andronis, E. Debenport, A. Pycha, and K. Yoshimura.
- Del Gobbo, Francesca. 2004. On Prenominal Relative Clauses and Appositive Adjectives. Pp. 182–194 in *Proceedings of WCCFL*, vol. 23, edited by B. Schmeiser, V. Chand, A. Kelleher, and A. Rodriguez.
- Del Gobbo, Francesca. 2005. Chinese Relative Clauses: Restrictive, Descriptive or Appositive. In *Proceedings of the XXX Incontro di Grammatica Generativa*, edited by L. Brugè, G. Giusti, N. Munaro, W. Schweikert, and G. Turano.
- Demirdache, Hamida. 1991. Resumptive Chains in Restrictive Relatives, Appositives and Dislocation Structures. PhD Dissertation, MIT.
- Elbourne, Paul. 2001. E-Type Anaphora as NP-Deletion. *Natural Language Semantics* 9:241–288.
- Emonds, Joseph. 1979. Appositive Relatives Have No Properties. *Linguistic Inquiry* 10:211–243.
- Evans, Gareth. 1980. Pronouns. *Linguistic Inquiry* 11:337–362.
- Fabb, Nigel. 1990. The Difference Between English Restrictive and Nonrestrictive Relative Clauses. *Journal of Linguistics* 26:57–77.
- Fox, Danny. 2000. *Economy and Semantic Interpretation*. Cambridge, MA: MIT Press.
- Harris, Jesse A., and Christopher Potts. 2009. Perspective-shifting with appositives and expressives. *Linguistics and Philosophy* 32:523–552.
- Hashimoto, Anne Y. 1971. *Mandarin Syntactic Structures*. Union 8, Princeton University.
- Huang, James C. T. 1982. Logical Relations in Chinese and the Theory of Grammar. PhD Dissertation, MIT.
- Huang, Cheng-Teh James, Yen-hui Audrey Li, and Yafei Li. 2009. *The Syntax of Chinese*. Cambridge University Press.
- Jackendoff, Ray S. 1977. *X-bar Syntax: A Study of Phrase Structure*. Cambridge, MA: MIT Press.

- Keenan, Edward L. 1985. Relative Clauses. Pp. 141–170 in *Language Typology and Syntactic Description: Complex Constructions*, vol. 2, edited by Timothy Shopen.
- Kempson, Ruth. 2003. Nonrestrictive relatives, and the growth of logical form. Ms., King's College London.
- Lehmann, Christian. 1984. *Der Relativsatz*. John Benjamins.
- Li, Charles N., and Sandra A. Thompson. 1981. *Mandarin Chinese: A Functional Reference Grammar*. Berkeley: University of California Press.
- Li, Yen-hui Audrey. 1990. *Order and Constituency in Mandarin Chinese*. Dordrecht, Netherlands: Kluwer Academic Publishers.
- Lin, Jo-wang. 2003. On Restrictive and Non-Restrictive Relative Clauses in Mandarin Chinese. *Qīnghuá Xuébào* [Tsinghua Journal of Chinese Studies] New Series Volume 32:257–296.
- Looock, Rudy. 2010. *Appositive Relative Clauses in English: Discourse Functions and Competing Structures*. John Benjamins Publishing Company.
- McCawley, James D. 1981. The Syntax and Semantics of English Relative Clauses. *Lingua* 53:99–149.
- McCawley, James D. 1998. *The Syntactic Phenomena of English*. 2nd ed. University of Chicago Press.
- Milner, Jean-Claude. 1973. *Arguments Linguistiques*. Mame.
- Ogle, Richard. 1974. Natural Order and Dislocated Syntax. PhD Dissertation, University of California, Los Angeles.
- Partee, Barbara H. 1987. Noun Phrase Interpretation and Type-shifting Principles. Pp. 115–143 in *Studies in Discourse Representation Theory and the Theory of Generalized Quantifiers*, vol. 8, edited by Jeroen A. G. Groenendijk, Dick De Jongh, and Martin J. B. Stokhof.
- Postal, Paul M. 1993. Parasitic Gaps and the Across-the-Board Phenomenon. *Linguistic Inquiry* 24:735–754.
- Potts, Christopher. 2002. The Syntax and Semantics of As-Parentheticals. *Natural Language and Linguistic Theory* 20:623–689.
- Potts, Christopher. 2003. The Logic of Conventional Implicatures. PhD Dissertation, University of California, Santa Cruz.
- Potts, Christopher. 2005. *The Logic of Conventional Implicatures*. Oxford University Press, USA.
- Roberts, Craige. 1987. Modal Subordination, Anaphora, and Distributivity. PhD Dissertation, University of Massachusetts, Amherst.
- Rodman, Robert. 1976. Scope Phenomena, “Movement Transformations”, and Relative Clauses. Pp. 165–176 in *Montague Grammar*, edited by Barbara H. Partee. New York: Academic Press.
- Ross, John R. 1967. Constraints on Variables in Syntax. PhD Dissertation, MIT.
- Ross, John R. 1969. Adjectives as Noun Phrases. Pp. 352–360 in *Modern Studies in English: Readings in Transformational Grammar*, edited by D. A. Reibel and S. A. Schane. Englewood Cliffs, NJ: Prentice-Hall.
- Safir, Ken. 1986. Relative Clauses in a Theory of Binding and Levels. *Linguistic Inquiry* 17:663–689.
- Selkirk, Elisabeth. to appear. The Syntax-Phonology Interface. In *The Handbook of Phonological Theory*, edited J. A. Goldsmith, J. Riggle, and A. Yu.
- Sells, Peter. 1985a. *Anaphora and the Nature of Semantic Representation*. Center for the Study of Language and Information, Stanford University.
- Sells, Peter. 1985b. *Restrictive and Non-Restrictive Modification*. Center for the Study of Language and Information, Stanford University.
- Vergnaud, Jean-Roger. 1974. French Relative Clauses. PhD Dissertation, MIT.

- Xue, Naiwen, Fei Xia, Fu-Dong Chiou, and Marta Palmer. 2005. The Penn Chinese TreeBank: Phrase Structure Annotation of a Large Corpus. *Natural Language Engineering* 11:207–238.
- Yang, Henrietta Shu-Fen. 2005. Plurality and Modification in Mandarin Chinese. PhD Dissertation, University of Texas, Austin.
- Zec, Draga, and Sharon Inkelas. 1990. Prosodically Constrained Syntax. Pp. 365–378 in *The Phonology-Syntax Connection*, edited by S. Inkelas and D. Zec. Chicago: University of Chicago Press.
- Zhang, Niina Ning. 2001. On the Absence of Nonrestrictive Relatives in Chinese.  
<<http://www.usc.edu/dept/LAS/ealc/chinling/articles/appositives.pdf>>



## Appendix – Potential Appositivity Tests

Here I provide brief notes on some of the 29 potential appositivity diagnostics listed in (118) and (119). The diagnostics are roughly classified as to whether they seem likely to be derivable from the generalization that appositive relative clauses convey conventional implicature meaning, whereas restrictive relatives convey presupposed meaning. These classifications are very much up for debate.

### (118) Restrictive-Defeating Diagnostics

<i>“If the relative clause _____ then it’s not restrictive.”</i>	<u>CI-Related</u>
a. meaning isn’t presupposed, backgrounded (Chierchia and McConnell-Ginet 1990)	Yes
b. meaning is independent of truth conditions	Yes
c. modifies a singleton	Yes
d. contains a root-level adverb like <i>frankly</i> (Milner 1973, Ogle 1974, Emonds 1979)	Yes
e. has a non-nominal anchor (Ross 1969, Jackendoff 1977, Sells 1985a)	Maybe
f. occurs after an appositive relative clause (Jackendoff 1977: 171)	Maybe
g. meaning is not elided along with NP in coordinate structure (De Vries 2006: 234)	Maybe
h. contains a floating quantifier (Bianchi 1999: 47)	Maybe
i. is constructed via pied-piping of a complex Wh- DP (Emonds 1979: 224)	No
j. is prosodically detached from the anchor	No

### (119) Appositive-Defeating Diagnostics

<i>“If the relative clause _____ then it’s not appositive.”</i>	<u>CI-Related</u>
k. meaning restricts (Potts 2003: 149)	Yes
l. meaning affects truth conditions (Potts 2005: 111)	Yes
m. meaning is presupposed or backgrounded (Chierchia and McConnell-Ginet 1990)	Yes
n. meaning is semantically embedded, or “plugged” (Potts 2003: 152)	Yes
o. can be reiterated in a question-answer pair (McCawley 1981: 117)	Likely
p. has an idiom head (Vergnaud 1974: 2.2, Emonds 1979: 233)	Likely
q. anchor is non-referential (Rodman 1976)	Likely
r. is bound into by a quantifier (Safir 1986)	Maybe
s. has a quantifier DP head (Ross 1967)	Maybe
t. has a gap in the position of an existential pivot (Postal 1993: 745)	Maybe
u. has scope reconstruction of the head (Bianchi 1999: 122–123)	Maybe
v. is infinitive (Emonds 1979: 237)	Maybe
w. modifies a phrase in the scope of negation (Sells 1985a, Demirdache 1991)	Maybe
x. meaning is elided along with NP in coordinate structure (De Vries 2006: 234)	Maybe
y. has null C or <i>that</i> (Ross 1967)	Unlikely
z. occurs before a restrictive relative clause (Jackendoff 1977: 171)	Unlikely
A. occurs extraposed (Vergnaud 1974: 181, Emonds 1979: 234)	No
B. occurs stacked with an appositive relative clause (McCawley 1998)	No
C. is prosodically integrated with the anchor (Potts 2003: 125, 178)	No

**Test (a)**

In a range of cases, restrictives *can* convey seemingly non-presupposed content. For example, in (120a), the context does not entail that the watch was given as a gift. Similarly, in (120b) the fact that she made a face is not given as background.

- (120) a. A: That's a nice watch!  
 B: Oh, thanks! The guy [ that gave it to me ]<sub>CP</sub> told me it's an antique.  
 b. When I told her that we'd won the lottery, the face [ that she made ]<sub>CP</sub> was indescribable.

If we want to hold on to test (a), we could say that in these examples, the presupposition has been accommodated. However, turning back to example (16b), we would have to ask what prevents accommodation of the information that a woman lost her bag. I will not attempt to sort out the precise conditions on accommodation here.

**Test (d)**

Test (d) is successful to the degree that *frankly* can provide strong pressure toward a non-restrictive reading. However (121) shows that it isn't right to say that *frankly* resists embedding in a restrictive clause across the board.

- (121) A: I don't even see why Bill is running for the election. He doesn't stand a chance.  
 B: I don't know... he's not *that* bad...  
 a. Now a guy that frankly has *no* chance of winning is John.  
 b. #Now a guy, who frankly has *no* chance of winning, is John.

This exception may relate to the indefiniteness of the head noun, which seems to obscure the restrictive vs. non-restrictive distinction (see Potts 2003: 126 for discussion).

**Test (e)**

See discussion in section §2.5.2 for evidence that this test is too narrowly syntactic to be applicable cross-linguistically.

**Test (f)**

See discussion in section §2.5.1. One exception to this test is caused by the ability to extrapose restrictive relatives rightward.

**Test (m)**

Contrary to several claims in the literature (e.g. Chierchia and McConnell-Ginet 1990: 351–352, Potts 2003: 148–149), appositives can't be said to categorically resist backgrounding (in Potts' sense, see my footnote 18), due to examples like the following:

- (122) No one had heard of the North Korean soccer team before 2009. So it was a surprise to many of us when in 2010, the North Korean team, [ who no one had even heard of a year before ]<sub>CP</sub>, was scoring its first goal against the World Cup champion Brazilians.

Perhaps we could say that the appositive content is “un-backgrounded” for the purpose of the discourse, giving a sense of “let me remind you”. However, the conditions on this rhetorical use need to be worked out before the test can be used reliably.

### **Test (n)**

One apparent exception to the unpluggability of appositive meaning is the following example. See Potts (2005: 116) and Harris and Potts (2009) for discussion of more exceptions to this generalization.

- (123) John believes that the people responsible for the economic crisis are little green aliens, who also kidnapped his grandparents and shot JFK.

### **Test (p)**

While it seems robust that appositives resist idiom heads, certain idiom chunks appear to resist use as the head of a restrictive as well:

- (124) ??I couldn't stand the fun that they made of me.

### **Test (q)**

The following example shows that appositive anchors need not be referential. Del Gobbo (2003: 104) reviews similar argument from Sells' (1985b: 2) against Rodman's (1976) claim that ARC anchor must be referential.

- (125) Each contestant had to answer five questions about his wife, who was asked to sit nearby and couldn't help him.

### **Test (r)**

As we observed in example (44), Safir's (1986) test doesn't work reliably for English.

### **Test (s)**

One exception to the generalization that appositives can't attach to a quantificational anchor is the following:

- (126) Most students, who had never seen a clown before, were afraid.

### **Test (t)**

While Postal's test appears to be robust, note that appositives can extract an element from within the pivot phrase:

(127) The food, which there was a lot of, was delicious.

### **Test (w)**

As it stands, this test is too strong. The following example shows an appositive anchor appearing in the scope of negation:

(128) I didn't see John, who was supposed to be my guide.

A more conservative version of this diagnostic would be: "An appositive relative clause can't anchor to a phrase whose existence is being negated." However even this seems to run into trouble, given that asserting an individual's non-existence in the real world leaves it as a possible referent in another possible world:

(129) We had no lamp, which would have been the only way to find our way back out of the cave.

### **Test (y)**

Ross' test seems to fail in informal registers:

(130) ... and the answer, that let me tell you nobody expected, was ten!

### **Test (z)**

See discussion in section §2.5.1. One exception to this test is caused by the ability to extrapose restrictive relatives rightward.

### **Test (A)**

De Vries (2006: 254) gives examples from Dutch and English (citing Fabb 1990:59) of extraposed appositive relatives. Also, Bhatt (2005: 6) cites examples of Italian "Relatif de Liaison", where an appositive clause appears to stand on its own, at a distance from its anchor.

### **Test (B)**

Potts (2005) cites an example from Kempson (2003) as a counterexample to the generalization the appositives can't be stacked:

(131) The sole, which I caught yesterday, which was caught in Scotland, was delicious.