

On the Absence of Nonrestrictive Relatives (in Chinese)

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1. Introduction

It has long been a controversial issue whether Chinese has nonrestrictive relatives or appositive relatives (Chao 1968, Tang 1979, Huang 1982, Tsao 1986: 34, etc.). The goal of this paper is to argue against the existence of nonrestrictive relatives in Chinese, and account for the absence in terms of the absence of relative pronouns in the language. More accurately, adopting Canac Marquis & Tremblay (1996, CT, hence), we argue that all relative clauses are restrictive and the so-called nonrestrictive relatives are DPs which have a coreferential relation with another DP and which contain a relative with a pro head. The presence of relative pronouns in the DPs licenses the pro syntactically to hold a coreferential relation with the antecedent DP. Since there is no relative pronoun in Chinese, the licensing is not available and thus DPs containing a relative with a pro head cannot have an apposition relation with other DPs in the language.

Although we show that certain constructions do not contain appositive expressions, we do not discuss their other properties in this paper.

Appositive expressions are divided into two types: those with an overt noun head, and those without, as shown in (1a) and (1b), respectively. In (1a) *a woman* is the noun head of the relative clause *whom Mary met at the party*, and the whole DP *a woman whom Mary met at the party* is an appositive expression, coreferential with the antecedent *Jane*. In (1b), the appositive expression *whom Mary met at the party* does not have a noun head.

- (1) a. Jane, a woman whom Mary met at the party, is brilliant.
b. Jane, whom Mary met at the party, is brilliant.

I will call the type of appositive expressions represented by (1a) Headed Appositive (HA), and the type represented by (1b) Null-Head Appositive (NHA).

CT claim that all relatives are restrictive, and those like the one in (1b) has a pro head. According to them, all appositive expressions are nominals, either in the form of a simple DP, like the underlined part in (2), or a DP which contains a relative clause, as in (1).

- (2) John, an absent-minded man, came late.

Obviously, simple nominal appositives like (2) and HAs like (1a) also occur in Chinese, as shown in (3a) and (3b), respectively:¹

- (3) a. Bolin, zhe ge Ouzhou chengshi, you bashi duo jia bowuguan.
Berlin, this cl Europe city have eighty more cl museum
'There are over eighty museums in Berlin, the European city.'
b. Bolin, zhe ge [CP renren dou zhidao] de chengshi, you bashi duo jia bowuguan.
Berlin this cl everyone all know de city have eighty more cl museum
'There are over eighty museums in Berlin, the city that everyone knows.'

Now the question is whether there are NHAs in Chinese. In next two sections we discuss in turn whether the Coda in the so-called Existential Coda Construction is NHA, and whether one of the two versions of relatives, one of which is nominal-initial and the other is

¹ The abbreviations used in the Chinese examples are: EXP: experience aspect, PRF: perfect aspect, PRT: sentence-final aspect particle, CL: classifier, DE: modification marker.

not, is NHA. We then look for an account for our conclusion in section 4. Section 5 is a short summary.

2. Are the Codas in ECCs NHAs?

The existential coda construction (ECC) refers to the construction in (4), where the NP must be indefinite and the XP (the underlined part in the data), called coda, is a clause modifying the NP.

- (4) a. YP - V – NP – XP
 b. Jie-shang lai-le yi ge xiaohair mei chuan xie.
 street-on come-prf one cl child not wear shoe
 ‘On the street has come a child who does not wear shoes.’
 b. Baoyu jiao-guo yi ge xuesheng hen wanpi.
 Baoyu teach-prf one cl student very naughty
 ‘Baoyu taught a student who was very naughty.’

The construction has been discussed in Li & Thompson (1981: 611-619 “Realis Descriptive Clause Construction”), Huang (1987), McCawley (1988: 451 cf. English “Pseudo-Relatives”, 1989), and Tsai (1994/1999), among others.

The coda in the ECC is different from a NHA in at least four respects.²

• 2.1 The Restrictiveness

The codas of ECC can restrict the meaning of their antecedents (Wilder 2000), whereas NHAs never do so. As it is well-known that removal of an appositive does not affect the content of the assertion. For instance, (5a) has an appositive DP *na ben wo zuotian mai de shu* ‘the book that I bought yesterday’, whereas (5b) does not. However, they make the same assertion, i.e., the book on the table is very interesting.’ However, as shown below, the ECC in the a-sentences and the corresponding b-sentences, where the coda is absent, make different assertions. For instance, (6a), an ECC, asserts that there is a blank page in the book, whereas (6b), which differs from (6a) in not containing the coda *shi kongbai* ‘be blank’ and is thus not an ECC, asserts that there is one page in the book. This is a semantically abnormal assertion, since a book cannot have only one page. The same assertion contrast is seen in the other pairs.

- (5) a. Zhuo-shang de na ben shu, na ben wo zuotian mai de shu, hen youqu.
 table-on de that cl book that cl I yesterday buy de book very interesting
 ‘The book on the table, the one I bought yesterday, is very interesting.’
 b. Zhuo-shang de na ben shu hen youqu.
 table-on de that cl book very interesting
 ‘The book on the table is very interesting.’
 (6) a. Zhe ben shu you yi ye shi kongbai. ≠ b
 this cl book have one page be blank
 ‘There is one blank page in this book.’
 b. #Zhe ben shu you yi ye.
 this cl book have one page
 ‘This book has one page.’
 (7) a. Zhe jia shangdian shang xingqi lai-le yi wei guke tebie tiaoti. ≠ b
 this cl shop last week come-prf one cl guest very picky
 ‘In this shop came a guest last week who was very picky.’

² I do not use the possibility of stacking as a test. Jackendoff (1977: 171) and McCawley (1988: 419) claim that HlessACs cannot stack. However, see Grosu and Landman (1998) for an opposite view. Vries (1999:4) also finds that appositives can stack in Dutch.

- b. Zhe jia shangdian shang xingqi lai-le yi wei guke.
this cl shop last week come-prf one cl guest
'In this shop came a guest last week.'
- (8) a. Zhe ge senlin-li zhang-zhe yi ke shu hen qimiao. ≠ b
this cl forest-in grow-prg one cl tree very intriguing
'In this forest there is a tree which is very intriguing.'
- b. #Zhe ge senlin-li zhang-zhe yi ke shu.
this cl forest-in grow-prg one cl tree
'In this forest there is one tree.'
- (9) a. Jia-li conglai mei lai-guo yi ge keren neng bodao fuqin.³ ≠
b home-in ever not come-exp one cl guest can convince father
'In my home there has never been a guest who can convince my father.'
- b. Jia-li conglai mei lai-guo yi ge keren.
home-in ever not come-exp one cl guest
'In my home there has never been a guest.'
- (10) a. Ta-mama mei sheng-guo yi ge haizi bu shi jinshiyan. ≠ b
he-mother not bear-exp one cl child not be short-sighted
'His mother never gives birth to a child who is not short-sighted.'
- b. #ta mama mei sheng-guo yi ge haizi.
he-mother not bear-exp one cl child
'His mother never gives birth to a child.'

We thus conclude that codas of the ECC restrict the meaning of their antecedents and therefore cannot be NHAs.

• 2.2 Intonation

NHAs do not integrate into the intonation of the matrix clauses (Jackendoff 1971: 62, McCawley 1988: 418), while the coda of the ECC does. The ECC "is pronounced with one single intonation contour" (Li & Thompson 1981: 614, See also Huang 1987: 235).

• 2.3 Position in the matrix clause

NHAs can occur in the middle of the matrix clauses, as in (1b) above, while the coda of the ECCs must occur at the right peripheral position of the whole construction.

- (11) Ta song-le yi ben shu (*hen youqu) gei wo.
he give-ASP one CL book very interesting to I
'He gave a book to me (which is very interesting).'

• 2.4 Adjacency to the antecedent

NHAs must be adjacent to the antecedents (McCawley 1988: 449, CT p. 7), whereas the coda in the ECC does not need to (Huang 1987: 231). In (12b), the relative *who Mary knows* is not adjacent to its head *a man*, and the sentence is acceptable. In contrast, in (13b), the NHA *who Mary knows* is not adjacent to its antecedent *Peter*, but the sentence is not acceptable. Like (12b) and unlike (13b), when the coda *hen youqu* 'very interesting' is not adjacent to its antecedent *yi ben shu* 'a cl book' in (14), the sentence is acceptable.

³ Huang (1987: 249) and Tsai (1999: 173) claim that the matrix predicate in ECC cannot be negated. The data in (9) and (10) and the example in McCawley (1989: 38) show that the claim is not true.

- (12) a. A man Mary knows came.
 b. A man came who Mary knows.
- (13) a. Peter, who Mary knows, came.
 b. *Peter came, who Mary knows.
- (14) Ta song-le yi ben shu gei wo hen youqu.
 he give-ASP one CL book to I very interesting
 ‘He gave a book to me which is very interesting.’

The above four points show us that the coda in the ECC does not exhibit properties of NHAs.

3. Are Non-Peripheral Relatives NHAs?

Chao (1968: 286) claims that nominal-initial relatives are restrictive, as in (15a), whereas non-peripheral relatives are descriptive, as in (15b).

- (15) a. [dai yanjing de] na wei xiansheng (restrictive)
 wear glasses de that cl gentleman
 ‘the gentleman who wears glasses’
 b. na wei [dai yanjing de] xiansheng (descriptive)
 that cl wear glasses de gentleman

The restrictive-descriptive contrast of modifiers with respect to the position of relatives, on the one hand, is denied in Tang (1979) and Tsao (1986: 15). On the other hand, it is accepted in Hashimoto (1971) and Huang (1982: 68).⁴ The general restrictive-descriptive contrast, beyond the position of relatives, nevertheless, is discussed in other contexts (see Sproat & Shih 1988, Lu 1998). However, whether this position contrast is correspondent to the contrast between restrictive relatives and NHAs has never been clarified. Recently, Gobbo (2001) challenges such a correspondence, claiming that “in Chinese the distinction between appositive and restrictive does not actually exist,” and “in Chinese relative clauses can only be restrictives.” (p. 2) In sections 3.1 through 3.4, I discuss some of the facts listed by Gobbo, and in sections 3.5 and 3.6 I add two new arguments, in addition to my arguments with respect to the ECC presented in the last section, to support her claim that relatives in Chinese, regardless of whether they take a nominal-peripheral position or not, are all restrictive.

• 3.1 Proper name antecedents

“Appositives, unlike restrictives, must be able to modify proper nouns” (Jackendoff 1977: 171):⁵

- (16) a. John, who came to dinner, sneezed.
 b. *John that came to dinner sneezed.

⁴ Huang (1982: 68) claims that (ii) is ungrammatical. However, many people, including Tsao (1986: 15) and me, find it fine. This disagreement is also discussed in Li (1999: 20).

(i) Niujué, zhè ge [CP renren dou zhīdào] de chéngshì, ...
 New-York this cl everyone all know de city
 ‘New York, the city that everyone knows, ...’
 (ii) Niujué, [CP renren dou zhīdào] de zhè ge chéngshì, ...
 New-York everyone all know de this cl city

⁵ The coda in the ECC cannot modify a proper noun. A constraint on ECC is that the pre-coda NP must be indefinite (Huang 1987).

(i) *Baoyu jiào-guó {Daiyu/na ge xuésheng} hén cōngmíng.
 Baoyu teach-exp Daiyu/that cl student very smart

In addition to the facts discussed in section 2, this fact also makes codas different from appositives.

Recall that according to CT, all relatives are restrictive, and NHAs are in fact HAs with a null head. Under their proposal, the above contrast follows from the more general constraint according to which proper names cannot be modified or restricted in the syntax by a relative or an adjective unless a determiner is present, in which case such proper names must be treated as common nouns (Longobardi 1994). The only strategy available to qualify a proper name is apposition, as in (2). CT propose that in the apposition, the modifying element is independently computed, and thus is not c-commanded by the proper name, and does not restrict its reference. For cases such as (16a), they argue that the proper name is not the head of the relative. The head of the relative is a covert pronominal, coreferential with the antecedent.

(17) John_i, **pro**_i who came to dinner, sneezed.

In Chinese, when a clause modifies a proper name, a demonstrative is obligatory, regardless of the order of the clause with respect to the demonstrative. The speaker of either of the following two sentences must presuppose the existence of two or more persons called *Baoyu*:⁶

- (18) a. Ni zuotian kanjian de *(na ge) Baoyu shi Shanghai-ren.
 you yesterday see de that cl Baoyu be Shanghai-person
 ‘The Baoyu whom you saw yesterday is from Shanghai.’
 b. [*(na ge) ni zuotian kanjian de Baoyu shi Shanghai-ren]
 that cl you yesterday see de Baoyu be Shanghai-person
 ‘The Baoyu whom you saw yesterday is from Shanghai.’

Since no clause can directly modify a proper name in Chinese, all relatives in Chinese pattern with restrictive relatives rather than NHAs.

• 3.2 The relative order of NHAs with respect to relatives

Between restrictive relatives and NHAs, the former are closer to the antecedent than the latter (Jackendoff 1977: 171):

- (19) a. The girl who won the prize, whom you know, will go to college.
 b. *The girl, whom you know, who won the prize, will go to college.

The contrast can be explained by the syntactic relation between appositives and their antecedents. Various assumptions have been proposed in the literature. Jackendoff (1977) proposes that the restrictive/nonrestrictive distinction is reflected configurationally, nonrestrictives being adjoined higher than restrictives to the nominals which contain the head noun. Demirdache (1991) claims that appositives are DP-adjuncts, lifted at LF out of the constituent containing their antecedent and then adjoined to the root clause, and they are

⁶ Tsao (1986: 33) and the researchers cited there consider sentences like (i) to be due to the influence of English and other European languages. Tsao claims that the antecedent in such sentences is ‘inherently’ non-restrictive, where it is not likely to cause any confusion about its function.

(i) [_{CP} Juyou wu-qian nian youjiu lishi] de Zhongguo, ...
 have five-thousand year long history de China
 ‘China, which has a long history of five thousand years, ...’
 (ii) [_{CP} Tang zai bing-chuang-shang] de Lu Xun hai zai xie wenzhang.
 lie at sick-bed-on de Lu Xun still prg write article
 ‘Lu Xun was still writing articles when he was in a patient-bed..’

Following Tsao, I treat data like (i) and my (ii) as instances of language change.

interpreted at LF as independent clauses. Ross (1967) analyzes appositives as independent clauses and CT claims that appositives are unmerged syntactic objects. Finally, Emonds (1979) and Vries (1999) assume that appositives are conjuncts. Except Jackendoff's approach, all other approaches, including Aoun et. al. (2001), assume that appositives are interpreted independently of their antecedents at LF. One shared assumption of all of these approaches is that appositives are not c-commanded by their antecedents.

On the other hand, no one doubts that both a relative clause and its noun head are parts of a DP. If a relative clause co-occurs with a NHA, the overt head noun is the head noun of the relative rather than that of the NHA, which has its own null head (CT). Accordingly, the overt head is syntactically closer to the relative clause than to the NHA. Consequently, the DP which contains the relative and its head noun is the antecedent of the NHA. The latter is either an adjunct to the former (in the Jackendoff-Demirdache's adjunct approach), or is computed independently of the former (in the other approaches). Thus there is no way for the latter to occur in a position internal to the former, i.e., between the over head noun and the relative.

Regular relatives in Chinese occur to the left of their head noun.⁷ Between non-peripheral relatives and nominal-initial relatives, the former is closer to the head noun than the latter. So if non-peripheral relatives, which are descriptive in Chao (1968), were NHAs, when they co-occur with nominal-initial relatives, we would expect the order of the following (20a) unacceptable, contrary to the fact. In (20a), there is an intonation pause after the first relative clause, indicating that the second relative clause is a non-peripheral relative, whereas the first one is a peripheral relative. In this order, the assumed non-restrictive relative is closer to the noun head *ren* 'person' than the assumed restrictive relative, an illegal order. However, this order is acceptable. In addition, as shown in the rest data of (20), other possible orders are also acceptable and there is no difference in meaning in this case.⁸

- (20) a. [Ni renshi] de, na ge [de-le da-jiang] de ren lai-le.
 you know de that cl get-prf big-prize de person come-prf
 'The person whom you know and who has got a big prize has come.'
 b. Na ge [ni renshi] de [de-le da-jiang] de ren lai-le.
 that cl you know de get-prf big-prize de person come-prf
 c. [Ni renshi] de [de-le da-jiang] de na ge ren lai-le.
 you know de get-prf big-prize de that cl person come-prf

The embedded clauses in the above data look more like stacked restrictive relatives. Again we fail to see a contrast between restrictive and nonrestrictive relatives in Chinese.

• 3.3 Non-nominal antecedents

The head of restrictive relatives are always nominal, whereas NHAs may take an antecedent that is an AP (21a), a PP (21b), and a clause (21c) (cf. Jackendoff 1977: 171):

- (21) a. John is afraid of snakes, which I'm sure that Mary is too.
 b. Senator Snerd is in Bermuda, where most of his colleagues are too.
 c. It has been reported that Senator is in Kuwait, which can't be right.

CT propose that the head of NHAs is always a (pro)nominal, be it overt or not. The NHAs above all contain a null head:

⁷ We use the word "regular" here because we do not want to rule out the possibility that the coda in the ECC is a relative to the right of its (null) head.

⁸ Considering a wider range of data, we do not agree with Gobbo's (2001: 9) claim that the order in (20a) is the only possible order. Nevertheless, we agree with her conclusion drawn from the order.

- (22) a. John is afraid of snakes, **pro** which I'm sure that Mary is too.
 b. Senator Snerd is in Bermuda, **pro** where most of his colleagues are too.
 c. It has been reported that Senator is in Kuwait, **pro** which can't be right.

They provide evidence from French for this structure. An overt (pro)nominal head occurs in all instances in French:

- (23) a. Marcelle est très fatiguée, **ce** que Marie n'est pas.
 Marcelle is very tired this what Marie isn't
 'Marcelle is very tired, which Marie is not.'
 b. Marcelle est au Mexique, (**endroit**) où elle avait toujours voulu aller.
 Marcelle is to Mexico place where she had always wanted go
 'Marcelle has gone to Mexico, {a/the} place where she had always wanted to go.'
 c. Marcelle est arrivée en retard, **ce/chose** qu'elle ne fait jamais.
 Marcelle is arrived in late this/thing what-she not do ever
 'Marcelle arrived late, {a/the} thing which she had never done before.'

This null head hypothesis captures their claim that all relatives are restrictive, and NHAs are restrictive relatives to their own null head. If so, and if appositives in general are computed independently of their antecedent, and thus do not c-select their antecedent, there is no constraint on the category of the antecedent, as expected.

The fact that (restrictive) relatives can never take anything but a nominal head can be covered by the hypothesis that the nominal head has a syntactic relation with the external D, which selects the CP where the nominal head is base-generated, according to Kayne (1994). The syntactic relation can be either Bianchi's (2000) D-incorporation or Kim's (1998) determiner-raising. If the head of a relative is not a nominal, such relation will not be able to hold. This is one account. We do not exclude other accounts for the fact.

As noted by Gobbo (2001), a relative in Chinese can only modify a nominal:

- (24) a. *Daiyu hen [Baoyu conglai jiu bu de] congming.
 Daiyu very Baoyu ever just not de smart
 b. Daiyu hen congming. Baoyu conglai jiu bu.
 Daiyu very smart Baoyu ever just not
 'Daiyu is intelligent. Baoyu never has been.'

Once more, we see that relatives in Chinese show the properties of restrictive relatives only.

• 3.4 Quantifier antecedents

It is well-known fact that NHAs, unlike regular relatives, cannot have a quantifier as their antecedent (Ross 1967). CT claim that if appositives are computed independently of their antecedents, the bound variable relation between them is blocked, just like it is blocked between independent clauses (25b). Since quantifiers have no reference, unlike the name *John* in (17), they may not act as discourse-antecedent of the pronominal either.

- (25) a. *{Everyone/no one}_i, pro_i who attended the party, had a good time.
 b. *{Everyone/no one}_i. He_i left.

In Chinese, if non-peripheral relatives were appositives, we would not expect them to be preceded by quantifiers such as *meige* 'every' and *henduo* 'many'. However, as noted by Lin (1997), they can, as shown in (26a) below. We can also see that in this case, the

construction containing the non-peripheral relative, (26a), is not different in meaning from the correspondent construction where the relative occurs nominal-initially, (26b). The same conclusion can be drawn from (27).⁹

- (26) a. [_{DP} Meige [chuxi wanhui] de ren] dou wan-le ge tongkai.
 every attend party de person all play-prf cl happy
 ‘Everyone who attended the party had a good time.’
 b. [_{DP} [Chuxi wanhui] de meige ren] dou wan-le ge tongkai.
 attend party de every person all play-prf cl happy
 ‘Everyone who attended the party had a good time.’
- (27) a. [_{DP} henduo [wo renshi] de ren] dou lai-le.
 many I know de person all come-prf
 ‘Many people whom I know came.’
 b. [_{DP} [wo renshi] de henduo ren] dou lai-le.
 I know de many person all come-prf
 ‘Many people whom I know came.’

Since relatives in Chinese, regardless of their position in the hosting DP, can all have an quantifier head, they show properties of restrictive relatives only.

• 3.5 The scope of a VP-ellipsis

As noted by McCawley (1988), VP anaphora does not include an appositive. This is expected from CT’s claim that appositive DPs do not belong to the same syntactic object as the VP gap.

- (28) John sold a violin, which had once belong to Nathan Milstein, to Itzhak Perlman, and Mary did [e] too.
 [e] = ... sell a violin to Itzhak Perlman.
 *[e] = ... sell a violin, which had once belong to Nathan Milstein, to Itzhak Perlman

Similarly, VP anaphora does not include a HA in Chinese, as shown in (29a), where the HA *liang ge yuanlai shuyu muqin de jiezhi* ‘two rings which had once belonged to the mother’ is out of the VP-anaphora. In contrast, VP anaphora does include the relative in both (29b) and (29c), regardless of the order-difference of the two sentences. In (29b), the relative *yuanlai shuyu muqin de* ‘which had once belonged to the mother’ occurs in the middle of the hosting DP, whereas in (29c), the same relative occurs to the left-peripheral of the DP.

- (29) a. Akiu yuanyi song-gei nü-pengyou liang ge jiezhi, liang ge yuanlai
 Akiu want give-to girl-friend two CL ring two CL originally
shuyu muqin de jiezhi, Fanjin ke bu yuanyi e.
 belong.to mother DE ring Fanjinr rather not want
 ‘Akiu wanted to give his girl friend two rings, which had once belonged to his mother, but Fanjin did not want to e.’
 [e] = give his girl friend two rings
 *[e] = give his girl friend two rings which had once belonged to his mother
- b. Akiu yuanyi song-gei nü-pengyou [liang ge yuanlai shuyu muqin
 Akiu want give-to girl-friend two CL originally belong.to mother

⁹ The data in this section shows that when the head of a relative is a quantifier, there is no grammaticality contrast between subject-gap and object-gap in the relative clause. Thus the subject-object gap contrast noted by Hou and Kitagawa (1987) is not general.

de jiezhi], Fanjin ke bu yuanyi e.
 DE ring Fanjin rather not want
 ‘Akiu wanted to give his girl friend two rings which had once belonged to his mother, but Fanjin did not want to e.’
 [e] = give his girl friend two rings which had once belonged to his mother

- c. Akiu yuanyi song-gei nü-pengyou [yuanlai shuyu muqin de
 Akiu want give-to girl-friend originally belong.to mother DE
 liang ge jiezhi], Fanjin ke bu yuanyi e.
 two CL ring Fanjin rather not want
 ‘Akiu wanted to give his girl friend two rings which had once belonged to his mother, but Fanjin did not want to e.’
 [e] = give his girl friend two rings which had once belonged to his mother

We thus see that both types of relatives are included in the VP anaphora, a property of restrictive relatives.

• 3.6 The opacity of NHAs

Unlike restrictive relatives, appositives cannot be in the scope of the verb *think* (Srivastav 1990, cited in Demidache 1991: 147). (30) does not imply that John thinks Bill is a genius. This fact shows that no c-command relation holds between the verb *thinks* and the appositive.

(30) John thinks that Mary loves Bill, who is a genius.

Similarly, (31a), which contains the HA *zhe liang ge you caihua de tongxue* ‘these two classmates who have talent,’ does not imply that Da Bao thinks that Lili and Mimi have talent. In contrast, both (31b), where the relative occurs to the right of the numeral and classifier, and (31c), where the relative occurs to left of the numeral and classifier, allow the reading that Da Bao indeed thinks that the two persons disliked by Akiu have talent.

- (31) a. Da Bao renwei Akiu taoyan Lili he Mimi, zhe liang ge you caihua de tongxue.
 Da Bao think Akiu dislike Lili and Mimi this two CL have talent DE classmate
 ‘Da Bao thinks that Akiu dislikes Lili and Mimi, the two classmates who have talent.’
- b. Da Bao renwei Akiu taoyan [liang ge you caihua de tongxue].
 Da Bao think Akiu dislike two CL have talent DE classmates
 ‘Da Bao thinks that Akiu dislikes two classmates who have talent.’
- c. Da Bao renwei Akiu taoyan [you caihua de liang ge tongxue].
 Da Bao think Akiu dislike have talent DE two CL classmates
 ‘Da Bao thinks that Akiu dislikes two classmates who have talent.’

The relatives in both orders pattern with restrictive relatives in the scope of the intentional verb reading.

Recall that in section 3.2 we mentioned various approaches to the syntactic relation between appositives and their antecedents. The facts discussed in this section, especially the last two, can only be accounted for by the approaches which assume that appositives are computed independently of their antecedents (Ross, Emonds, CT, Vries). If appositives were adjuncts of their antecedent, as assumed in Jackendoff’s adjunct approach, we would not expect the latter to be computed independently of the former.

The above six aspects strongly argue against the NHA status of relatives in either the nominal-peripheral position or non-peripheral position. If neither the coda in the ECC, discussed in section 2, nor relatives can be NHA in Chinese, we conclude that there is no NHA in Chinese at all. In next section, we investigate why this is the case.

4. Accounting for the absence of NHAs in Chinese

Both English and Chinese have HAs, as shown in the a-sentences below, but only English allows NHAs, as shown in the b-sentences below:

- (32) a. Jane, [a woman [whom Mary met at the party]], is brilliant.
 b. Jane, [Ø [whom Mary met at the party]], is brilliant.
- (33) a. Daiyu, [[shenshende ai-zhe Baoyu de] na ge guniang], hen hui xie shi.
 Daiyu, deeply love-prg Baoyu de that cl girl very can write poem
 'Daiyu, the girl who loved Baoyu deeply, can write poems well.'
 b. *Daiyu, [[shenshende ai-zhe Baoyu de] Ø], hen hui xie shi.
 Daiyu, deeply love-prg Baoyu de very can write poem

If Chinese indeed does not have NHAs, two questions arise: why UG allows this absence and how this absence is related to any syntactic property of the language.

To answer these two questions, we need to look at the syntactic representations of the appositive relation. Following CT, we have assumed that all appositives have their own heads, regardless of whether the heads are null or not. If UG allows null heads for appositives in languages such as English, conceptually, there is no way to rule out the possibility that in certain languages such as Chinese, appositives must have overt heads. This is just like the case that some languages allow pro-drop, while others do not. UG allows both types.

Our next question is why it is Chinese rather than English that requires an overt head noun for appositives. One important property of apposition in English is that the head noun of a relative clause and its relative pronoun cannot be both null. The ungrammaticality of data like (34d) is discussed in Jackendoff (1977: 171):

- (34) a. Jane, the woman whom you met at the party, is brilliant.
 b. Jane, the woman Ø you met at the party, is brilliant.
 c. Jane, Ø whom you met at the party, is brilliant.
 d. *Jane, Ø Ø you met at the party, is brilliant.

Since Paris (1976), it has been generally assumed that there is no relative pronoun in Chinese. Consequently, in apposition constructions in Chinese, if the head noun of a relative clause is null, as in (33b), we get the pattern of (34d), which is not acceptable. We claim that (33b) and (34d) are ruled out by the same constraint.

Notice that out of the apposition construction, relatives with a null head noun are acceptable (Li & Thompson 1981, among many others). Such relatives are called "beheaded relative clause" in Tsao (1986: 25).¹⁰

- (35) [ni zhidao de (dongxi)] tai duo le.
 you know de thing too many prt
 Lit: 'The things that you know are too many.'

¹⁰ English also has headless relatives, the so-called free relatives:

(i) John liked what(ever) I cooked.

However, the relative pronoun is obligatory here.

In (35), the head noun of the subject nominal is optional. When it is absent, the relative clause *ni zhidao de* ‘you know de’ stands alone without a head noun. In (33b), however, the beheaded relative is not allowed. The contrast suggests that it is the syntactic relation of apposition rather than relativization that requires the head noun to show up in Chinese.

In apposition, the role of relative pronouns cannot be played by other functional words. In English, a clause introduced by the complementizer *that* cannot be a NHA (Jackendoff 1977: 171):

(36) *Jane, that you met at the party, is brilliant.

Similarly, in Chinese, beheaded relatives introduced by the functional word *de*, whatever its function is, cannot occur as appositives. We have seen this in (33b).

In this study, we see three instances of consistency. First, relatives are all restrictive and appositives are all nominal. CT's approach, which we adopt here, differs from all other approaches we have known so far in that all appositives are treated as nominals rather than clauses. Thus the so-called nonrestrictive relative clauses are in fact DPs containing a restrictive relative clause with a *pro* head. Apposition, accordingly, is a relation between two DPs. They have a co-referential relation, although the appositive DP is not a constituent of the clause where the antecedent occurs. Instead, it is a predicative nominal of another clause (Emonds 1979, also Aoun et al. 2001: 386). If we are right, we can remove the label of nonrestrictive relative clause from the computation: there is no such category in syntax.

Second, illegal syntactic representations for the apposition relation in both the English-type languages and the Chinese-type languages are ruled out by the same constraint. Under CT's DP-to-DP relation hypothesis on apposition, we see that (33b) is ruled out by the same constraint that rules out both (34d) and (36). Thus the difference of (33) from (32) is not the missing of a certain type of relatives in Chinese. Instead, it is the missing of a close-set of syntactic elements, namely, relative pronouns, which have the function to license their hosting DP to have an apposition relation with another DP whenever the head noun (their binder, see below) is a *pro*. Thus, even in languages which have relative pronouns, in the absence of a relative pronoun, relatives with a null head noun cannot function as appositives. Our analysis is thus different from Gobbo (2001), where the contrast between English and Chinese is related to the contrast between head-initial relatives in the former and head-final relatives in the latter.

Although the common constraint has been found, there are still two questions. One is why relative pronouns have this licensing function, and the other is why apposition relation requires the appositive nominal to have an overt head. It is generally assumed that there is a dependency relation between the head noun of a relative and the adjacent relative pronoun, either in the sense of a binding chain (Chomsky 1977, Safir 1986, Browning 1991, and Demirdache 1991, etc.), or in the sense of a movement chain, regarding the relative pronoun as an overt trace (following the general idea of Aoun et al. 2001). To answer the first question, we assume that the dependency plays a role, and thus the presence of a relative pronoun always licenses the null form of the head noun. As for the second question, we leave it for future research.

Third, under the *pro*-hypothesis of NHA, we see that relative pronouns have consistent properties. Based on many contrasts between (restrictive) relatives and NHAs, including the contrast we discussed in section 3.4 (quantifier antecedents), Demirdache (1991) claims that relative pronouns are bound pronouns in restrictive relatives, whereas they are referring pronouns (E-type) in appositive relatives. In contrast, we claim that relative pronouns are bound pronouns consistently. They are bound by the head nominal of the relative clause, and the head nominal can be either overt or *pro*. As assumed generally, *pro* is an E-type pronoun.

Under our assumption, the pro in a NHA is co-referential with the antecedent DP. Then it is the pros rather than the relative pronouns of the NHAs that show the properties of referring pronouns.

One might wonder why pro can occur in the apposition construction in English, which is not a pro-drop language. However, it is possible that a certain type of pronouns occur only in some specific syntactic environments. For instance, Chinese is a pro-drop language, but pro is never an object of a preposition.

5. Summary

We have shown that clausal modifiers of nominals in Chinese, regardless of their positions, do not show properties of appositive expressions. This fact is related to the fact that there is no relative pronouns in Chinese. Appositives in Chinese must be expressed by either simple nominals, or nominals with their own relative clause. Beheaded relatives cannot occur as appositives. The same constraint is seen in English, where in the absence of a relative pronoun, a relative clause with a null head cannot occur as an appositive.

Theoretically, adopting CT, we view all appositives as DPs and regard the so-called nonrestrictive relative clauses as DPs which contain a relative with a pro head.

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