## Possessor Raising, Resumptive Pronouns, and Phases

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The goal of this paper is to resolve the controversy about whether possessor raising exists in Chinese. We argue, based on Hornstein (2000)'s economy approach, that the distribution of resumptive pronouns [RP] provides a new argument for the existence of possessor raising in Chinese (contra Huang (1982) but in accord with Cheng and Ritter (1988) and Yoon (1990)). Furthermore, our analysis provides new support for a cyclic spell-out model, since we show that the insertion of RPs is constrained by phases.

The controversy about the existence of possessor raising in Chinese is illustrated in (1) vs. (2b)/(3b). In (1), like in English, possessor raising is apparently impossible. In (2b)/(3b), on the other hand, possessor raising must have applied. As shown in (2a)/(3a), the presence of the genitive marker DE indicates that the possessor and the possessee are within the same noun phrase, hence the sentential adverb 'apparently' cannot occur between the possessor and the possessee (cf. Vermeulen (2005)). On the other hand, the possessor and the possessee are separated by a sentential adverb in (2b)/(3b), hence the possessor must occur outside the possessed noun phrase in these examples, providing evidence for the existence of possessor raising.

We argue for the following claims: i) possessor raising exists in Chinese; ii) possessor raising is subject to the restriction that the two copies of the possessor raising chain must occur within the same spell-out domain (where, following Chomsky (2001), *spell-out domain* is defined as the complement of a phase head or the root clause); iii) a violation of this restriction can be 'saved', as a Last Resort, by the insertion of an RP. As a consequence, the emergence of RPs is constrained by phases. The difference between examples (1) vs. (2b)/(3b) then follows from i) and ii). As shown in (4), the two copies of the possessor raising chain in (1) are in different spell-out domains (VP and the highest spell-out domain of the sentence), and hence possessor raising is impossible. The structure of (2b) is illustrated in (5). Assuming that possessor raising can target TP, both copies of the possessor raising chain are in the same spell-out domain (TP), hence ii) is met. Finally, in (3b), illustrated in (6), the two copies of the possessor raising chain are within the same spell-out domain (TP), since 'die' is an unaccusative verb, given the common assumption that unaccusative v, if present at all, is not a phase head here.

Evidence for claim iii) comes from examples (7) through (8). As stated in iii), a violation of the possessor raising restriction can be obviated by the insertion of an RP. This is shown in (7), which contrasts sharply with (1). Importantly, the insertion of an RP is only allowed as a Last Resort. We propose that RP insertion is constrained by cyclic spell-out in the sense of Chomsky (2001). If a chain is formed within the same spell-out domain, RPs are prohibited, given the Last Resort nature of RP insertion. On the other hand, if the possessor moves into another spell-out domain, the trace in the previous spell-out domain has to be overtly realized as an RP. Support for this analysis comes from (8): since the two copies of the possessor raising chain are in the same spell-out domain, insertion of an RP is not necessary, hence impossible. Lastly, our analysis predicts that once the possessor in (2b)/(3b) moves into a higher spell-out domain, an RP will be allowed again. This is shown in (9), with the structures in (10). In (10a), the possessor moves from within the subject in Spec TP to Spec CP, where it ends up in a different spell-out domain than its copy, hence an RP is inserted. In (10b), assuming that possessor raising as in (6) must target Spec TP first before it moves on to CP, the copy in Spec DP is in the same spell-out domain as the copy in Spec TP. Hence, an RP in the base position is excluded. The copy in Spec TP, on the other hand, is in a different spell-out domain than the copy in Spec CP, hence that copy must be realized as an RP.

Finally, our proposal sheds new light on the long standing debate about possessor raising vs. base-generation of possessors. An argument for the existence of possessor raising and against a base-generation approach to (all) possessors (such as, e.g., the recent pseudo-Double Object Construction [pseudo-DOC] proposal by Huang (2008)) comes from the distribution of RPs in (11) vs. (12). We follow Huang in that (12) involves the base-generation of the affectee argument *Sara*. The possessor position of the direct object can then be occupied by a possessive pronoun (*ta* is not an RP here). In (11), on the other hand, neither an RP nor a possessive pronoun is permitted. This follows only if such constructions must involve possessor raising. The direct insertion of a possessive pronoun is excluded since the possessor position is occupied by the copy of the moved possessor. Since the possessor and the possessee are in the same spell-out domain, realizing the copy as an RP is also impossible.

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(1) *Geruisen wo xihuan baba.
      Grissom I
                    like
                             father
     'I like Grissom's father.'
                                                           (cf. Huang (1982): p516, footnote 4, ex (ii))
     cf. *Grissom, I like father.
(2) a. Geruisen (*xianran) de (*xianran)
                                                   baba
                                                          (xianran)
                                                                       xihuan
                                                                                 Sala.
      Grissom
                   apparently DE apparently father apparently like
                                                                                 Sara
      'Grissom's father (apparently) likes Sara.'
    b. Geruisen (xianran)
                              baba (xianran)
                                                   xihuan
                                                             Sala.
      Grissom apparently father apparently like
                                                             Sara
(3) a. Geruisen (*xianran)
                                      baba
                                 de
                                               (xianran)
                                                           si-le.
                    apparently
                                               apparently die-ASP
      Grissom
                                 DE father
       'Grissom's father (apparently) died.'
   b. Geruisen (xianran)
                                 si-le
                                               baba.
       Grissom apparently
                                 die-ASP
                                               father
(4) *[_{CP/TP} Geruisen_i]_{TP} wo [_{vP}]_{VP} xihuan
                                               \int_{DP} \mathbf{t_i}
                                                        baba]]]].
                                                                            = (1)
           Grissom
                                       like
                                                        father
(5) [_{TP} Geruisen_i]_{TP} [_{DP} t_i]
                                         [vP t_i]_{VP} xihuan
                                                             Sala]]]].
                                                                            =(2b)
                               baba]<sub>i</sub>
        Grissom
                                 father
                                                     like
                                                               Sara
(6) [TP Geruiseni
                     [_{vP/VP} si-le
                                         [_{\rm DP} t_{\rm i}]
                                                 baba]]].
                                                                            = (3b)
       Grissom
                            die-ASP
                                                 father
(7) a. Geruisen wo xihuan ta baba.
      Grissom I
                    like
                             he father
    b. [CP/TP Geruisen; [TP wo [PP [VP xihuan [DP tai
                                                           baba]]]].
                                                                            = (7a)
             Grissom
                           I
                                        like
                                                           father
(8) a. *Geruisen si-le
                                          baba.
                                ta
        Grissom
                   die-ASP
                                he
                                          father
    b.*[TP Geruiseni
                                             [DP ta_i]
                         [_{\nu P/VP} si-le
                                                      baba]]].
                                                                            = (8a)
                                 die-ASP
           Grissom
                                                 he
                                                      father
(9) a. Geruisen
                   ta
                           baba
                                    xihuan
                                               Sala.
      Grissom
                    he
                           father
                                    like
                                               Sara
    b. Geruisen ta si-le
                                   baba.
       Grissom
                  he
                      die-ASP father
                                                        (VP xihuan
(10)
        a. [CP Geruisen; TP DP tai
                                        baba]<sub>i</sub>
                                                                                             = (9a)
                                                 [_{vP} t_i]
                                                                      Sala]]].
                                        father
                                                             like
              Grissom
                                  he
                                                                       Sara
        b. [CP Geruisen; TP ta; [PP si-le
                                                                                             = (9b)
                                                             baba]]]].
                                                      [_{DP} t_{i}]
              Grissom
                               he
                                         die-ASP
                                                             father
(11)
        Geruisen [_{VP} ba [_{VP} Sala; [_{VP} da-shang-le [_{DP} (*ta;) yi-zhi shou]]].
        Grissom
                      BA
                                        hit-hurt-ASP
                                                            she one-CL hand
                              Sara
        'Grissom hit Sara on her hand.'
(12)
        Geruisen he-le
                              Sala<sub>i</sub> (ta<sub>i</sub>) san-ping jiu.
        Grissom drink-ASP Sara she three-CL wine
        'Grissom drank three bottles of wine on Sara.'
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