

External Possession Constructions with Color Terms in Mandarin Chinese

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**PROBLEM** The possessive structures like (1a) is described as an External Possession Construction with Color Terms (EPCCT). The possessive subject (*Zhangsan*) is separated from the possessum (*lian*) by an adjective predicate (*hong*).

- (1) a. Zhangsan hong le lian.  
Zhangsan red ASP face “Zhangsan’s face becomes red.”  
b. Zhangsan de lian hong le.  
Zhangsan DE face red ASP “Zhangsan’s face becomes red.”

Like most EPCs, EPCCT displays obvious raising properties but a raising analysis (Landau 1999, Deal 2013) is problematic in terms of the affectee role *Zhangsan* bears. In Chomsky (1981) style raising, raising from theta position to theta position is banned by the theta criterion, which calls for a control analysis (Gueron 1985, Hole 2004). A recent solution (Lee-Shoenfeld 2006, Rodrigues 2010, Duarte & Oliveira 2018) appeals to the Hornstein (1999) style raising which discards the theta criterion, and a high affect APPL head is assumed to attract the possessor up. However, the problem persists since the possessor in (1b), a constituent with fully checked features, is not supposed to move.

**PROPOSAL** This article proposes that (1a) & (1b) are derived from an underlying inchoative structure as (2a). (1b) is formed by raising AP to VP, to vP and then to TP and then raising the entire possessive DP to spec\_TP, as in (2b). For (1a), AP moves to VP first, as in (3a); then DE moves to V and becomes null in PF as in (3b), drags the possessor to spec\_VP; then this *de=hong* complex moves to v, and drags the possessor up for licensing at spec\_vP, as in (3c); then the verbal complex moves to T and the possessor moves to spec\_TP for case, as in (3d).

- (2) a. [TP]le[<sub>VP</sub>Inch. [<sub>VP</sub> [<sub>sc</sub>[<sub>DP</sub>Zhangsan de lian][<sub>AP</sub>hong]]]]]  
b. [TP[<sub>DP</sub>Zhangsan de lian][<sub>T</sub>·Inch.=hong]=le[<sub>VP</sub> Inch.=hong[<sub>VP</sub> hong[<sub>sc</sub>[<sub>DP</sub>Zhangsan de lian][<sub>AP</sub>hong]]]]]  
(3) a. [TP]le[<sub>VP</sub> Inch.[<sub>VP</sub> hong[<sub>sc</sub>[<sub>DP</sub>Zhangsan de lian][<sub>AP</sub>hong]]]]]  
b. [TP]le[<sub>VP</sub> Inch.[<sub>VP</sub>Zhangsan[<sub>v</sub>·de=hong[<sub>sc</sub>[<sub>DP</sub>Zhangsan de lian][<sub>AP</sub>hong]]]]]  
c. [TP]le[<sub>VP</sub> Zhangsan[<sub>v</sub>·Inch.=de=hong[<sub>VP</sub> de=hong[<sub>sc</sub>[<sub>DP</sub>Zhangsan de lian][<sub>AP</sub>hong]]]]]  
d. [TPZhangsan[<sub>T</sub>·Inch.=de=hong]=le[<sub>VP</sub>Zhangsan[<sub>v</sub>·Inch.=de=hong[<sub>VP</sub>hong[<sub>sc</sub>[<sub>DP</sub>Zhangsan de lian][<sub>AP</sub>hong]]]]]]]

**Assumptions I** One underlying assumption is that DE is a theta discharger whose semantics is give below. And the inchoative head *Inch.* bears a hidden [AFF] feature.

- (4) [[DE]]=λPλx.P(x)

DE discharges a theta role to whatever it combines with. When DE is DP-internal, it discharges the possessor role of the possessum and when it is in the verbal domain, it discharges the affectee role. The movement of DE is driven by Enlightened Self Interest (Lasnik 1995) to discharge the affectee role of the inchoative head.

**Assumption II** Second, theta roles are stored in the predicates in the sense of Parsons (1990) and some theta roles are hidden in the sense of Bach & Cooper (1978):

- (5) a. [[Inch]]= ∃ e.Become(e)&Affectee(x,e)  
b. [[lian]]= ∃ y.Face(y)&Possessor(x,y)

**Predictions** First, the possessive subject must be the main possessor:

- (6) a. Zhangsan de didi de lian hong le.  
 Zhangsan DE brother DE face red ASP “Zhangsan’s brother’s face becomes red.”  
 b. \*Zhangsan hong le didi de lian.  
 Zhangsan red ASP brother DE face “Zhangsan’s brother’s face becomes red.”  
 c. Zhangsan de didi hong le lian.  
 Zhangsan DE brother red DE face “Zhangsan’s brother’s face becomes red.”

(6b) is excluded as *Inch.* always attracts the closest DE head to discharge its AFF. This also explains why the possessor must be alive, as in the contrast between (7a) and (7b):

- (7) a. Zhangsan si le ranhou Zhangsan de lian momingqimiao-di hong le.  
 Zhangsan die ASP then Zhangsan POSS face unknowing-ly red ASP  
 “Zhangsan died and out of no reason Zhangsan’s face becomes red.”  
 b. \*Zhangsan si le ranhou Zhangsan momingqimiao-di hong le lian.  
 Zhangsan die ASP then Zhangsan unknowing-ly red ASP face  
 “Zhangsan died and then out of no reason Zhangsan’s face becomes red.”

This strongly indicates that *Zhangsan* bears an additional affectee role (Haspelmath 1999). In our account, this is because DE discharges the hidden affectee role in the inchoative head. Additionally, this also correctly predicts the possessum requirement in which body-part relation is preferred:

- (8) a. \*Zhangsan hong le erzi/tongshi.  
 Zhangsan red ASP son/colleague “Zhangsan’s son/colleague becomes red.”  
 b. Zhangsan hong le lian/jiao.  
 Zhangsan red ASP face/foot “Zhangsan’s face/foot becomes red.”

In our account, *DE* raises to little *v* by way of *V* which is occupied by the adjective *hong* “red”. When *DE* is at *V*, it discharges for the 2<sup>nd</sup> time the theme role of *hong* “red” (despite being already saturated by Zhangsan’s face in the small clause). Thus, when *Zhangsan* moves cyclically up, it also saturates the theme role of *hong* “red” (resulting in double theme to *hong* “red”). This is reasonable as Zhangsan’s face becoming red entails Zhangsan’s becoming red, while Zhangsan’s son becoming red does not entail Zhangsan’s becoming red. (8a) is thus semantically illformed.

Finally, our proposal is consistent with the overt form:

- (9) Zhangsan bian de hong le lian.  
 Zhangsan become DE red ASP face “Zhangsan’s face becomes red.”

When the inchoative verb *bian* “become” is overtly realized, *DE* shows up.

**Significance** This proposal solves the theoretical conflict between raising and multiple theta roles, and provides a novel perspective on similar cases in a wide range of languages.

## References

- Bach & Cooper. 1978. The NP-S analysis of relative clauses and compositional semantics. • Chomsky. 1981. Lectures on government and binding. • Deal. 2013. Possessor raising. • Duarte, & Oliveira. 2018. External possession in portuguese. Verbs, movement and prepositions. • Guéron. 1985. Inalienable possession, PRO-inclusion and lexical chains. • Haspelmath. 1999. External possession in a European areal perspective. • Hole. 2004. Extra argumentality–A binding account of ‘possessor raising’ in German, English and Mandarin. • Hornstein. 1999. Movement and control. • Landau. 1999. Possessor raising and the structure of VP • Lasnik. 1995. Verbal morphology: Syntactic structures meets the Minimalist Program • Lee-Schoenfeld. 2006. German possessor datives: Raised and affected. • Rodrigues. 2010. Possessor raising through thematic positions.