

The Distributive Quantifier GE in Mandarin Chinese

This paper explains the dilemma between the post-object *gei* phrase in the dative construction and the distributive quantifier [DQ] *ge* ('each') in Mandarin Chinese. In Soh (2005), the DQ *ge* is argued to adjoin to *vP* or VP position, as shown in (1) and (2).

(1) [TP San-ge xuesheng_k [_{vP} **ge** [_{vP} t_k mai-le_i [_{FP} wu-dou hua_j [_{VP} t_i t_j]]]].

(2) [TP Zhangsan_k [_{vP} t_k da-le_i [_{FP} na-xie ren_j [_{VP} **ge** [_{VP} yi-quan [_{VP} t_i t_j]]]].

Furthermore, Soh (2005) proposes that the DQ *ge* can be used to distinguish the structures of the double object construction [DOC] and the dative construction in Mandarin Chinese. As shown in examples (3) and (4), *ge* can emerge before the DO in the DOC, while it is unacceptable for *ge* to appear before the IO in the dative construction.

(3) Zhangsan song-le [san-ge xuesheng] **ge** [shi-ben shu]. (DOC)

(4) Zhangsan song-le [shi-ben shu] (***ge**) [gei san-ge xuesheng]. (dative)

The *vP* structures for (3) and (4) are shown (5) and (6) respectively. In the DOC in (5), *ge* adjoins to the lower VP, hence it is grammatical. For the dative in (6), *ge* cannot adjoin to a PP. The structural difference between the DOC and the dative construction, therefore, can be distinguished by the DQ *ge*.

(5) [_{vP} subject *v* [_{VP} IO V [_{VP} **ge** [_{VP} V DO]]] (DOC)

(6) [_{vP} subject *v* [_{VP} DO (***ge**) [_{PP} P IO]]] (dative)

Recently, Lin and Huang (2015) argue that the post-object *gei* in (4) is not a preposition, but a verb, and it subcategorizes a VP (see also Huang and Ahrens 1999). Their *vP* structure for (4) without the DQ *ge* is shown in (7). In (7), the post-object *gei* phrase is proposed to be a *vP*, and there is a VP inside. This then poses a problem to the analysis of the DQ *ge*. While all the conditions are satisfied (e.g., the preceding object is plural), why *ge* cannot adjoin to a *vP* or a VP post-object *gei* phrase in a dative construction?

(7) [_{vP} Zhangsan_k song-le_i [_{VP} shi-ben shu_j t_i [_{vP} OP_j [_{VP} PRO_k gei_x [_{VP} san-ge xuesheng t_x t_j]]]]]

To solve this dilemma, I propose that the licensing conditions of the DQ *ge* should be further refined. Ueda (1886) proposes that the floating quantifier can be subject-oriented or object-oriented. Structurally in (1) and (2), one can see that when the plural antecedent is a subject, the DQ *ge* adjoins to the *vP* position. When the plural antecedent is an object, the DQ *ge* adjoins to the VP position. If the condition of subject/object orientation is also added to the licensing requirements of the DQ *ge*, we then have a way out of the dilemma. In (7), clearly the *vP* and VP are possible adjoined positions. However, if the DQ *ge* is adjoined to the VP position, a wrong word order will be derived as in (8).

(8) *Zhangsan song-le shi-ben shu gei **ge** san-ge xuesheng.

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As for the *vP* adjunction, we can derive the correct word order. However, notice that while the DQ adjoins to *vP*, the preceding plural NP is an object. This then causes a mismatch. Hence, while *ge* may be adjoined to the verb phrase in both DOC and dative construction, the incompatibility of *ge* appearing in the dative construction in fact results from its subject/object-orientation property.