

## Double object construction

Waltraud Paul wpaul@ehess.fr  
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The double object construction involves so-called *ditransitive* verbs, i.e. verbs with both a direct object (DO) and an indirect object (IO), to use traditional terminology here. Ditransitive verbs (also called double object verbs) can be further divided into three classes: verbs of giving or *donatory* verbs with the IO as recipient (*sòng* 送 ‘give as a present’, *mài* 賣 ‘to sell’, *huán* 還 ‘to give back’, *dì* 遞 ‘to pass on’ etc.), *verbs of taking* with the IO as source (*tōu* 偷 ‘steal’, *piàn* 騙 ‘cheat’ etc. ), and *verbs of communication* (*wèn* 問 ‘to ask’, *gàosu* 告訴 ‘to tell’ etc.) with the IO as goal.

- (1) 他賣了美麗一台電腦  
Tā mài-le Měili yī-tái diànnǎo  
3SG sell -PERF Mary 1-CL computer  
‘He sold Mary a computer.’
- (2) 他偷了美麗一台電腦  
Tā tōu -le Měili yī-tái diànnǎo  
3SG steal-PERF Mary 1-CL  
‘He stole Mary a computer.’
- (3) 他告訴李四你的秘密了  
Tā gàosu Lǐsì nǐ de mimi le  
3SG tell Lisi 2SG SUB secret PART  
‘He told Lisi your secret.’

(For comprehensive lists of these three classes in Mandarin with 15-30 verbs per class, cf. Lǐ Líndìng 李臨定 1986: 53-63; Zhu Dexi 朱德熙 1979: 81-82).

The DOC has always puzzled and fascinated syntacticians, because in many languages it displays an exceptional behaviour when compared with monotransitive verbs taking one object only (cf. the detailed overview in Emonds and Whitney 2006). This is also the case in Chinese where the DOC had to be “ruled in” by “marked features of the verbs, which require both constituents following them to be subcategorized elements” (C.-T. James Huang 1982: 96-97, note 16). This additional assumption was necessary because otherwise the DOC systematically violated C.-T. James Huang’s (1982: 41) *Phrase Structure Condition*, which allowed one constituent in postverbal position only.

The subdivision into three semantic classes (roughly ‘give’ vs. ‘take’ vs. ‘tell’ verbs) correlates with different syntactic properties, visible in the *bǎ* construction and the passive. (For donatory verbs, the presence of verb-adjacent *gěi* is preferable here; its status is examined below).

- (4a) 他把一台電腦賣給了美麗  
Tā bǎ yī tái diànnǎo mài-gěi-le Měili  
3SG BA 1 CL computer sell -GEI-PERF Mary  
‘He sold Mary a computer.’

- (4b) \*他把美麗賣給了一台電腦  
 \*Tā bǎ Měilì mài-gěi-le yī tái diànnǎo  
 3SG BA Mary sell-GEI-PERF 1 CL computer
- (4c) 這台電腦被他賣給了美麗  
 Zhè tái diànnǎo bèi tā mài-gěi-le Měilì  
 this CL computer PASS 3SG sell-GEI-PERF Mary  
 ‘This computer was sold by him to Mary.’
- (4d) \*美麗被他賣給了一台電腦  
 \*Měilì bèi tā mài-gěi-le yī tái diànnǎo  
 Mary PASS 3SG sell-GEI-PERF 1 CL computer  
 (‘Mary was sold a computer by him.’)
- (5a) 他偷了美麗一台電腦  
 Tā tōu -le Měilì yī-tái diànnǎo  
 3SG teal-PERF Mary 1-CL computer  
 ‘He stole Mary a computer.’
- (5b) \*他把一台電腦偷了美麗  
 \*Tā bǎ yī tái diànnǎo tōu -le Měilì  
 3SG BA 1 CL computer steal-PERF Mary
- (5c) \*他把美麗偷了一台電腦  
 \*Tā bǎ Měilì tōu -le yī tái diànnǎo  
 3SG BA Mary steal-PERF 1 CL computer
- (5d) \*這台電腦被他偷了美麗  
 \*Zhè tái diànnǎo bèi tā tōu -le Měilì  
 this CL computer PASS 3SG steal-PERF Mary
- (5e) 美麗被他偷了一台電腦  
 Měilì bèi tā tōu -le yī tái diànnǎo  
 Mary PASS 3SG steal-PERF 1 CL computer  
 ‘Mary was stolen a computer by him.’
- (6a) 他把你的秘密告訴李四了  
 Tā bǎ nǐ de mimi gàosu Lǐsì le  
 3SG BA 2SG SUB secret tell Lisi PART  
 ‘He told Lisi your secret.’
- (6b) \*他把李四告訴你的秘密了  
 \*Tā bǎ Lǐsì gàosu nǐ de mimi le  
 3SG BA Lisi tell 2SG SUB secret PART
- (6c) 你的秘密被他告訴李四了  
 Nǐ de mimi bèi tā gàosu Lǐsì le  
 2SG SUB secret PASS 3SG tell Lisi PART  
 ‘Your secret was told to Lisi by him.’



Importantly, as demonstrated by Zhū Déxī 朱德熙 (1979, 1983) - *the* indispensable literature on this issue - not all verbs acceptable in the dative construction are likewise acceptable in the DOC. (For an extensive discussion of Zhu (1979, 1983), cf. Paul (1988a,b.)) Donatory verbs in the strict sense are acceptable in the ‘V IO DO’ pattern, and verb-adjacent *gěi* 給 is optional for them (compare (7) with (8)). Verb-adjacent *gei* is, however, obligatory in the DOC for what I call *donatory verbs by extension*, corresponding to Zhu’s (1979: 85) verb class  $V_{a/c}$ , which besides e.g. *jì* 寄 ‘send’ and *xiě xìn* 寫(信) ‘write (a letter)’ also include transitive verbs involving the meaning of transfer only optionally.

- (11) 我寄\*(給)他三個包裹  
 Wǒ jì \*(-gěi) tā sān-ge bāoguǒ  
 1SG send -GEI 3SG 3 -CL parcel  
 ‘I sent him three parcels.’
- (12) #我沏給他一杯茶  
 #Wǒ qī -gěi tā yī-bēi chá  
 1SG brew-GEI 3SG 1-cup tea  
 ‘I made him a cup of tea.’
- (13) #我打給了他一件毛衣  
 #Wǒ dǎ -gěi -le tā yī-jiàn máoyī  
 1SG knit-GEI-PERF 3SG 1-CL sweater  
 ‘I knitted him a sweater.’

Note that this class is open to some variation (signaled by #). While like Zhu Dexi (1979: 82), more conservative speakers only allow for a handful of verbs here (e.g. *yǎo tāng* 舀湯 ‘ladle out soup’, *dào chá* 倒茶 ‘pour tea’ etc.) and accordingly reject (12) and (13), younger speakers have extended that class to include more verbs and accept (12) and (13). Crucially however, even if the class membership for donatory verbs by extension may vary across speakers, this does not challenge the existence of that class itself.

For the dative construction ‘S V DO [ *gěi* IO]’, native speakers’ judgements are more homogeneous. Besides for (both types of) donatory verbs (cf. (9), (14)), the dative construction is systematically available for transitive verbs optionally involving the meaning of transfer. With the latter type of verbs, the PP ‘*gěi* NP’ is interpreted simultaneously as goal and beneficiary, i.e. the individual referred to by the NP benefits from the action, because its result (the tea or sweater in (15) and (16)) is transferred to her/him.

- (14) 我寄了三個包裹給美麗  
 Wǒ jì -le sān ge bāoguǒ [gěi Měilì]  
 1SG send-PERF 3 CL parcel to Mary  
 ‘I sent three parcels to Mary.’
- (15) 我沏一杯茶給美麗  
 Wǒ qī yī bēi chá [gěi Měilì]  
 1SG brew 1 cup tea to Mary  
 ‘I make Mary a cup of tea.’

- (16) 我打了一件毛衣給美麗  
 Wǒ dǎ -le yī jiàn máoyī [gěi Měilì]  
 1SG knit-PERF 1 CL sweater to Mary  
 ‘I knitted Mary a sweater.’

Against the backdrop of these facts, we can now evaluate a selection of the proposals in the literature.

Y.-H. Audrey Li 李艷惠 (1990: 110) analyses both instances of postverbal *gěi* as verbs. In the DOC ‘V-*gěi* IO DO’, V-*gěi* is considered a compound verb to which the IO adjoins, thus forming a complex verb capable of assigning case to the DO. The dative construction ‘V DO [*gěi* IO]’, by contrast, is claimed to instantiate a serial verb construction. This overall verbal analysis of *gěi* is also adopted by Huang, Li and Li (2009: 29-31).

C.-C. Jane Tang 湯志貞 (1990: 268) only examines the dative construction ‘V DO [*gěi* IO]’. She proposes a structure where the *gěi* PP is the complement of a lower PredP (cf. Bowers 1993), which itself is complement of the ditransitive verb. The DO in Spec, VP controls PRO in Spec, PredP:

- (17) [<sub>PREDP</sub> V [<sub>VP</sub> DO<sub>i</sub> [<sub>V'</sub> [<sub>PREDP</sub> PRO<sub>i</sub> [<sub>PRED'</sub> Pred<sup>o</sup> [<sub>PP</sub> *gěi* IO]]] t<sub>v</sub> ]]]

In a similar vein, Cheng et al. (1999) claim that ‘*gěi* IO’ in the dative construction underlyingly involves a secondary predication on the DO, akin to English purposive clauses (*I brought 30 dollars to give (to) him*).

- (18) DP V [<sub>VP2</sub> DO [<sub>V2'</sub> [<sub>V<sub>cause</sub></sub> *gěi*] OP<sub>i</sub> [<sub>VP3</sub> IO [<sub>V3'</sub> HAVE t<sub>i</sub> ]]]]]

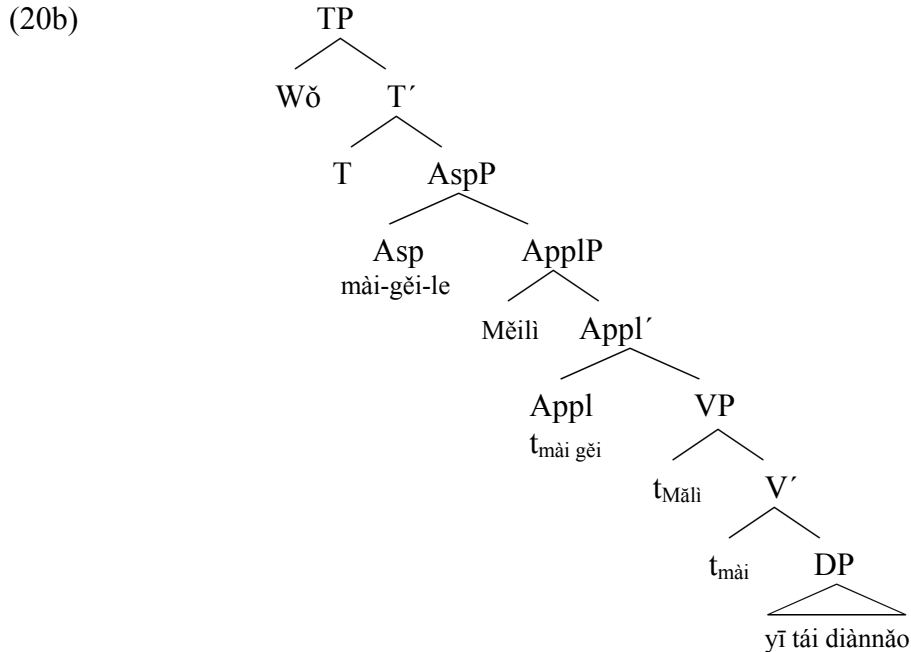
*Gěi* ‘give’ heading VP2 results from incorporating the abstract verb of possession ‘have’ to ‘cause’; whether this happens in the lexicon or in syntax is left open. The same incorporation is postulated for *gěi* in the DOC ‘V-*gěi* IO DO’, where *gěi* in turn incorporates to the lexical verb, resulting in a compound [<sub>V<sup>o</sup></sub> V-*gěi*]. Note that this step requires right adjunction of *gěi* to the verb, *gěi* in (18) originating in a position *below* the lexical verb.

The new analysis presented here differs from these earlier proposals. As already mentioned above, ‘*gěi* IO’ in the dative construction ‘S V DO [<sub>PP</sub> *gěi* IO]’ is analysed as a PP, basically following C.-C. Jane Tang (1990). The alleged role of this *gěi* PP as complement of a lower Pred, however, is in contradiction with the general inability of PPs to function as (primary or secondary) predicates (cf. Djamouri and Paul 1997, 2009) and therefore not adopted. If, as claimed by Y.-H. Audrey Li (1990), *gěi* were a verb here, it would be wrongly expected to allow for aspect suffixes such as perfective *-le* (also cf. Zhang Shi 1990):

- (19) 我賣(了)一台電腦給(\*了)美麗  
 Wǒ mài(-le) yī tái diànnǎo [<sub>PP</sub> gěi (\*-le) Měilì].  
 1SG sell- PERF 1 CL computer to/for -PERF Mary  
 ‘I sold a computer to Mary.’

Turning to the DOC ‘V-*gěi-le* IO DO’, *gěi* is neither a preposition nor a verb, but an applicative (functional) head (cf. Marantz 1993, Pylkkänen 2008) *above* the lexical VP, hosting the recipient argument in its specifier (cf. Georgala, Paul and Whitman 2008; Paul and Whitman 2010). Accordingly, the sequence ‘V-*gěi*’ is obtained in the syntax.

- (20a) 他賣給了美麗一台電腦 (=8)  
 Tā mài-gěi-le Měili yī-tái diànnǎo  
 3SG sell -GEI-PERF Mary 1-CL computer  
 ‘He sold Mary a computer.’



This analysis can account for the order ‘V-gěi’: the lexical verb (*mài*) raises to the Appl head *gěi* and adjoins to its left, as is standard for head adjunction (cf. Kayne 1994, Baker 1996; contra Cheng et al.’s (1999) approach which requires *right* adjunction). When an aspect suffix is present, ‘V-gěi’ further raises and left-adjoins to Asp°, resulting in the sequence ‘V-gěi-le’ (for V-to-Asp° movement in Chinese, cf. Lin Tzong-hong 林宗宏 2001). The position of the perfective aspect suffix *-le* in ‘V-gěi-le IO DO’ invalidates the traditional Chinese analysis of *gěi* as a preposition here: V [PP *gei* IO] DO.

The derivation of the ‘V-gěi’ sequence in the *syntax* also allows to explain the contrast with verbal compounds in ‘A-not-A’ questions (cf. Huang 1982, ch. 4.3 for this term and further discussion):

- (21a) 他喜歡不喜歡數學?  
 Tā [v° xǐ -huān] bù [v° xǐ -huān] shùxué ?  
 3SG like NEG like mathematics  
 ‘Does she like mathematics?’

- (21b) 他喜不喜歡數學?  
 Tā xǐ- bù xǐ-huān shùxué ?  
 3SG like NEG like mathematics  
 ‘Does she like mathematics?’

Though it is difficult to come up with separate glosses for *xǐ* and *huān*, *xǐ-huān* is clearly analyzable, as witnessed by the appearance of *xǐ* and *huān* in other compounds: *huān-hū* 歡呼 ‘cheer’, *xǐ-ài* 喜愛 ‘be fond of’.

(22a) \*他還給不還給你錢?  
 \*Tā huán -gěi bù huán -gěi nǐ qián?  
 3SG return-GEI NEG return-GEI 2SG money

(22b) 他還不還給你錢?  
 Tā huán bù huán -gěi nǐ qián ?  
 3SG return NEG return-GEI 2SG money  
 ‘Will he return the money to you?’

While for verbal compounds, either the entire compound (cf. (21a)) or only its first member may precede negation (cf. 21b), this choice does not exist in the DOC, i.e. the sequence ‘V-gěi’ cannot be treated as a unit (cf. (22a)). This straightforwardly obtains when assuming that ‘V-gěi’ is built in the syntax, and not in the lexicon like verbal compounds.

Importantly, in this new analysis using Applicative Phrase, the recipient argument (IO) does not remain in the lexical VP (as assumed in all preceding accounts), but raises to the specifier of ApplP. This is confirmed by the position of distributive adverbial quantifiers such as *měi-rén* 每人 ‘everyone’ or *yī-rén* 一人 ‘each’ to the right of the IO in the DOC:

(23) 我送給孩子們[每人一百塊錢  
 Wǒ sòng-gěi [APPLP háizimen [VP měi-rén [VP t<sub>haizimen</sub> [yībǎi kuài qián]]]  
 1SG give-GEI children every(one) 100 CL money  
 ‘I gave the children each a hundred dollars.’

(24) 校長分給我們[每人/一人]十個大學生  
 Xiàozhǎng fēn -gěi wǒmen [měi-rén /yī-ren] [shí ge dàxuéshēng]  
 principal allot-GEI 1PL every(one)/each 10 CL student  
 ‘The principal allotted us each 10 students.’

In order for the adverbial quantifier to scope over the IO, the latter must have originated in a position below the adverb and moved over it, exactly as assumed in the present account where the IO raises from Spec,VP to Spec,AppLP.

The observation that a distributive quantifier may intervene between the IO and the DO in the DOC goes back to Kung (1993: 182) and is taken up by Soh (2005). Note, however, that the adverb *gè* ‘each’ 各 used by both is judged unacceptable by many native speakers when in the position between the indirect and the direct object. Instead, *měiren* 每人 ‘every(one)’ or *yī rén* 一人 ‘each’ must be used. Furthermore, in Kung’s (1993) small clause analysis of the DOC, [VP V [PredP IO [Pred<sup>o</sup> gè-Pred<sup>o</sup> DO]]], where *gè* ‘each’ adjoins to a null verb heading Predicate Phrase *below* the IO, it is not possible for *gè* ‘each’ to scope over the IO. The applicative analysis, however, provides a satisfying account of the DOC with *three* postverbal constituents, a case which has puzzled Chinese linguists for a long time. (Cf. among others Li Linding (1986: 227) who explicitly notes the distributive meaning observed here.)

To conclude, although the account proposed here implements basic insights of Pylkkänen’s (2008) Applicative Phrase, there exists an important difference between the two approaches. More precisely, *gěi* as applicative head occupies a position *above* the lexical VP, in contrast to Pylkkänen who posits an applicative head *inside* the VP (her *low applicative*) for ‘theme-

recipient' DOC. Barring head adjunction to the right, Pyllkkänen's approach predicts that the low applicative head is realized as a verbal *prefix* or as a particle in VP. However, as also noted by Emonds and Whitney (2006: 106), cross-linguistically applicative affixes are generally *suffixes*, exactly as proposed for Chinese *gěi*.

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