A Puzzle in Chinese Dative Shift

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This paper investigates the possible alternations between Dative Constructions and Direct Object Constructions in Chinese.\(^1\) It argues that the semantic constraint on such alternations as proposed by Pinker (1989), Gropen et al. (1989), and Rappaport Hovav & Levin (2008) has to be coupled with syntactic constraints associated with the subcategorization framework of the dative verb in the lexicon. While English dative verbs can subcategorize for theme, goal, or benefactive, potential dative verbs in Chinese can only subcategorize for theme or goal. The limited subcategorization framework of these dative verbs reveals that Chinese does have limited argument structure in the lexicon (contra Lin’s 2001).

1. Introduction

Dative constructions normally involve an agent, a theme, a goal (1a) or a benefactive (1b). The goal and the benefactive are usually after the theme (1):

(1) Dative Construction (DC)  
\[ \begin{align*}  
a. & \quad \text{I sent a post card to John.} 
   \quad <\text{agent theme goal}> 

b. & \quad \text{I bought a post card for John.} 
   \quad <\text{agent theme benefactive}> 
\end{align*} \]

Sometimes, dative shift (DS) can take place in which the goal or the benefactive can be ‘scrambled’ to a position in front of the theme and the resulting construction behaves on a par with Double Object Constructions (DOC):

(2) Dative Shift (DS) \rightarrow Double Object Construction (DOC)  
\[ \begin{align*}  
a. & \quad \text{I sent a post card to John.} \quad \rightarrow \quad \text{I sent John a post card.} 

b. & \quad \text{I bought a post card for John.} \quad \rightarrow \quad \text{I bought John a post card.} 
\end{align*} \]

\(^1\) “Chinese” is used to refer to Mandarin Chinese in this paper.
Traditionally, a semantic constraint has been proposed on DS: DOC and DC alternation can take place only if there exists an intended (sometimes factual) caused possession between the theme argument and the goal/benefactive argument, i.e., the goal/benefactive argument must be the intended (sometimes the factual) possessor of the theme (Pinker, 1898; Gropen et al., 1989; Rappaport Hovav & Levin, 2008).

In our examples (1-2), goals and benefactives can be both interpreted as recipients. Hence, they are intended possessors of the theme, ‘the post card’. In other words, John will end up with potentially or factually owning the post card. Since an intended caused possession between the theme argument, ‘John’, and the goal/benefactive argument, ‘the post card’, can be established, DS can take place in (1-2). In cases where the intended caused possession relationship cannot be formed, DS is unlikely to happen in (3-4):

(3)  a.  I sent the salesman to the devil.
    b.*I sent the devil the salesman. (Harley 2003: 37, ex. (14))

(4)  a.  I sent a post card to Paris.
    b.*I sent Paris a post card.

In (3), the intended caused possession cannot be established as in the idiomatic usage of ‘to send somebody to the devil’, there is no possession relationship between ‘the devil’ and that ‘someone’ such as ‘the salesman’. Neither can the intended caused possession relationship be established in (4): the intended caused possessor is inanimate. Hence, it is not a legitimate possessor, which according to our world knowledge, must be minimally [+animate]. The sentence (4b) cannot be grammatical unless you are talking about ‘sending a post card to Paris Hilton, the great-granddaughter of Conrad Hilton who is the founder of the Hilton empire.

2. The Chinese Dative Shift Puzzle

Chinese, in contrast with English, allows verbs that select a goal to alternate between DC and DOC, as in (5a-b), but not a benefactive argument, as in (6a-b). The example (6b), if grammatical, can only be interpreted as “I bought a post card from Zhangsan”, in which ‘Zhangsan’ becomes the source from whom I got the post card. If ‘Zhangsan’ is considered as the benefactive (i.e., as in (6a)), it is ungrammatical.

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2 There are exceptions in the generalization that the intended possessor must be animate, e.g., give the house a coat of paint and give the page a number. See Melntyre (2006) and Rappaport Hovav & Levin (2008) for further discussions.
(5) V + theme + goal: possible with DS\(^3\)
   a. *Wo song le yi-zhang mingxinpian gei Zhangsan.
      I send perf. one-CL postcard to Zhangsan
      ‘I sent a postcard to Zhangsan.’
   b. *Wo song le Zhangsan yi-zhang mingxinpian.
      I send perf. Zhangsan one-CL postcard
      ‘I sent Zhangsan a postcard.’

(6) V + theme + benefactive: impossible with DS
   a. Wo mai le yizhang mingxinpian gei Zhangsan.
      I buy perf. one-CL postcard for Zhangsan
      ‘I bought a postcard for Zhangsan.’
   b. *Wo mai le Zhangsan yi-zhang mingxinpian.
      I buy perf. Zhangsan one-CL postcard
      Intended: ‘I bought Zhangsan a postcard.’

In literature, two other interacting constraints have been proposed to account for certain impossibility of the alternation between DC and DOC (Arnold et al., 2000; Davidse, 1996; Givón 1984; Polinsky, 1996; Ransom, 1979; Snyder, 2003; Thompson, 1990, 1995; Wasow, 1997, 2002; Rappaport Hovav & Levin, 2008; inter alia). One is related to the information structure (7a) and the other concerns the prosodic Heaviness principle (7b):

(7) a. Information structure: Given material comes before new materials.
   b. Heaviness: Heavy material comes last.

Take (8a) for example. Since [+human] element is in general treated as ‘given’ in literature (it bears a closer relationship to us), the DOC construction in which ‘Mailer’ is put in front of the theme ‘an idea for a book’ is appropriate. The theme (‘an idea for a book’) is also ‘heavier’ than the goal (‘Mailer’). Both (7a) and (7b) are satisfied. In contrast, the DC counterpart of (8a) as shown in (8b) is inappropriate. It violates both (7a) and (7b): the given material (‘Mailer’) does not come before new materials (‘an idea for a book’) and the heavy material (‘an idea for a book’) does not come last. The acceptability of (8b) can be significantly improved if we make the goal heavier as indicated in (8c):\(^4\)

\(^3\) The following acronyms are used in this paper: CL = classifier, perf. = perfective, Mod = modal particle.

\(^4\) ‘Every journalist’ is a quantified [+human] element. It does not really count as purely ‘given’. So (7a) can also be vacuously avoided in (8c).
(8) a. Nixon’s behavior gave Mailer an idea for a book.
   b. # Nixon’s behavior gave an idea for a book to Mailer.
   c. Nixon’s behavior gave an idea for a book to every journalist living in New York City in the 1970s.

(Snyder 2003: 35, exx. (47a,b), (48))

But in our Chinese examples, neither (7a) nor (7b) can be ultimately responsible for the ungrammaticality in (6b). Compare (5) and (6). The only difference between them is the verb (song ‘to send’ in (5) versus mai ‘to buy’ in (6)). If constraints in (7) are applied to (5) and (6), it is hard to explain why DS in (5) is acceptable while that in (6) is not as they can both equally satisfy or violate (7).

In this paper, we argue that the solution lies in the verb itself. We will address questions like ‘what exactly is the difference between Chinese mai (‘to buy’) and English buy? Are they two totally different verbs or not’, etc. We argue that the subcategorization framework in the lexicon is responsible for certain (im)possibility of DS and it can be cross-linguistically parameterized.

3. The Hypothesis

In general, we propose that the semantic constraint on the alternation of DC and DOC as proposed by Pinker (1989), Groepen et al. (1989) and Rappaport Hovav & Levin (2008) has to be coupled with syntactic constraints associated with the subcategorization framework of the dative verb in the lexicon. Take English dative verb send and buy, for example. Their subcategorization framework is shown in (9a) and (9b), respectively. They are both verbs (of the category V) that select two internal arguments (a theme and a goal/benefactive). Syntactically, these two arguments are realized as an NP (usu. the theme) and a PP (usu. the goal/benefactive). When projected into narrow syntax, the subcategorization will form a VP in which one internal argument (usu. the goal/benefactive PP) becomes the complement of the dative verb and the other (usu. the theme NP), the specifier of the VP:

(9) a. send: V, [ _NP, PP]
   b. buy: V, [ _NP, PP]
   c. VP
      /\     \\
     /     \  \\
   NP  \    /  \\
  theme  V'   \\
   /     \   \\
   /      \  \\
 V   PP   |  send/buy  goal/benefactive
Since both the theme and the goal/benefactive are the core (internal) arguments of the dative verb (i.e., they are both subcategorized by the verb), it can be said that theme, goal and benefactive argument are all 'lexicalized' in English.

For the Chinese examples (5-6), we propose that *song* ‘to send’ behaves like English *send* and *buy* in that it selects two internal arguments: a theme and a goal, realized syntactically as an NP and a PP, respectively:

(10) Chinese dative verbs:
   a. *song* ‘to send’: V, [ __ NP, PP]

   b. 
      \[ \text{VP} \]
      \[ \text{NP} \]
      \[ \text{theme} \]
      \[ \text{V'} \]
      \[ \text{V} \]
      \[ \text{PP} \]
      \[ \text{song} \]
      \[ \text{goal} \]

In other words, both theme and goal are lexicalized in Chinese. However, unlike English, we propose that benefactive is NOT lexicalized in Chinese. Under this proposal, Chinese verb *mai* ‘to buy’ does not really parallel with English *send* or even *buy*. Since benefactive is not subcategorized by verbs in Chinese, what looks like a dative verb is actually a surface illusion. Verbs like *mai* ‘to buy’ in Chinese only subcategorize for a theme. The benefactive is adjoined to VP later in syntactic derivation (as a syntactic adjunct):

(11) Chinese *mai* ‘to buy’
   a. subcategorization framework: *mai*: V, [ __ NP]
   b. The relevant structure for (6a)
      \[ \text{VP} \]
      \[ \text{PP} \]
      \[ \text{benefactive} \]
      \[ \text{VP} \]
      \[ \text{V} \]
      \[ \text{NP} \]
      \[ \text{mai} \]
      \[ \text{theme} \]

Under this analysis, *mai* ‘to buy’ in Chinese is not a genuine dative verb.

To account for the data in (5-6), we further propose that to allow for DS, the goal, the benefactive, and the theme argument in the DC all have to be within the relevant VP of the dative verb. This is a syntactic constraint. Essentially, it means that only argument
in one object position can alternate with another argument in a ‘similar’ object position: In English, both the goal and the benefactive in the DC are core (subcategorized) arguments of the verb within the relevant VP. Syntactically, they are both genuine objects (i.e., the indirect object) similar to the theme (i.e., the direct object). Hence, the theme and both the goal and the benefactive can alternate (i.e., to undergo DS). In Chinese, however, only the goal is a core (subcategorized) argument within the VP and the benefactive argument is adjoined to VP as an adjunct (not subcategorized by the verb in the lexicon). Therefore, the benefactive (as an adjunct) cannot alternate with the theme argument (the direct object), hence, the ungrammaticality of (6b).

More examples to support this argument are provided below:

(12) Goal is lexicalized in Chinese (genuine DC):
   a. Wo gei le yi-zhang mingxinpiangei Zhangsan.
      I give perf. one-CL postcard to Zhangsan
      ‘I gave a post card to Zhangsan.’
   b. Wo ji le yi-ben shu gei Zhangsan.
      I mail perf. one-CL book to Zhangsan
      ‘I mailed a book to Zhangsan.’
   c. Wo liu le yi-zhang mingpian gei Zhangsan.
      I leave perf. one-CL business-card to Zhangsan
      ‘I left a business card to Zhangsan.’

(13) Dative shift (possible DOC with verbs encoding a lexicalized goal as in (12)):
   a. Wo gei le Zhangsan yi-zhang mingxinpian.
      I give perf. Zhangsan one-CL postcard
      ‘I gave Zhangsan a postcard.’
   b. Wo ji le Zhangsan yi-ben shu.
      I mail perf. Zhangsan one-CL book
      ‘I mailed Zhangsan a book.’
   c. Wo liu le Zhangsan yi-zhang mingpian.
      I leave perf. Zhangsan one-CL business-card
      ‘I left Zhangsan (with) a business card.’

(14) Benefactive is not lexicalized in Chinese (putative DC):
   a. Wo jian le yi-dong fangzi gei Zhangsan.
      I build perf. one-CL house for Zhangsan
      ‘I built a house for Zhangsan.’
b. *Wo jian le Zhangsan yi-dong fangzi.
I build perf. Zhangsan one-CL house
Intended: ‘I built Zhangsan a house.’

c. *Wo zhi le Zhangsan yi-jian maoyi.
I knit perf. Zhangsan one-CL sweater
Intended: ‘I knitted Zhangsan a sweater.’

Examples (12-13) concerns the goal argument in Chinese. As (13) indicates, DS can take place. The benefactive argument (14), on the other hand, cannot allow for DS (15).5

4. Lin (2001) Revisited

Our analysis contrasts with Lin’s (2001) proposal that Chinese does not have argument structure (subcategorization) in the lexicon. The dative and double object alternation shows that Chinese allows partial subcategorization in the lexicon.

5 There might be slight difference in dialectical judgments in (12-15). Some bilateral verbs like jie ‘to loan/lend’ seems to be counter examples to our generalization:

   a. Wo jie le 100 kuai qian gei Zhangsan.
      I lend perf. 100 Yuan money to Zhangsan
      ‘I lend 100 Yuan to Zhangsan.’

   b. Wo jie le Zhangsan 100 kuai qian.
      I lend perf. Zhangsan 100 Yuan money
      ‘I lend Zhangsan 100 Yuan.’

Although Zhangsan is treated as the recipient of the money and potentially, he can be the beneficiary. But this ‘beneficiary’ argument behaves more like a goal instead of a benefactive as the English translation in (a) indicates. If jie (‘to loan/lend’) is treated as a verb that selects a goal, it actually supports the generalization that goal and theme can alternate in Chinese while benefactive and theme cannot.
According to Lin (2001), objects in Chinese are non-selective: 6

(16) The non-selectiveness of objects in Chinese (examples abridged from Lin 2001):

a. *Laowang fang le yi-ben shu zai zhuo-shang.* (Theme) light v: ⌀
   ‘Laowang put a book on the table.’

b. *Zhexie shu zonggong fang le san-ge xiangzi.* (Instrument) light v: USE
   ‘It takes three boxes altogether to put these books in.’

c. *Zhexie shu fang wo-jia.* (Location) light v: AT₁
   ‘These books [can be] kept in my house.’

d. *Zhe-wan mian fang le zheng-de zaoshang.* (Time) light v: AT₂
   ‘This bowl of noodle has been here for the whole morning.’

e. *Zhexie shu bu-shi fang hao-kan de.* (Reason) light v: FOR
   ‘These books are not there for good-looking.’

Thus, according to Lin (2001), verbs in Chinese like *fang* ‘to put’ do not have any subcategorization framework in the lexicon. All the ‘complements’ are selected by various kinds of *light* verbs later in the overt syntax. 7 The ‘subcategorization framework’ of *fang* ‘to put’ is shown (17a) and selection of various arguments by various relevant light verbs is shown in (17b):

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6 We ignore the non-selectiveness of subjects in this paper.

7 *Light verb* is defined along Bower (1993), Kratzer (1996), Hale and Keyser (1991, 1993, 1997, 1999), Huang (1994, 1997), Lin (2001) and Ai (2003), in which it is only phonetically light but semantically rich. Some examples are provided after each example in (16).
(17) a. fang ‘to put’: V, [__ \(\emptyset\)]

b. 
\[
\begin{array}{c}
vP \\
\text{theme/instrument/} \\
\text{location/time/reason} \\
v' \\
v \\
\emptyset/\text{USE}/AT_{1/2}/\text{FOR}
\end{array}
\]

Fang

However, this seems to be over-generalized. Take mai as in (6) for example. Not all examples as indicated in (16) seem to be grammatical if we replace the verb fang ‘to put’ with mai ‘to buy’, shown in (18):

(18) a. Laowang 
\textit{mai le yi-ben shu zai zhuo-shang}. 
\textit{Theme}
‘Laowang bought a book (and put it) on the table.’

b. *Zhexie shu zonggong \textit{mai le san-ge xiangzi}. 
\textit{Instrument}
‘It takes three boxes altogether to buy these books in.’

c. *Zhexie shu \textit{mai wo-jia}. 
\textit{Location}
‘These books [can be] bought and kept in my house.’

d. ? Zhe-wan mian \textit{mai le zheng-ge zaoshang}. 
\textit{Time}
‘This bowl of noodle has been bought for the whole morning.’

e. ? Zhexie shu \textit{bu-shi mai hao-kan de}. 
\textit{Reason}
‘These books are not bought for good-looking.’

Thus, the non-selectiveness of objects in Chinese is actually verb-sensitive. In other words, the subcategorization framework in Chinese lexicon is not totally without control.

5. Concluding Remarks

Through the discussion of DS in Chinese, we have argued that Chinese might have limited subcategorization framework in the lexicon. Furthermore, the puzzle of
Chinese DS has provided us with a perfect window to look further into the so-called ‘lexicalization’ parameter.\(^8\) It seems that cross-linguistically, certain arguments can be lexicalized into the verb but not all arguments need to be lexicalized in a given language. English, for example, lexicalizes both the goal and the benefactive argument. Chinese, on the other hand, only lexicalizes the goal argument, but not the benefactive one. Under this argument, verbs in Chinese have to be individually treated. Minimally, the study of Chinese verbs has to be category-based.\(^9\) It seems that there is no easy generalization that can cover all the verbs in Chinese.

REFERENCES


Gropen, Jess; Pinker, Steven; Hollander, Michelle; Goldberg, Richard & Wilson, Ronald (1989). The learnability and acquisition of the dative alternation in English. Language 65, 205-257.


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\(^8\) The term ‘lexicalization’ is not addressed in detail in this paper. For a comprehensive review and the possible way of parametrizing it, see Lin (2001).

\(^9\) For a complete typology of dative verbs, see Rappaport Hovav & Levin (2008).


