

In addition, there are also verbs that do not participate in any alternation, such as *gaosu* ‘tell’:

- (4) a. *Wo gaosu yijian shi gei ta GO
 I tell one-CL matter to him
 ‘I told one thing to him.’
- b. *Wo gaosugei ta yijian shi VgeiDO
 I tell -to him one-CL matter
 ‘I told him one thing.’
- c. Wo gaosu ta yijian shi DO
 I tell him one-CL matter
 ‘I told him one thing.’

Even if a given verb participates in alternations, semantic, pragmatic, discourse, or other factors may cause one form to be preferred over the other two. Thus while (5a) is acceptable, (5b) and (5c) are less so.

- (5) a. Wo mei song li gei Zhangsan
 I not-PERF give present to Zhangsan
 ‘I didn’t give presents to Zhangsan.’
- b. ?Wo mei songgei Zhangsan li
 I not-PERF give-to Zhangsan presents
 ‘I didn’t give Zhangsan presents.’
- c. ?Wo mei song Zhangsan li
 I not-PERF give Zhangsan presents
 ‘I didn’t give Zhangsan presents.’

In this paper, I shall examine the dative alternation with respect to the verbs that do or do not participate in the alternation; I shall leave aside other factors that influence the alternation for future study.

Given that the dative alternation is available in Chinese, one issue that arises is how the three constructions are related. Do they have the same meaning, related to one another by a syntactic derivation, between DO and GO, and by a morphological operation, relating a verb and a sequence of verb + *gei*, between DO and *VgeiDO*? Or do they have different meanings? To answer this question, it is first necessary to find out the extent of the alternation; that is, which verbs participate in the three-way alternation, the two-way alternation, or no alternation. In this study I shall argue for the polysemy view. I shall show that the three constructions are related, all having to do

with the notion of transfer; however, the distribution of verbs in these constructions suggests that the three constructions differ with respect to the range of transfer expressed and the role of the dative object or the *gei* object. The relationships among the three constructions can be captured in the constructional approach as advocated in (Goldberg 1995, 2006, Goldberg & Jackendoff 2004, Jackendoff 2002, Kay & Fillmore 1999, among others).

In the constructional approach, a construction is a pairing of form and function. The size of a construction ranges from independent words to sentential structures. Constructions may or may not have special syntax. The constructional approach differs from the traditional approach is that constructions themselves carry meanings, independent of the meanings contributed by the lexical items in a construction. We shall see that this characteristic can be used to explain the distribution of verbs across the three dative constructions in Chinese. The constructional approach has been adopted for the double object or ditransitive construction (DO) in Chinese, as in Ahrens (1995), N. Zhang (1998), and B. Zhang (1999). In this study, I shall extend the approach to all three dative constructions.

Another issue concerns how the variants of an alternation relate to one another. I shall show that the two or three variants have basically the same meaning and have similar syntactic and semantic properties. I shall then examine the issue of how to account for the alternation pattern in (1)-(4). Does the pattern of alternation follow from a principled explanation? Or does it depend on narrow range rules that define semantic subclasses of verbs, as Pinker (1989) proposes for English? I shall suggest that the pattern of alternation in Chinese is not random. The possibility and extent of alternation for a given verb is determined by its meaning, in particular, whether it carries a core, extended or further extended meaning of transfer. A verb that carries a core meaning of transfer participates in the three-way alternation, while a verb that carries a further extended meaning of transfer allows no alternation. This view of the dative alternation also lends support to the constructional approach, according to which the three dative constructions constitute a family of constructions.

To date there have been two approaches to the Chinese dative alternation. In the first approach, GO, *VgeiDO*, and DO are considered three variants or permutations of the double object construction (T. Tang 1978, Li & Thompson 1981, Li 1985, 1990). In this approach, *gei* in GO is considered to be the same *gei* as in *VgeiDO*.³ In the second approach, two independent constructions are recognized: double object construction (V NP NP) and dative construction (V NP *gei* NP) (Ahrens 1995). When *gei* immediately follows the verb, it forms a complex verb with V, in accordance with Huang & Mo

³ These studies do not all assign the same status to *gei*, however. Li & Thompson (1981) take *gei* as co-verb; Li (1985, 1990), on the other hand, claims *gei* is a verb in both GO and *VgeiDO*.

(1992). The complex verb enters the ___ NP NP structure, but not the ___ NP *gei* NP structure. Thus *Vgei* NP NP is separated from V NP *gei* NP; on the other hand, *Vgei* NP NP is considered a sub-type of V NP NP, both having a verb followed by a dative object and a direct object. In fact, as far as I know, the practice of grouping *Vgei* NP NP as a type of V NP NP is shared by all previous studies of dative constructions in Chinese. My analysis departs from these studies and takes all three constructions to be independent of, yet related to, one another. In particular, although superficially DO and *Vgei*DO differ only in that the verb in the latter is a compound verb, the two constructions have different meanings, albeit with some overlap.

The paper is organized as follows. In §2, §3, and §4, I describe GO, *Vgei*DO and DO respectively, focusing on the verb classes that do or do not occur in each construction. In §5, I compare the three constructions and argue for the polysemy view of the three constructions in §5.1, while in §5.2 I show that variants in an alternation share syntactic and semantic properties; I then propose an analysis for the alternation pattern in §5.3.

2. The GO construction

The syntax and semantics of GO is given in (6):

- (6) The GO construction
- | | |
|-----------|--|
| syntax | NP ₁ V NP ₂ <i>gei</i> NP ₃ |
| semantics | X ₁ (ACT AND) TRANSFER Y ₂ TO Z ₃ |

According to (6), there is either one or two subevents in GO. In the former case, GO simply expresses an event of transfer; this happens when the verb inherently carries a sense of transfer. In the latter case, there is a subevent preceding the event of transfer, expressed by the verb; the subevent, as we shall see §2.1, must be related to the event of transfer.

What stands out about (6) is the occurrence of *gei* ‘to’. *Gei* ‘to’ has been considered a co-verb (Li & Thompson 1981), a preposition (J. Tang 1990, Yang 1991, S. Zhang 1990) or a verb (Chao 1968, Huang & Mo 1992, Huang & Ahrens 1999, Li 1985, 1990). I shall adopt the co-verb analysis of *gei*, although for the purpose of this study, it does not matter which category it is assigned to. Rather, what matters are its semantic properties. Li & Thompson (1981:383) observe that the meaning of the co-verb *gei* ‘to’ is closely related to the meaning of the verb *gei* ‘give’. This insight can be used to explain two characteristics of GO. As a verb, *gei*’s basic meaning is ‘give’; it implies two things: that an event of transfer is involved and that the transfer is from an agent to a recipient. Both properties are found in GO, illustrated below.

First, the *gei* object (NP₃) is a recipient. (7a) shows that it cannot refer to just any target, such as a location. As a recipient, the argument is generally animate; if it is inanimate, it refers to an organization or people at the location. This is shown in (7b-c):

- (7) a. *Wo na -le yidian dongxi gei lukou
I take-PERF some things to intersection
'I took some things to the intersection.'
- b. Wo song -le yidian dongxi gei loushang
I give-as-present-PERF some things to upstairs
'I gave some things to people upstairs as presents.'
- c.?*Wo ji -le yifeng xin gei Taipei
I send-PERF one-CL letter to Taipei
'I sent a letter to Taipei.'

The *gei* object in (7b) refers to the people upstairs; (7c), if acceptable, can only refer to a particular person or institution in Taipei. In English it is widely known that the dative object in the double object construction is subject to the same requirement (e.g., Green 1974:103, Oehrle 1976:81), as in (8):

- (8) *I sent London a letter.

(8) is unacceptable for the same reason that (7c) is. On the other hand, being a recipient does not imply that the argument is necessarily a possessor. Although much literature has observed that the dative object in English double object construction is a possessor, Goldberg (1995:147) gives (9) as an example of a recipient that is not a possessor.

- (9) Jo gave Mary an insult.

A similar example can be given in Chinese, as in (10):

- (10) Laoshi song -le yijuhua gei xuesheng
teacher give-as-present-PERF one-sentence to students
'The teacher gave the students a few words as a present.'

The students did not really possess the words, but only received them. Further, a recipient is not necessarily a benefactor even though the two are often related. This can be seen in (11):

- (11) Tingshuo you yige xuesheng ji -le yifeng
 hear-way there-is one-CL student send-PERF one-CL
 konghe xin gei xiaozhang
 threat letter to president
 ‘I heard that a student sent a threatening letter to the president of the school.’

The second semantic property of GO, that it involves an event of transfer, is shared by English prepositional object construction. In both constructions a movement is implied, either concretely or metaphorically. In the case of transfer of possession or knowledge, it is clear what the moved entity is, as in (1a) and (3a); but in (12), the moved entity is not the restaurant that was introduced, but the reference to the restaurant.

- (12) Wo jieshao -le yijia canguan gei Zhangsan
 I introduce-PERF one-CL restaurant to Zhangsan
 ‘I introduced a restaurant to Zhangsan.’

Whether the transfer is successful, however, depends on the verb. Give-verbs, e.g., *song* ‘give as present’ imply successful transfer, as in (13a); however, manner of motion verbs and instrument of communication verbs do not, as in (13b-c):

- (13) a. *Ta song-le yishu hua gei Lisi, keshi mei songdao
 he give -PERF one-bundle flower to Lisi, but not-PERF give-arrive
 *‘He gave a bouquet to Lisi, but it didn’t get there.’
 b. Zhangsan diu -le yige qiu gei Lisi, keshi mei diudao
 Zhangsan throw-PERF one-CL ball to Lisi but not-PERF throw-arrive
 ‘Zhangsan threw a ball to Lisi, but it didn’t get there.’
 c. Wo ji -le yifeng xin gei tamen, keshi mei jidao
 I send-PERF one-CL letter to them but not-PERF send-arrive
 ‘I sent a letter to them, but it didn’t get there.’

Anticipating the discussion in §2.1, we can observe that the difference arises from which aspect of transfer the verb expresses. An act of transfer implies a successful transfer, but manner, instrument of transfer, or precondition of transfer do not.

2.1 Verbs that occur in the GO construction

Verbs that enter the GO construction include the following classes:

- (14) Verbs classes that occur in the GO construction:
- a. transfer of possession: *song* ‘give as present’, *gei* ‘give’, *huan* ‘return’, *pei* ‘compensate’, *zhao* ‘give change back’, *jie* ‘lend’, *zu* ‘rent’
 - b. transfer of knowledge: *chuanshou* ‘pass on (knowledge)’
 - c. provision: *tigong* ‘provide’, *gongying* ‘provide’
 - d. giving up possession: *shu* ‘lose’, *rang (wei)* ‘yield (seat)’, *mai* ‘sell’
 - e. referral: *jieshao* ‘introduce’, *tuijian* ‘recommend’
 - f. contribution: *juan* ‘donate’, *xian* ‘donate’
 - g. promise: *xu* ‘promise’,⁴ *bo* ‘appropriate’, *fen* ‘allocate’
 - h. manner of motion: *dou* ‘throw’, *chuan* ‘pass on’, *ti* ‘kick’, *na* ‘carry with hand’, *jia* ‘pick up with chopsticks’, *dao (cha)* ‘pour (tea)’
 - i. instrument of communication: *da (dianhua)* ‘make (a phone call)’, *ji* ‘mail’, *chuanzhen* ‘fax’, *hui* ‘remit’
 - j. creation: *hua* ‘paint’, *zhi* ‘knit’, *zuo* ‘make’, *zao* ‘build’
 - k. obtaining: *mai* ‘buy’, *zhan (weizi)* ‘occupy (a seat)’, *zhua* ‘grab’, *ti (kuan)* ‘withdraw (money)’, *liu* ‘reserve’

One question that immediately arises is: how to characterize the verbs in (14)? Do they share any semantic properties? At the lexical-semantic level, the verbs listed in (14) do not really fall into a natural semantic class. Some verbs are three-place verbs, e.g., *song* ‘give as present’, whereas other verbs are two-place verbs, e.g., *zuo* ‘make’. However, I suggest that the verbs in (14) do form a coherent group in the context of the construction. The verbs either inherently carry a sense of transfer or describe an event that enables transfer—coming to have. Thus all verbs in GO have something to do with transfer. Four aspects of transfer are identified, given in (15):

- (15) Range of transfer expressed by verbs in the GO construction
- a. act of transfer
 - b. manner of transfer
 - c. instrument of transfer
 - d. precondition of transfer: coming to have

⁴ *Xu* ‘promise’ in GO is not productive. Chao (1968:318) gives (i) as an example:

(i) Xu yige nüer gei ta
 promise one-CL daughter to him
 ‘Promise a daughter to him.’

Other than (i), however, there are very few NPs that can occur as object of *xu* ‘promise’.

(15a), act of transfer, can be further divided along at least two dimensions: types of transfer and status of transfer. The former includes transfer of possession, knowledge, reference, while the latter includes realized and unrealized or expected transfer. (1a) is an example of realized act of transfer of possession. Of the verb classes in (14), (a-g) are grouped under (15a). (15b), manner of transfer, is expressed by verbs of manner of motion, in (14h), and is illustrated in (13b). (15c), instrument of transfer, is expressed by verbs of instrument of communication, in (14i) and is illustrated in (2a).

(15d) is expressed by verbs of creation, (14j), and verbs of obtaining, (14k). Unlike (15a-c), these verbs do not express transfer per se; rather, they express ‘coming to have’ in the context of transfer, which is a precondition of transfer. That is, in order to ‘give’, you must ‘have’. Coming to have can be achieved in two ways, either by acquiring an entity or by bringing an entity into existence. The two situations are illustrated in (16a) and (16b) respectively:

- (16) a. Wo mai-le yiben shu gei ta
 I buy-PERF one-CL book to him
 ‘I bought him a book.’
 b. Zhangsan xie -le yifeng xin gei Lisi
 Zhangsan write-PERF one-CL letter to Lisi
 ‘Zhangsan wrote a letter to Lisi.’

In (16), the verbs *mai* ‘buy’ and *xie* ‘write’ do not express an act of transfer; instead, they express a preliminary event of book-buying and letter-writing, followed by a subsequent act of transfer. This is an example of how the meaning of a sentence is a composite meaning of the construction and the meaning of the verb. Verbs of creation and verbs of obtaining acquire the meaning of ‘coming to have’ only in the context of the construction. Sentences such as (16a-b) offer support for the constructional approach.⁵

⁵ Given that the English counterpart of (16a) is paraphrased as {*I bought a book for him.*}, one wonders whether the object of *gei* in (16a) is a benefactor, rather than a recipient.

In (16a) *ta* can be a benefactor, but more importantly, it is an intended recipient. In order to occur in GO, there must be an intended recipient. If the object is only a benefactor, but not a recipient, it cannot occur in GO. Compare (ii) with (iii):

- (ii) Xuexiao gei ta hua -le yizhang xiang
 school for him paint-PERF one-CL portrait
 ‘The school painted a portrait of him.’
 (iii) Xuexiao hua -le yizhang xiang gei ta
 school paint-PERF one-CL portrait to him
 ‘The school painted a portrait for him.’

Only in (iii) was the portrait intended for him.

The four aspects of transfer given in (15), together with the verb classes and representative verbs are listed in (17):

(17) <u>verb subclass</u>	<u>representative verb</u>	<u>aspect of transfer</u>
transfer of possession	<i>song</i> ‘give as present’	act of transfer: possession
transfer of knowledge	<i>chuanshou</i> ‘pass on’	act of transfer: knowledge
provision	<i>tigong</i> ‘provide’	act of transfer: provision
giving up possession	<i>shu</i> ‘lose’	act of transfer: giving up
referral	<i>jieshao</i> ‘introduce’	act of transfer: referral
contribution	<i>juan</i> ‘contribute’	act of transfer: contribution
promise	<i>xu</i> ‘promise’	future act of transfer
manner of motion	<i>dou</i> ‘throw’	manner of transfer
instrument of communication	<i>ji</i> ‘mail’	instrument of transfer
obtaining	<i>mai</i> ‘buy’	precondition of transfer
creation	<i>zuo</i> ‘make’	precondition of transfer

Thus all of the verbs are united under the sense of transfer that comes from the construction itself. While some express a core sense of transfer, others express how transfer is performed, still others express a preliminary condition of transfer.

Verbs expressing act of transfer, such as *song* ‘give as present’ subcategorize for a recipient argument. Earlier I have suggested that the recipient role of the *gei* object is assigned by *gei*. For verbs expressing act of transfer, then, the recipient role is simultaneously assigned by the verb and *gei*. Verbs expressing manner or instrument of transfer, and precondition of transfer, however, are two-place verbs and do not subcategorize for a recipient argument; the recipient role of the *gei* object of these verbs thus comes from *gei*, but not the verb.

2.2 Verbs that do not occur in the GO construction

Many classes of verbs convey a sense of transfer, but not all of them occur in GO. Verbs of communicated message, for example, do not occur in the GO construction, as seen in (4a), repeated here:

- (18) *Wo gaosu yijian shi gei ta
 I tell one-CL matter to him
 ‘I told one thing to him.’

Neither do verbs that imply the opposite of transfer, i.e., verbs that block transfer, such as verbs of refusal *jujue* ‘refuse’. These verbs are included in (19), which lists verbs that are compatible with the meaning of transfer and yet do not occur in the GO construction:

- (19) Verbs of transfer that do not occur in GO
- a. communicated message: *gaosu* ‘tell’, *tongzhi* ‘inform’, *baogao* ‘report’, *wen* ‘ask’, *huida* ‘answer’, *weituo* ‘entrust’
 - b. refuse: *jujue* ‘refuse’
 - c. future having: *qian* ‘owe’, *shao* ‘short of’, *zhun* ‘allow’, *daying* ‘promise’
 - d. teaching: *jiao* ‘teach’, *zhidao* ‘guide’, *jiaodao* ‘teach and guide’
 - e. feeding: *wei* ‘feed’, *guan* ‘pour into container’, *kuandai* ‘provide food’, *zhaodai* ‘provide food’

(19d) and (19e) deserve special mention. Verbs of teaching (e.g., *jiao* ‘teach’) are verbs of transfer of knowledge, and verbs of feeding (e.g., *wei* ‘feed’) are verbs of transfer of possession; as shown in (20), they do not occur in the GO construction:

- (20) a. **Laoshi jiao -le yixie fangfa gei xuesheng*
 teacher teach-PERF some methods to students
 ‘The teacher taught some methods to the students.’
- b. **Mama wei niunai gei Xiaoming*
 mother feed milk to Xiaoming
 ‘Mother fed Xiaoming milk.’

I suggest that the reason these verbs do not occur in GO is that they do not take a recipient argument; rather they take a patient argument. For ease of reference, I shall call the argument of *jiao* ‘teach’ and *wei* ‘feed’ that is not the theme the second internal argument. Below we shall see that the second internal argument in these two verbs behave more like a patient than a recipient.

I shall rely on Dowty’s (1991) theory of argument selection to compare the second internal argument of *jiao* and *wei* with the recipient argument of a typical verb of transfer of possession, such as *huan* ‘return, pay back’. Dowty proposes two prototypical thematic roles—Proto-Agent and Proto-Patient. Each prototypical role is constructed as a set of entailments. Here we shall only be concerned with the Proto-Patient properties, given in (21):

- (21) Proto-Patient properties
 change of state
 incremental theme

causally affected
 stationary relative to other argument
 existence dependent on event

Of the five properties, the first three distinguish the second internal argument of *jiao* ‘teach’ and *wei* ‘feed’ from the recipient argument of *huan* ‘return, pay back’. First, the second internal argument of *jiao* and *wei* has the potential of undergoing change of state, as in (22).

- (22) a. Zhangsan jiao Lisi Yingwen ba Lisi jiaofan -le
 Zhangsan teach Lisi English ba Lisi teach-annoyed-PERF
 ‘Zhangsan taught Lisi English to the point that Lisi got annoyed.’
 b. Mama wei Xiaoming niunai ba Xiaoming weibao -le
 Mother feed Xiaoming milk ba Xiaoming feed-full-PERF
 ‘Mother fed Xiaoming milk and made him full.’
- (23) a. Wo huan Zhangsan le
 I return Zhangsan PRT
 ‘I returned (it) to Zhangsan.’
 b. *Wo huanqing Zhangsan ershi-kuai qian
 I return-clean Zhangsan twenty-CL dollar
 ‘I paid off \$20 to Zhangsan.’

In (22a) Lisi became annoyed because of Zhangsan’s (perhaps repeated) teaching, and in (22b), Xiaoming became full as a result of the feeding. On the other hand, the recipient of *huan* in (23) does not undergo a change of state, as the resultative cannot indicate the change on Zhangsan. Second, the second internal argument of *jiao* and *wei* can also be an incremental theme. In (22), the progress of the event of teaching Lisi and getting him annoyed can be measured by looking at Lisi; similarly, the extent of fullness in Xiaoming’s stomach reveals the progress of the event of feeding Xiaoming. Again, the recipient of *huan* is not an incremental theme. Finally, in (22), both Lisi and Xiaoming are causally affected, as they underwent a change of state, while it is not obvious whether Zhangsan in (23) is causally affected or not.

Thus the second internal argument of *jiao* and *wei* is shown to have more of the proto-patient properties than the recipient argument of *huan*. An additional piece of evidence is that the second internal argument of *jiao* and *wei* can be passivized, as in (24), but the recipient of *huan* cannot be passivized, as in (25):

- (24) a. Lisi bei jiaofan le
 Lisi by teach-annoyed PERF
 ‘Lisi was taught to the point of getting annoyed.’
 b. Xiaoming bei weibao le
 Xiaoming by feed-full PERF
 ‘Xiaoming was fed until he was full.’
- (25) *Zhangsan bei huanqing le
 Zhangsan by return-clean PERF
 ‘Zhangsan was paid off.’

I shall take the second internal argument of *jiao* and *wei* as the patient argument. If *jiao* and *wei* take a patient, rather than a recipient, it follows that neither verb occurs in the GO construction.

To summarize, in GO the range of transfer and the role of the *gei* object are given in (26):

- (26) The GO construction
 range of transfer: act (possession, knowledge, provision, giving up,
 contribution, referral, promise),
 manner,
 instrument,
 precondition
 argument role of *gei* object: recipient

2.3 The GO-verb construction

Before we leave the GO construction, another construction that has a similar surface structure must be considered. This is illustrated in (27):

- (27) a. Wo na -le yiben shu gei Lisi kan NP V NP [*gei* NP] V
 I bring-PERF one-CL book to Lisi read
 ‘I brought a book for Lisi to read.’
 b. Wo diu -le yige qiu gei gou jie
 I throw-PERF one-CL ball to dog catch
 ‘I threw a ball for the dog to catch.’

In both (27a) and (27b), the *gei* object is followed by another verb. I shall call this construction the GO-verb construction.

A natural question to ask is whether the GO-verb construction is a sub-type of the GO construction, with an optional verb. This is a position taken by Huang & Mo (1992) and Huang & Ahrens (1999). I shall show that the GO-verb construction is not related to the GO construction, and that *gei* in the two constructions have different semantic properties: while *gei* in the GO construction marks the recipient, in the GO-verb construction it marks the benefactor.

First, the two constructions do not take the same classes of verbs. Most of the verbs listed in (14) can also occur in the GO-verb construction, but not all do. For example, *da* (*dianhua*) ‘make (a phone call)’ does not occur comfortably in the GO-verb construction; neither does *pei* ‘compensate’:

- (28) a. ?Wo da-le yige dianhua gei ta jie
 I hit-PERF one-CL phone-call for him receive
 ?‘I made a phone call for him to receive.’
 b. *?Wo pei -le yibai kuaiqian gei ta yong
 I compensate-PERF one-hundred dollar for him use
 ?‘I compensated \$100 for him to use.’

Note that the incompatibility between a verb and the GO-verb construction does not necessarily extend to the class the verb belongs to. Thus while *pei* ‘compensate’ does not occur comfortably in the GO-verb construction, *song* ‘give as present’, which is also a verb of transfer of possession, does, as in (27a) above. This suggests that it is not the semantic property of transfer that makes (28b) unacceptable. On the other hand, a miscellaneous group of verb classes that do not occur in the GO construction do occur in the GO-verb construction. Some examples are given in (29)-(32):

- (29) a. Zhangsan shuo -le haojige paizi gei women cankao
 Zhangsan mention-PERF several brands for us refer-to
 ‘Zhangsan mentioned several brands for us to use as reference.’
 b. *Zhangsan shuo -le haojige paizi gei women
 Zhangsan mention-PERF several brands to us
 ‘Zhangsan mentioned several brands to us.’
 (30) a. Wang mama bai -le haoduo cai gei dajia xiangyong
 Wang mother put-out-PERF many dishes for everyone enjoy
 ‘Mother Wang put out many dishes for everyone to enjoy.’
 b. *Wang mama bai -le haoduo cai gei dajia
 Wang mother put-out-PERF many dishes for everyone
 ‘Mother Wang put out many dishes for everyone.’

- (31) a. Wo zai zhao difang gei mao shui
 I prog look-for place for cat sleep
 'I'm looking for a place for the cat to sleep.'
 b. *Wo zai zhao difang gei mao
 I prog look-for place for cat
 'I'm looking for a place for the cat.'
- (32) a. Wo fan-le yipian wenzhang gei ta kan
 I flip-PERF one-CL article for him read
 'I opened an article for him to read.'
 b. *Wo fan-le yipian wenzhang gei ta
 I flip-PERF one-CL article for him
 'I opened an article for him.'

The verbs in (29)-(32) include verbs of speaking, putting, searching, and performance: a rather mixed bag.

More importantly, the two constructions have different meanings. While GO expresses transfer, and marks the *gei* object as a recipient, GO-verb in general does not express transfer, and marks the *gei* object as a benefactor. In GO, as discussed earlier, the recipient role of the *gei* object comes from the post-verbal *gei*, which has inherited the characteristics of the verb *gei*. Even though a recipient can also be a benefactor, (11) above shows that the two roles do not always go together. It is the recipient role that is consistent across sentences of GO. As for GO-verb, it is not difficult to show that sentences of the construction do not consistently carry the meaning of transfer. Among the sentences in (29)-(32), (30)-(31) might include a sense of transfer, but (29) and (32) do not. Rather, what is consistent in GO-verb is the benefactive meaning, which is present in all of (29)-(32), as indicated by the English translation. In fact, *gei* in GO-verb is the benefactor marker of the following verb. *Gei*'s role in the two constructions is given in (33):

(33) Function of <i>gei</i>	<u>meaning</u>	<u>argument role assignment</u>
GO construction	transfer	recipient-marking
GO-verb construction	benefactive	benefactor-marking

It might be pointed out that (27a) and (27b) are counterexamples to (33); in these sentences the *gei* object appears to have the role of a recipient. In (27a), it is natural for Lisi to be the receiver of the book, and in (27b), the dog is the receiver of the ball. On closer examination, however, neither sentence poses a problem. Consider (27a) first.

The book is not necessarily intended for Lisi to receive or keep; all that is intended is for Lisi to read the book. Thus (27a) is true in a situation where someone else holds the book and reads with Lisi, who never actually receives the book. As for (27b), the recipient reading of the *gei* object is also not obligatory. The verb *diu* ‘throw’ does not select a recipient argument, and the NP is only marked as a benefactor by *gei*, following (33). The difference between a recipient and a benefactor can be subtle, as oftentimes a recipient is also a benefactor. However, in a situation of a dog catching a ball, this distinction can be made. If the dog has the role of recipient, I assume a ball would be thrown to it; however, if the dog has the role of benefactor, a ball could be thrown away from the dog for it to chase. Indeed (27b) is true in the latter scenario. The apparent recipient reading is present only because it is common for a ball to be thrown to the catcher. Thus neither (27a) nor (27b) deviates from (33). These examples also demonstrate that although *gei* in the GO-verb construction seems to mark a recipient sometimes, it does not do so across the board, and therefore recipient-marking is not part of the meaning of the GO-verb construction.

In fact, *gei* in the GO-verb construction behaves like the preverbal *gei* in the benefactive construction, illustrated in (34):

- (34) a. Wo gei Zhangsan ti xingli
 I for Zhangsan carry luggage
 ‘I carried the luggage for Zhangsan.’
 b. Lisi gei dajia chu zhuyi
 Lisi for everyone offer idea
 ‘Lisi offered ideas for everyone.’

The benefactive construction has the structure NP *gei* NP V (NP), and *gei* marks the benefactor, which is assigned to *Zhangsan* and *dajia* ‘everyone’ in (34a-b). These two arguments do not have the role of recipient. Further, no sense of transfer is conveyed by *gei* in (34). As we just saw, these two characteristics are also found in the GO-verb construction. This suggests that the GO-verb construction is a sub-type of the benefactive construction.

Thus the two *gei*’s in GO and GO-verb have different semantic properties. While in GO *gei* has the meaning of transfer and marks a recipient, in GO-verb *gei* has the benefactive meaning and marks a benefactor.

In short, in the GO construction sentences express a wide range of transfer, including act, manner, instrument, and precondition, followed by act of transfer. The argument role of the *gei* object is recipient. A superficially similar construction, the GO-verb construction, does not have the meaning of transfer, and it is not a sub-type of the GO construction.

3. The *VgeiDO* construction

Next, we turn to the *VgeiDO* construction. In this construction the verb is immediately followed by *gei*, which is in turn followed by the dative object and the direct object. This is illustrated in (35)-(36).

- (35) Zhangsan huangei Lisi shikuai qian
 Zhangsan return-to Lisi ten-CL dollar
 ‘Zhangsan returned ten dollars to Lisi.’
- (36) Ta renggei wo yige pingguo
 he throw-to me one-CL apple
 ‘He threw an apple to me.’

Following Chao (1968), Li (1985, 1990), Huang & Mo (1992), and Huang & Ahrens (1999), I assume that *gei* forms a compound verb with the preceding verb.

The syntax and semantics of *VgeiDO* is given in (37):

- (37) The *VgeiDO* construction
- | | |
|-----------|----------------------------------|
| syntax | NP_1 <i>Vgei</i> NP_2 NP_3 |
| semantics | X_1 transfer Y_3 to Z_2 |

Unlike GO, which may express one or two subevents, *VgeiDO* only expresses one event, that of transfer. Nonetheless, the two constructions share a number of properties. First, the dative object (NP_2) has the role of recipient, just like the *gei* object in GO. It is animate; inanimate objects must denote an organization or a group of people at the location:

- (38) a. *Wo songgei lukou yidian dongxi
 I give-as-present-to intersection some things
 *‘I gave some things to the intersection as presents.’
- b. ?Wo jigei Taibei yifeng xin
 I mail-to Taipei one-CL letter
 ?‘I mailed Taipei a letter.’

Second, as in GO, the theme argument (NP_3) in *VgeiDO* also undergoes movement, and the moved entity may be physical, as in (35)-(36), or abstract, as in (39):

- (39) Shifu chuanshougei tudi xuduo fangfa
 master pass-on -to disciple many methods
 ‘The master passed on to the disciple many methods.’

Once more, the two characteristics can be attributed to the presence of *gei*. Thus the co-verb *gei* in GO and the verbal compound element *gei* in *VgeiDO* share the semantic properties of transfer and recipient marking. As both *gei*'s are post-verbal, this in turn suggests that the post-verbal *gei* is semantically closely related to the verb *gei*, as opposed to the preverbal *gei*, which carries a meaning of benefactive, rather than transfer, as we saw in §2.3.

Besides the recipient role and the implication of movement, *VgeiDO* is also parallel to GO in that the transfer is successful when a verb expresses act of transfer, as in (40a), but not necessarily so when a verb expresses manner or instrument of transfer, as in (40b-c):

- (40) a. *Wo huangei Lisi yiben shu, keshi mei huandao
 I return-to Lisi one-CL book but not-PERF return-arrive
 *‘I returned Lisi a book, but it didn’t get returned.’
 b. Wo diugei Lisi yige qiu, keshi mei diudao
 I throw-to Lisi one-CL ball but not-PERF throw-arrive
 ‘I threw Lisi a ball, but it didn’t get there.’
 c. Wo jigei Lisi yifen xin, keshi mei jidao
 I mail-to Lisi one-CL letter but not-PERF mail-arrive
 ‘I sent Lisi a letter, but it didn’t get there.’

The construction differs from the GO construction, however, with respect to the range of transfer covered. It is narrower than that of the GO construction. Not all aspects of transfer can be expressed; in particular, the precondition of transfer that is expressed in GO (coming to have) cannot be expressed in the *VgeiDO* construction. As we have seen in (16), this aspect of transfer is expressed by sentences containing verbs of obtaining and verbs of creation. (41) shows that neither class of verbs occurs in the construction:

- (41) a. *Laowang qianggei wo yige weizi
 Laowang grab-to me one-CL seat
 ‘Laowang grabbed a seat for me.’
 b. *Ta zuogei wo yige dangao
 he make-to me one-CL cake
 ‘He made me a cake.’

Aside from ‘coming to have’, the three other aspects of transfer are expressed: act of transfer, e.g., (35), manner of transfer, e.g., (36), and instrument of transfer, illustrated in (42):

- (42) Wo jigei ta xuduo zhaopian
 I mail-to him many pictures
 ‘I mailed him many pictures.’

Altogether the verb classes that occur in the *Vgei*DO construction are given in (43):

- (43) Verbs that form compounds as *Vgei*:
- a. transfer of possession: *song* ‘give as present’, *huan* ‘return’, *mai* ‘sell’, *pei* ‘compensate’, *jie* ‘lend’, *shang* ‘reward’, *zu* ‘rent’
 - b. transfer of information: *jiao* ‘teach’, *chuanshou* ‘teach’, *chuanda* ‘forward’
 - c. provision: *tigong* ‘provide’, *gongying* ‘provide’
 - d. giving up possession: *shu* ‘lose’, *rang* ‘yield’
 - e. referral: *jieshao* ‘introduce’, *tujian* ‘recommend’
 - f. contribution: *juan* ‘donate’, *xian* ‘donate’
 - g. promise: *xu* ‘promise’, *bo* ‘appropriate’, *fen* ‘allocate’
 - h. manner of motion: *diu* ‘throw’, *pao* ‘throw’, *na* ‘bring/take’, *di* ‘hand over’, *chuan* ‘pass’
 - i. instrument of communication: *ji* ‘mail’, *da* (*dianhua*) ‘make (phone call)’, *chuanzhen* ‘fax’, *hui* ‘remit’

All of the *Vgei* compounds assign a recipient argument to the dative object, due to the presence of *gei*. Note that *jiao* ‘teach’ also combines with *gei* to form *jiaogei*, illustrated in (44):

- (44) Laoshi jiaogei xuesheng xuduo zhishi
 teacher teach-to students much knowledge
 ‘The teacher taught students much knowledge.’

As discussed in §2.2, *jiao* ‘teach’ is excluded from the GO construction because it takes a patient, rather than a recipient argument. However, as a verb of transfer of knowledge, it combines with *gei* to form a compound. This shows that verbs are not required to select a recipient argument in order to form a compound with *gei*; but the addition of *gei* has an effect on the argument structure. *Jiao* ‘teach’ and *jiaogei* ‘teach-give’ have different argument structures. (45) shows that *jiaogei* does not take a patient argument:

- (45) *Xuesheng bei (laoshi) jiaogei xuduo zhishi
students by teacher teach-to much knowledge
'Students were taught much knowledge by the teacher.'

The NP *xuesheng* 'students' cannot be the subject of a passive sentence in (45). The fact that *jiaogei* is an acceptable compound indicates that teaching can be construed either as an event of causing someone to learn (*jiao*) or an event of transferring knowledge (*jiaogei*).

The following classes of verbs do not form compounds with *gei* and thus do not occur in the *VgeiDO* construction:

- (46) Verbs that do not occur in *VgeiDO*
- creation: *zuo* 'make', *xie* 'write', *zhi* 'knit', *zao* 'build', *hua* 'paint'
 - obtaining: *na* 'take', *mai* 'buy', *zhan* (*weizi*) 'occupy (a seat)', *zhua* 'grab', *ti* (*kuan*) 'withdraw (money)'
 - communicated message: *gaosu* 'tell', *wen* 'ask', *tongzhi* 'inform', *weituo* 'entrust', *baogao* 'report', *huida* 'answer'
 - future having: *qian* 'owe', *shao* 'short of', *zhun* 'allow', *daying* 'promise'
 - feeding: *wei* 'feed', *guan* 'pour into container', *zhaodai* 'provide food', *kuandai* 'provide food'
 - gei* 'give'

(46a-b), as mentioned above, are incompatible because they are associated with the preliminary stage of coming to have; (46c-d) also do not occur in the GO construction. In addition, the verb *wei* 'feed', which does not occur in the GO construction, also does not occur in the *VgeiDO* construction. This may have to do with *wei*'s lexical semantic properties. It does not have the meaning of giving food to someone when it takes a human object; rather, it means putting food into someone's mouth. Earlier, I suggested that it takes a patient, rather than a recipient argument. The fact that it does not form a compound with *gei* indicates that in Chinese feeding is construed as an event where a patient is acted upon, but not as an event of transfer of food. Finally, the exclusion of *gei* 'give' from the *VgeiDO* construction, according to T. Tang (1978), is a result of haplology.

It might be suggested that verbs of obtaining and verbs of creation are also possible in the *VgeiDO* construction, as in (47):

- (47) a. Wo mai gei ta de shi neiben shu
I buy to him DE is that-CL book
'What I bought him is that book.'

- b. Ni xie gei wo de xin wo dou shoudao le
 you write to me DE letter I all receive PERF
 ‘I have received all of the letters you wrote to me.’

In these sentences a verb of obtaining and a verb of creation are immediately followed by *gei*. On closer examination, however, they are not instances of *VgeiDO*. They are actually instances of the GO construction, where the theme argument is relativized, resulting in a sequence where the verb is immediately followed by *gei*. In the *VgeiDO* construction, a compound verb is followed by two objects; on the other hand, in the GO construction, a verb is followed by an object (theme), *gei*, and its object. Earlier we have already seen that *mai* ‘buy’ and *xie* ‘write’ occur in the GO construction, e.g., (16a-b); to determine if *mai* ‘buy’ and *xie* ‘write’ also occur in the *VgeiDO* construction, we look to see if *mai gei* and *xie gei* can be followed by double objects. A search of *mai gei* and *xie gei* on both the Sinica Corpus⁶ and Google turned up no instance of *mai gei* NP NP or *xie gei* NP NP; rather, all of the instances of *mai gei* and *xie gei* are followed by one object only, as in (47). I assume that for a given verb, if the *Vgei* NP NP sequence is never attested, it means that it cannot occur in the *VgeiDO* construction. *Mai* ‘buy’ and *xie* ‘write’ are two such verbs.

In short, the verbs that occur in the *VgeiDO* construction are the verbs that form compounds with *gei*. The range of transfer covered and the argument role of the dative object are given in (48):

- (48) The *Vgei* DO construction
 range of transfer: act (possession, knowledge, provision, giving up, referral,
 contribution, promise),
 manner,
 instrument
 argument role of dative object: recipient

4. The DO construction

The DO construction is similar to *VgeiDO* in that the verb is followed by the dative object and the direct object. The first important issue concerning DO is its membership. Are all clauses with the form NP₁ V NP₂ NP₃ instances of DO? In previous studies there has been a lack of consensus on this issue. Consider (49):

⁶ The Sinica Corpus (<http://www.sinica.edu.tw/SinicaCorpus/>) was built by Academia Sinica, Taiwan. The current version 4.0 contains eight million characters.

- (49) a. result Ta mo -le wo yishen ni
 he rub-on-PERF me one-body mud
 ‘He rubbed mud all over me.’
- b. causative Najian shi ji -le wo yishen han
 that-CL matter anxious-PERF me one-body sweat
 ‘That matter made me so anxious I sweated all over.’
- c. naming Women cheng ta xiao hutu
 we call him little muddle-headed
 ‘We call him “Little Muddle-headed”.’
- d. change of state Ta zhu -le Laowang yibao mian
 he cook-PERF Laowang one-package noodles
 ‘He cooked a package of noodles that belonged to Laowang.’
- e. consumption Wo yong-le ta yiben zidian
 I use -PERF him one-CL dictionary
 ‘I used a dictionary that belongs to him.’
- f. obtaining Wo na -le ta bushao dongxi
 I take-PERF him not-few things
 ‘I took quite a few things from him.’
- g. giving Ta gei -le wo yige pingguo
 he give-PERF me one-CL apple
 ‘He gave me an apple.’

All of the sentences in (49) have the NP₁ V NP₂ NP₃ form. (a-c) do not imply transfer; neither do (d-e), while (f) implies reverse transfer, from the dative object to the subject. Ma (1992) takes all except for (d) as instances of *shuang bin ju* ‘double object construction’. Li (1985, 1990), Yang (1991), Ahrens (1995), and Chung & Gordon (1998) include (e-g) as members of DO. N. Zhang’s (1998) study includes (d-g) as DO sentences. Finally, Zhang & Thompson (1998), and B. Zhang (1999) suggest dropping the term ‘double object construction’ and adopting the term ‘ditransitive construction’ instead, as the former fails to distinguish among different types of V NP NP sentences. For them, only (c) and (g) in (49) are instances of the ditransitive construction.

I shall assume, along with previous studies (except for Ma 1992), that (a) and (b) are not examples of DO; I also follow most of the previous studies (except for Zhang & Thompson 1998 and B. Zhang 1999) in assuming that (c) is not an example of DO. In addition, I shall exclude (d-f) from DO. Thus I take a narrow view of DO; of all the sentences in (49), only (g) is an instance of DO in my analysis. There are two pieces of evidence that suggest that (d-f) are different than (g); in particular, NP₂ in (d-f) does not behave like a dative object of a ditransitive verb and NP₃ does not behave like a direct

object of a ditransitive verb.

First, the dative object of a ditransitive verb, NP₂, can be questioned when the direct object is topicalized, as illustrated in (50):

- (50) a. Najian shi, ni gaosu-le shei?
 that-CL matter you tell -PERF who
 ‘That matter, who did you tell?’
 b. Nage fangfa, ni jiao -le shei?
 that-CL method you teach-PERF who
 ‘That method, who did you teach?’

However, NP₂ in (d-f) cannot be questioned in the same environment:

- (51) a. *Neige zhaoxiangji, ta tou -le shei?
 that-CL camera he steal-PERF who
 ‘That camera, who did he steal it from?’
 b. *Neiben zidian, ni yong-le shei?
 that-CL dictionary you use -PERF who
 *‘That dictionary, whose did you use?’
 c. *Neibao miantiao, ni zhu -le shei?
 that-package noodle you cook-PERF who
 *‘That package of noodles, whose did you cook?’

Thus NP₂ of verbs of obtaining, verbs of consumption, and change of state verbs do not behave like a dative object.

Secondly, the direct object of a ditransitive verb, NP₃, can be omitted in a discourse context:

- (52) a. Wo yijing gaosu Lisi ___ le
 I already tell Lisi PRT
 ‘I already told Lisi.’
 b. Wo jiao ni ___
 I teach you
 ‘I will teach you.’

But NP₃ of the three classes of verbs cannot be omitted even when it is understood in the context:

- (53) a. *Ta na -le Zhangsan ____
 he take-PERF Zhangsan
 ‘He took Zhangsan’s.’
 b. *Wo yong-le ta ____
 I use -PERF him
 ‘I used his.’
 c. *Wo zhu -le Laowang ____
 I cook-PERF Laowang
 ‘I cooked Laowang’s.’

It seems that NP₃ of the three classes of verbs can only carry new information, which would explain why it cannot be topicalized, as in (51), or omitted in context, as in (53). This requirement is not imposed on NP₃ of ditransitive verbs, however, as (52) shows. Neither is it imposed on the direct object when the three classes of verbs occur in the V NP form, as shown in (54):

- (54) a. Ta na -le ____
 he take-PERF
 ‘He took it.’
 b. Wo yong-le ____
 I use -PERF
 ‘I used it.’
 c. Wo zhu -le ____
 I cook-PERF
 ‘I cooked it.’

Therefore, the restriction is imposed on these classes of verbs only when they occur in the V NP NP form. I suggest the V NP NP sentences where these verbs occur are not cases of DO; rather, they are examples of a construction that contains an affective argument (NP₂) and a theme argument (NP₃). NP₂ is affected by the event, as there is often a sense of deprivation associated with such sentences, noted by Li & Thompson (1981), and Chung & Gordon (1998). The sense of deprivation is present when NP₂ is negatively affected. NP₂ can of course be positively affected, in which case no sense of deprivation will be present, as in (49e). On the other hand, NP₂ is not a patient, since it is not acted upon. Neither is it a source, as assumed in N. Zhang (1998). Even though the source role seems appropriate for (49f), it is not for (49d) or (49e). In (49d), although Lisi is the eventual source of the noodles (possessor), the sentence does not imply an event of Lisi giving the noodles to Zhangsan prior to the cooking event.

I shall refer to the construction with an affective argument as “the affective construction”. The construction in fact covers a wider range of verbs than verbs of obtaining, verbs of consumption and change of state verbs. Some more examples of the construction are given in (55):

- (55) a. Xiaoming da-le ta yige xiao baogao
 Xiaoming hit-PERF him one-CL small report
 ‘Xiaoming sent in a small report on him. (Xiaoming told on him.)’
- b. Laowang bang-le wo yige mang
 Laowang help -PERF me one-CL help
 ‘Laowang helped me once (Laowang did me a favor.)’
- c. Laoban ji -le wo yibi zhang
 boss keep-PERF me one-CL bill
 ‘My boss kept a score on me.’

These sentences all contain an affective argument that is not assigned by the verb.

Returning to the issue of what qualifies as a DO sentence, I have provided syntactic evidence for excluding (49d-f) from the DO construction. Thus only (49g) is a case of DO in (49). (56) gives the syntax and semantics of DO:

- (56) The DO construction
- | | |
|-----------|--|
| syntax | NP ₁ V NP ₂ NP ₃ |
| semantics | X ₁ transfer Y ₃ to Z ₂ |

A characteristic of DO is the absence of *gei*, which sets it apart from GO and *VgeiDO*. This has a consequence on the argument role of NP₂. The verbs that occur in DO fall in two groups, as given in (57):

- (57) Verbs that enter DO
- a. transfer of possession: *gei* ‘give’, *song* ‘give as present’, *huan* ‘return’,
pei ‘compensate’, *jie* ‘lend’, *zu* ‘rent’, *shang* ‘award’
 transfer of information: *chuanshou* ‘teach’, *chuanda* ‘forward’
 provision: *tigong* ‘provide’, *gongying* ‘provide’
 giving up possession: *rang* ‘yield’, *shu* ‘lose’
 referral: *jieshao* ‘introduce’, *tujian* ‘recommend’
- b. communicated message: *gaosu* ‘tell’, *wen* ‘ask’, *tongzhi* ‘inform’,
weituo ‘entrust’, *baogao* ‘report’, *huida* ‘answer’

future having: *qian* ‘owe’, *shao* ‘short of’, *zhun* ‘allow’,⁷ *daying* ‘promise’
 feeding: *wei* ‘feed’, *guan* ‘pour into container’, *zhaodai* ‘provide food’,
kuandai ‘provide food’
 teaching: *jiao* ‘teach’, *jiaodao* ‘teach and guide’, *zhidao* ‘guide’

The verbs in (57a) can also occur in the GO construction, while the verbs in (57b) cannot. Recall in the GO construction that the *gei* object is a recipient. I shall assume that in the DO construction, the verbs that can also occur in GO, i.e., (57a), take a recipient, while the verbs that cannot occur in GO, i.e., (57b), take a goal or patient. The goal role is assigned by verbs of communicated message, e.g., *gaosu* ‘tell’, and verbs of future having, e.g., *qian* ‘owe’, while patient is assigned by *jiao* ‘teach’ and *wei* ‘feed’. The latter two were shown to have characteristics of patient in §2.2.

I shall now turn to other characteristics of the DO construction. One characteristic that distinguishes DO from GO and *Vgei*DO is that movement from the agent to the recipient/patient is not necessarily implied in DO. This can be seen in the verb *shu* ‘lose’. In (58), although a movement is understood in (a), it is not in (b); further, even for (a), the implication can be cancelled, as (c) shows, suggesting that movement is not a necessary part of the meaning of *shu* ‘lose’ in DO:

- (58) a. *Zuotian wo shu -le ta liangbaikuai qian*
 yesterday I lose-PERF him two-hundred-CL dollar
 ‘Yesterday I lost \$200 to him.’
 b. *Zuotian de kaoshi, wo shu ta shifen*
 yesterday DE exam I lose him ten-point
 ‘Yesterday’s test, I was behind him by 10 points.’
 c. *Zuotian wo shu -le ta liangbaikuai qian, hai mei gei ne*
 yesterday I lose-PERF him two-hundred-CL dollar yet not give PRT
 ‘Yesterday I lost \$200 to him, but I haven’t paid yet.’

If a verb implies movement, such as *huan* ‘return’ and *jiao* ‘teach’, however, the transfer is successful. (59a-b) are unacceptable:

⁷ *Zhun* ‘allow’ is usually used as a control verb, taking a control complement, as in (i).

- (i) *Nage xuesheng hui zhi zhun gao nianji tongxue canjia*
 that-CL student club only allow high grade student attend
 ‘That student club only allows senior students to attend.’

When used in DO, it is not very productive. (ii) is an example:

- (ii) *Laoban zhun -le ta santian jia*
 boss allow-PERF him three-day break
 ‘The boss allowed him a three day break.’

- (59) a. *Wo huan -le ta yiben shu, keshi mei huancheng
 I return-PERF him one-CL book but not-PERF return-succeed
 *‘I returned a book to him, but didn’t succeed in returning it.’
 b. *Wo jiao -le ta yige fangfa, keshi mei jiaocheng
 I teach-PERF him one-CL method but not-PERF teach-succeed
 *‘I taught him a method, but didn’t succeed in teaching him.’

This characteristic also sets DO apart from GO and *VgeiDO*. As we saw earlier, in GO and *VgeiDO*, depending on which aspect of transfer is expressed, the transfer is sometimes successful and sometimes not. Therefore, the difference between DO on the one hand, and GO and *VgeiDO* on the other, must have to do with the range of transfer covered by the DO.

DO exhibits the narrowest range of transfer among the three constructions. Of the four aspects of transfer listed in (15), only act of transfer is expressed by DO. The other three aspects, i.e., instrument of transfer, manner of transfer, and preliminary condition of transfer, are not. On the other hand, because NP₂ is not limited to the recipient role, some sub-types that are not covered in GO and *VgeiDO*, e.g., communicated message, *gaosu* ‘tell’, and expected transfer *qian* ‘owe’, are included.

The following verbs that occur in GO and/or *VgeiDO* do not occur in DO:

- (60) a. creation: *hua* ‘paint’, *zuo* ‘make’, *zhi* ‘knit’, *zao* ‘build’
 b. obtaining: *na* ‘take’, *mai* ‘buy’, *zhan (weizi)* ‘occupy (a seat)’, *zhua* ‘grab’, *ti (kuan)* ‘withdraw (money)’, *liu* ‘reserve’, *dai* ‘bring’
 c. contribution: *juan* ‘donate’, *xian* ‘donate’
 d. promise: *xu* ‘promise’, *anpai* ‘arrange’, *bo* ‘appropriate’
 e. manner of motion: *diu* ‘throw’, *chuan* ‘pass on’, *ti* ‘kick’, *na* ‘carry with hand’, *jia* ‘pick up with chopsticks’, *dao (cha)* ‘pour (tea)’
 f. instrument of communication: *da (dianhua)* ‘make (a phone call)’, *ji* ‘mail’, *chuanzhen* ‘fax’, *hui* ‘remit’

However, there appear to be variations on whether a verb can occur in DO. For Ma (1992), manner of motion verbs in (60e), such as *reng* ‘throw’, enter DO, as in (61):

- (61) Reng wo yige qiu
 throw me one-CL ball
 ‘Throw me a ball’

Similarly, B. Zhang (1999) considers verbs of promise (60d), e.g., *xu* ‘promise’, manner

of motion (60e), e.g., *diu* ‘throw’, and instrument of communication (60g), e.g., *ji* ‘send’ as DO verbs. The lack of consensus on these verbs may be due to dialectal variations. For most speakers in Taiwan, (61) is not acceptable; nor is (62):

- (62) *Ta ji -le wo yifeng xin
 he send-PERF me one-CL letter
 ‘He sent me a letter.’

What is presented here, then, can be considered as representing Taiwan Mandarin.

(63) summarizes the range of transfer expressed in DO and the argument role of the dative object:

- (63) The DO construction
 range of transfer: act (possession, knowledge, provision, giving up,
 communicated message, feeding, permission)
 argument role of dative object: recipient, goal, patient

5. The three constructions compared

In this section I shall consider how GO, *VgeiDO*, and DO are related to each other. Two issues are involved here. First, does the data support the polysemy view? Second, how can the existence of alternation, both three-way and two-way, be accounted for?

5.1 Two dimensions of variation

The data presented in §§2-4 show that the three constructions share similarities as well as differences. All three constructions carry the meaning of transfer, but the distribution of verbs show that the constructions differ in terms of two dimensions: range of transfer and argument role of the dative object or the object of *gei*. (64) is a comparison of the three constructions:

- (64) Comparison of the three constructions in terms of aspects of transfer and thematic role of z, direction of transfer:

	<u>range of transfer</u>	<u>argument role of indirect obj or obj of <i>gei</i></u>
GO	act, manner, instrument, precondition	recipient
<i>VgeiDO</i>	act, manner, instrument	recipient
DO	act	recipient, goal, patient

In terms of range of transfer, the GO construction covers the widest range, followed by the *VgeiDO* construction; the DO construction has the narrowest range, expressing only one aspect of transfer. As for the argument role of the dative object or the *gei* object, the DO construction allows a wider range, whereas in both the GO construction and the *VgeiDO* construction the object only has the recipient role.

(65) is a comparison of verbs that do or do not occur in each construction:

(65) Comparison of verbs in the three constructions

<u>subclass</u>	<u>representative member</u>	GO	<i>VgeiDO</i>	DO
(a)				
transfer of possession	<i>song</i> 'give as present'	yes	yes	yes
transfer of knowledge	<i>chuanshou</i> 'pass on'	yes	yes	yes
provision	<i>tigong</i> 'provide'	yes	yes	yes
referral	<i>jieshao</i> 'introduce'	yes	yes	yes
giving up possession	<i>shu</i> 'lose'	yes	yes	yes
(b)				
contribution	<i>juan</i> 'donate'	yes	yes	no
manner of motion	<i>diu</i> 'throw'	yes	yes	no
instrument of communication	<i>ji</i> 'mail'	yes	yes	no
promise	<i>xu</i> 'promise'	yes	yes	no
(c)				
teaching	<i>jiao</i> 'teach'	no	yes	yes
(d)				
creation	<i>zuo</i> 'make'	yes	no	no
obtaining	<i>mai</i> 'buy'	yes	no	no
(e)				
feeding	<i>wei</i> 'feed'	no	no	yes
communicated message	<i>gaosu</i> 'tell'	no	no	yes
future having	<i>zhun</i> 'allow'	no	no	yes

The verbs are arranged into five groups according to the pattern they display. Group (a) exhibits the three-way alternation, while (b) and (c) allow two-way alternations, between GO and *VgeiDO* for (b), and between *VgeiDO* and DO for (c). No alternation is allowed for verbs in either (d) or (e); only GO is possible for verbs in group (d), and only DO is possible for verbs in group (e).

A few observations can be made from (64) and (65). First, of the three constructions, the GO construction and the *VgeiDO* construction are more closely related. This can be

seen from two aspects. Both constructions require the object to be the recipient, further, of the 15 verb classes listed in (65), GO and *V_{gei}DO* share 12 of them, which either occur in both constructions or are excluded from both. Second, even though syntactically the DO construction is similar to the *V_{gei}DO* construction, both having the structure V-dative object - direct object, (64) and (65) show that the two constructions are not that similar. While the dative object in DO can be recipient, goal, or patient, the dative object in *V_{gei}DO* is recipient only. In addition, 7 of the 15 classes show opposite patterns between the two constructions, occurring in one but not both constructions. Third, except for group (a) verbs, the GO construction and the DO construction have no verbs in common. This finding is striking, particularly when we compare the situation with English, where extensive literature has shown that many verb subclasses participate in the dative alternation between the prepositional construction and the DO construction. Gropen et al. (1989), for example, lists 9 classes of verbs that participate in the dative alternation. Finally, only five verb classes occur in all three constructions, suggesting that the three-way alternation is rather limited in Chinese.

Overall, (64) and (65) support the polysemy view. The three constructions express different meanings with some overlap. They differ in the range of transfer and the argument role of the dative object or the *gei* object, as reflected in the verbs that occur in each construction. The data also shows that the number of verb classes that occur in all three constructions is actually rather small, being limited to a few subclasses. In §5.3 I shall offer an account of when alternation is more likely to occur on the basis of the two dimensions outlined in (64), but in §5.2 I shall first consider how the variants are related to one another.

5.2 Similarities among variants

First of all, a verb that occurs in more than one construction does not necessarily participate in the dative alternation. For example, *dai* ‘carry, bring’ occurs in GO and *V_{gei}DO*, as in (66):

- (66) a. Ta dai -le yixie weitaming gei yeye
 he bring-PERF some vitamins to grandpa
 ‘He brought some vitamins to Grandpa.’
 b. Ta daigei wo xuduo kuaile
 he bring-to me much happiness
 ‘He brought me much happiness.’
 c. *Ta dai wo xuduo kuaile
 he bring me much happiness
 ‘He brought me much happiness.’

However, additional restrictions apply as to when it occurs in either construction. In GO, *dai* typically takes a concrete object, whereas as in V*gei*DO, it mostly takes an abstract object. This explains why (67a-b) are less acceptable than (66a-b).

- (67) a. ?*Ta dai -le kuaile gei wo
 he bring-PERF happiness to me
 'He brought happiness to me.'
 b. ?Ta daigei yeye yixie weitaming
 he bring-to grandpa some vitamins
 'He brought some vitamins to Grandpa.'

Rang 'yield' is another verb that is subject to additional restrictions, as demonstrated in (68)-(69):

- (68) a. Xianzai de nianqing ren hui rang weizi gei laonian ren ma
 now DE young people will yield seat to old people Q
 'Will young people these days offer their seat to old people?'
 b. Zuotian neipan qi, Laowang rang -le ta san zi
 yesterday that-CL chess Laowang yield-PERF him three pieces
 'In yesterday's chess game, Laowang gave him three pieces (as a handicap).'
- (69) a. ?*Zuotian neipan qi, Laowang rang -le san zi gei ta
 yesterday that-CL chess Laowang yield-PERF three pieces to him
 'In yesterday's chess game, Laowang gave him three pieces (as a handicap).'
- b. *Xianzai de nianqing ren hui rang laonian ren weizi ma
 now DE young people will yield old people seat Q
 'Will young people these days offer their seat to old people?'

Rang 'yield' takes different objects in GO and DO; an object that is appropriate for GO cannot occur in DO and vice versa. Verbs such as *dai* 'carry, bring' and *rang* 'yield' therefore do not participate in the dative alternation.

If, however, a verb does participate in the dative alternation, then the variants exhibit a characteristic, that is, the variant forms have basically the same meaning; and in addition, they also share syntactic and semantic properties. Consider (1)-(3) again, repeated here:

- (70)(=1) a. Wo song -le yiben shu gei ta
 I give-as-present-PERF one-CL book to him
 ‘I gave a book to him as a present.’
 b. Wo song -gei ta yiben shu
 I give-as-present-to him one-CL book
 ‘I gave him a book as a present.’
 c. Wo song ta yiben shu
 I give-as-present him one-CL book
 ‘I gave him a book as a present.’
- (71)(=2) a. Wo ji -le yiben shu gei ta
 I send-PERF one-CL book to him
 ‘I sent a book to him.’
 b. Wo jigei ta yiben shu
 I send-to him one-CL book
 ‘I sent him a book.’
 c. *Wo ji ta yiben shu
 I send him one-CL book
 ‘I sent him a book.’
- (72)(=3) a. *Wo jiao -le yige fangfa gei ta
 I teach-PERF one-CL method to him
 ‘I taught a method to him.’
 b. Wo jiaogei ta yige fangfa
 I teach-to him one-CL method
 ‘I taught him a method.’
 c. Wo jiao -le ta yige fangfa
 I teach-PERF him one-CL method
 ‘I taught him a method.’

First, we have already seen that due to the presence of *gei*, the object in GO and *VgeiDO* must have the role of recipient, while the object in DO need not be. However, in a three-way alternation, the latter must also be a recipient. (73), where the object denotes a location, is unacceptable:

- (73) *Wo song xiangxia yiben shu
 I give-as-present countryside one-CL book
 *‘I gave a book as a present to the countryside.’

Second, in all three forms the theme argument can be questioned in-situ, as in (74):

- (74) a. Ni yao song shenme gei ta?
 you want give-as-present what to him
 ‘What do you want to give to him as a present?’
 b. Ni yao songgei ta shenme?
 you want give-as-present-to him what
 ‘What do you want to give to him as a present?’
 c. Ni yao song ta shenme?
 you want give-as-present him what
 ‘What do you want to give him as a present?’

On the other hand, when the recipient argument is questioned in-situ, the result is less acceptable, as in (75). These sentences can only be interpreted as echo-questions. If the theme argument is topicalized, however, the sentences are all acceptable, as in (76):

- (75) a. ?Ni yao song yiben shu /naben shu gei shei?
 you want give-as-present one-CL book/that-CL book to who
 ‘Who do you want to give a book/that book to as a present?’
 b. ?Ni yao song shei yiben shu /naben shu?
 you want give-as-present who one-CL book/that-CL book
 ‘Who do you want to give a book/that book as a present?’
 c. ?Ni yao songgei shei yiben shu /naben shu?
 you want give-as-present-to who one-CL book/that-CL book
 ‘Who do you want to give a book/that book as a present?’
 (76) a. Neiben shu, ni yao song gei shei?
 that-CL book you want give-as-present to who
 ‘That book, who do you want to give it to as a present?’
 b. Neiben shu, ni yao songgei shei?
 that-CL book you want give-as-present-to who
 ‘That book, who do you want to give it to as a present?’
 c. Neiben shu, ni yao song shei?
 that-CL book you want give-as-present who
 ‘That book, who do you want to give it to as a present?’

Again, the three forms behave in the same way. The same thing can be observed in *ji* ‘mail, send’, which participates in a two-way alternation:

- (77) a. ?Ni yao ji yifeng xin gei shei?
 you want mail one-CL letter to who
 ‘Who do you want to mail a letter to?’

- b. ?Ni yao jigei shei yifeng xin?
 you want mail-to who one-CL letter
 ‘Who do you want to mail a letter to?’
- (78) a. Neifeng xin ni yao ji gei shei?
 that-CL letter you want mail to who
 ‘That letter, who do you want to mail it to?’
- b. Neifeng xin ni yao jigei shei?
 that-CL letter you want mail-to who
 ‘That letter, who do you want to mail it to?’

The ability to passivize also groups the three forms together. Only the theme argument, as in (79), but not the recipient argument, as in (80), can be passivized:

- (79) a. Neiben shu bei ta song gei Lisi le
 that-CL book by him give-as-present to Lisi PRT
 ‘That book was given by him to Lisi as present.’
- b. Neiben shu bei ta songgei Lisi le
 that-CL book by him give-as-present-to Lisi PRT
 ‘That book was given by him to Lisi as present.’
- c. Neiben shu bei ta song -le Lisi
 that-CL book by him give-as-present-PERF Lisi
 ‘That book was given by him to Lisi as present.’
- (80) a. *Lisi bei ta song -le yiben shu gei
 Lisi by him give-as-present-PERF one-CL book to
 *‘Lisi was given to a book as a present.’
- b. *Lisi bei ta songgei yiben shu
 Lisi by him give-as-present-to one-CL book
 *‘Lisi was given a book as a present by him.’
- c. *Lisi bei ta song -le yiben shu
 Lisi by him give-as-present-PERF one-CL book
 *‘Lisi was given a book as a present by him.’

(80a) is much worse than (80b-c), as the co-verb *gei* cannot be stranded. Still, even without the stranding of *gei*, (80b-c) are not well-formed. In addition, extraction of the dative object or the *gei* object to the topic position produces unacceptable results for all three forms:

- (81) a. *Nage ren wo huan -le yiben shu gei
 that-CL person I return-PERF one-CL book to
 *‘That person I returned a book to.’
 b. *Nage ren wo huangei yiben shu
 that-CL person I return-to one-CL book
 *‘That person I returned a book.’
 c. *Nage ren wo huan -le yiben shu
 that-CL person I return-PERF one-CL book
 *‘That person I returned a book.’

Again, (81a) is worse than (81b-c), as stranding of *gei* is worse than extracting a dative object.

The variants also have the same inference patterns. In a three-way alternation, the three variants share the inference that transfer is successful, as we have seen in (13a), (40a) and (59a), repeated here:

- (82) a.(=13a) *Ta song-le yishu hua gei Lisi, keshi mei songdao
 he give -PERF one-bundle flower to Lisi, but not-PERF give-arrive
 *‘He gave a bouquet to Lisi, but it didn’t get there.’
 b.(=40a) *Wo huangei Lisi yiben shu, keshi mei huandao
 I return-to Lisi one-CL book but not-PERF return-arrive
 *‘I returned a book to Lisi, but it didn’t get returned.’
 c.(=59a) *Wo huan -le ta yiben shu, keshi mei huancheng
 I return-PERF him one-CL book but not-PERF return-succeed
 *‘I returned a book to him, but didn’t succeed in returning it.’

In contrast, in a two-way alternation, the two variants both have the inference that the transfer is not necessarily successful, as in (13b-c), (40b-c), repeated here:

- (83) a.(=13b) Zhangsan diu -le yige qiu gei Lisi, keshi mei diudao
 Zhangsan throw-PERF one-CL ball to Lisi but not-PERF throw-arrive
 ‘Zhangsan threw a ball to Lisi, but it didn’t get there.’
 b.(=13c) Wo ji -le yifeng xin gei tamen, keshi mei jidao
 I send-PERF one-CL letter to them but not-PERF send-arrive
 ‘I sent a letter to them, but it didn’t get there.’
 (84) a.(=40b) Wo diugei Lisi yige qiu, keshi mei diudao
 I throw-to Lisi one-CL ball but not-PERF throw-arrive
 ‘I threw Lisi a ball, but it didn’t get there.’

- b.(=40c) Wo jigei Lisi yifen xin, keshi mei jidao
 I mail-to Lisi one-CL letter but not-PERF mail-arrive
 ‘I sent Lisi a letter, but it didn’t get there.’

Thus (70)-(84) demonstrate that the variants in an alternation share a number of syntactic and semantic properties; the variant forms in an alternation, e.g., (70a-c), (71a-b), and (72b-c), have much in common and can be considered paraphrases of one another or each other. This does not mean that one variant can substitute for another in a given context, as factors of information structure will no doubt affect when it is appropriate to use one variant rather than any other. Nonetheless, on the basis of the variants having the same meaning, we can then consider the issue of whether the dative alternation in Chinese is regulated. Is there a principled reason why certain verbs allow the three-way alternation, certain other verbs allow the two-way alternation and still others allow no alternation? In the next section I shall show that this is indeed the case.

5.3 When is an alternation likely?

The only study that has considered the issue of when the dative alternation is possible in Chinese is Chung & Gordon (1998). Their analysis is based on Pinker (1989). Pinker (1989) proposes a set of narrow range rules for the dative alternation in English. These rules classify verbs into narrowly defined semantic classes, and they serve as sufficient conditions for verbs to occur in the dative alternation. Chung & Gordon (1998) suggest that rather than being viewed as rules for the dative alternation in English, the narrow range rules can be considered as defining verb classes that enter the DO. Chung & Gordon also suggest that the same strategy can be applied to Chinese. That is, a set of narrow range rules can be defined for verbs that occur in the DO construction in Chinese. Four semantic verb classes are considered to participate in the narrow range rules which license the verbs to occur in the Chinese DO construction: verbs of giving, verbs of communication, verbs of obtaining and verbs of consuming. By interpreting the narrow range rules not as licensing the dative alternation, but as licensing the ability to dativeize, however, Chung & Gordon in the end do not address the alternation issue.

To account for the pattern of alternation in Chinese, I shall rely not on narrow range rules, but on differences in meaning among the three constructions. One of the observations made in §5.1 is that the meanings of the three constructions differ with respect to two dimensions: range of transfer denoted by the verb and argument role of the dative object or the *gei* object. These two dimensions can be considered as meaning components of the dative constructions. Each dimension includes a number of settings. For example, range of transfer includes act, manner, instrument, and precondition. In

addition, act of transfer itself has two sub-dimensions: a sub-dimension of different types of transfer, e.g., possession, knowledge, referral, and a sub-dimension of status of transfer, e.g., realized transfer, future, possible transfer, and expected transfer. As for the dimension of argument role of the dative object or the *gei* object, it includes the settings recipient, goal, and patient.

On each dimension the settings form a hierarchy in terms of core, extended and further extended. Thus on the dimension of range of transfer, I take act to be the core; manner and instrument are the extended, and a preliminary condition is the further extended. On the sub-dimension of types of transfer, transfer of possession is the core, while referral belongs to the extended, and other types of transfer are somewhere in-between. In terms of status of transfer, successful transfer is the core, while future and expected transfer are the extended. Finally, with respect to argument role of the dative object or the *gei* object, recipient is the core, while goal and patient are the extended.

In the constructional approach, then, various meanings of transfer can be grouped into core, extended, and further extended. The core meaning of transfer is successful transfer of possession to a recipient, while an extended meaning of transfer involves other types of transfer, or transfer to a patient or goal, and an even further extended meaning of transfer arises when a precondition of transfer, which itself is not a transfer, is involved. We shall see that this classification of meanings of transfer to a large extent correlates with the pattern of alternation found in Chinese.

First, consider the environments where three-way alternations are possible. On the basis of (65), they are available when the two dimensions have the following settings:

- (85) Three-way alternations
 range of transfer: act - possession, knowledge, provision, referral
 argument role: recipient

This combination of settings includes the core meaning of transfer, which as mentioned earlier, is limited to transfer of possession to a recipient.

Next, two-way alternations are of two sub-types: (a) between GO and *VgeiDO* and (b) between *VgeiDO* and DO. They have the following settings:

- (86) Two-way alternations
 a. between GO and *VgeiDO*
 range of transfer: manner, instrument, act - contribution
 argument role: recipient

- b. between *V_{gei}DO* and *DO*
range of transfer: act - knowledge
argument role: patient

In (86a), the combination includes extended settings in terms of range of transfer and type of transfer, and a core setting for the argument role. In (86b), the combination includes extended settings for both range of transfer and role of argument. Compared with (85), we can see in both cases the meaning of transfer that is expressed is not the core meaning, but an extended meaning.

Finally, lack of alternation is also of two sub-types, given in (87):

- (87) Settings for no alternation
 - a. range of transfer: precondition
argument role: recipient
 - b. range of transfer: act - feeding, communicated message, future act
argument role: patient, goal

In the first case, the setting of precondition is considered ‘further extended’ on the dimension of range of transfer, while in the second case, on both dimensions the settings are classified as ‘extended’. In comparison with (86a), the meaning of transfer expressed by (87a) is clearly even further extended. On the other hand, it is not clear that the transfer involved in (87b) is further extended than that in (86b); this is the only case where the correlation between the meaning and the pattern of alternation is not obvious. I shall take (87b) as an idiosyncratic fact about Chinese—that verbs of feeding, communicated message, and future act allow no alternation.

Thus in Chinese the possibility and range of the dative alternation to a large extent depend on the meaning of a verb. Verbs with a core meaning of transfer exhibit three-way alternations, verbs with an extended meaning of transfer show two-way alternations, and verbs with an even further extended meaning of transfer show no alternation possibilities.

The core vs. extended distinction also appears to apply in Korean. According to Jung & Miyagawa (2004), in Korean the dative alternation is extremely limited. Only *give*-verbs participate in the dative alternation, whereas other verbs, e.g., *send*-verbs, do not. This means that in Korean only sentences with the core meaning of transfer have alternation possibilities. By contrast, in English a wide range of verbs participate in the alternation, including verbs with core meanings of transfer, e.g., *give*, as well as verbs with further extended meanings of transfer, e.g., *make*, *get*. Thus a hierarchy of cross-linguistic variations of the dative alternation can be observed. English is near one end of

the hierarchy, allowing a wide range of verbs in the alternation, while Korean is near the other end of the hierarchy, allowing only a handful of verbs to participate in the alternation. Chinese is closer to Korean than it is to English; it allows a few more verbs in the three-way alternation, including verbs of provision and verbs of passing on knowledge, but blocks most other verbs of transfer in the alternation.

6. Conclusion

In this study, I have examined the three dative constructions in Chinese. The patterns exhibited by the constructions can be characterized by the constructional approach. While the constructions themselves carry a sense of transfer, different classes of verbs in the constructions result in overlapping, but distinct, meanings among the constructions. Their differences can be analyzed in terms of range of transfer and the argument role of the dative object or the *gei* object. The constructional view also provides an account of the pattern of alternation by allowing various senses of transfer to be distinguished in terms of core vs. extended. On the basis of this distinction, we can see that a verb expressing a core meaning of transfer participates in the three-way alternation, while a verb with an extended meaning of transfer participates in the two-way alternation, and a verb with an even further extended meaning of transfer does not participate in any alternation.

References

- Ahrens, Kathleen. 1995. The meaning of the double object construction in Chinese. *Proceedings of the Sixth North American Conference on Chinese Linguistics*, Vol. 1: *Syntax and Semantics*, 1-10. Los Angeles: GSIL, University of Southern California.
- Chao, Yuen Ren. 1968. *A Grammar of Spoken Chinese*. Berkeley: University of California Press.
- Chung, Ting Ting Rachel, and Peter Gordon. 1998. The acquisition of Chinese dative constructions. *Proceedings of the Boston University Conference on Language Development 22*, 109-120. Somerville: Cascadilla Press.
- Dowty, David. 1991. Thematic proto-roles and argument selection. *Language* 67.3:547-619.
- Goldberg, Adele E. 1995. *Construction: A Construction Grammar Approach to Argument Structure*. Chicago: University of Chicago Press.
- Goldberg, Adele E. 2006. *Construction at Work: The Nature of Generalization in Language*. Oxford: Oxford University Press.
- Goldberg, Adele E., and Ray Jackendoff. 2004. The English resultative as a family of constructions. *Language* 80.3:532-568.
- Gropen, Jess, Steven Pinker, Michelle Hollander, Richard Goldberg, and Ronald Wilson. 1989. The learnability and acquisition of the dative alternation in English. *Language* 65.2:203-257.
- Green, Georgia M. 1974. *Semantics and Syntactic Regularity*. Bloomington: Indiana University Press.
- Huang, Chu-Ren, and Kathleen Ahrens. 1999. The function and category of *gei* in Mandarin ditransitive constructions. *Journal of Chinese Linguistics* 27.2:1-26.
- Huang, Chu-Ren, and Ruo-ping Mo. 1992. Mandarin ditransitive constructions and the category of *gei*. *BLS* 18:109-122. Berkeley: Berkeley Linguistics Society.
- Jackendoff, Ray. 2002. *Foundations of Language: Brain, Meaning, Grammar, Evolution*. Oxford and New York: Oxford University Press.
- Jung, Yeun-Jin, and Shigeru Miyagawa. 2004. Decomposing ditransitive verbs. *Proceedings of the 6th Seoul International Conference on Generative Grammar*, 101-120.
- Kay, Paul, and Charles J. Fillmore. 1999. Grammatical constructions and linguistic generalizations: the what's X doing Y? construction. *Language* 75.1:1-34.
- Li, Charles N., and Sandra A. Thompson. 1981. *Mandarin Chinese: A Functional Reference Grammar*. Berkeley: University of California Press.
- Li, Yen-hui Audrey. 1985. *Abstract Case in Chinese*. Los Angeles: University of Southern California dissertation.

- Li, Yen-hui Audrey. 1990. *Order and Constituency in Mandarin Chinese*. Dordrecht: Kluwer Academic Publishers.
- Ma, Qingzhu. 1992. Xiandai Hanyu de shuangbinyu gouzao [The double object construction in Modern Chinese]. *Hanyu Dongci he Dongcixing Jiegou [Chinese Verbs and Verb Constructions]*, 102-132. Beijing: Beijing Language Institute Publishers.
- Oehrle, Richard. 1976. *The Grammatical Status of the English Dative Alternation*. Cambridge: MIT dissertation.
- Pinker, Steven. 1989. *Learnability and Cognition: The Acquisition of Argument Structure*. Cambridge: MIT Press.
- Tang, Chih-Chen Jane. 1990. *Chinese Phrase Structure and the Extended X'-Theory*. Ithaca: Cornell University dissertation.
- Tang, Ting-chi. 1978. Double object constructions in Chinese. *Proceedings of Symposium on Chinese Linguistics, 1977 Linguistic Institute of the Linguistic Society of America*, ed. by Robert L. Cheng, Ying-che Li, and Ting-chi Tang, 67-96. Taipei: Student.
- Yang, Shu-ying. 1991. *Dative Alternation in Chinese and English*. Storrs: University of Connecticut dissertation.
- Zhang, Bojiang. 1999. Xiandai Hanyu de shuang jiwu jiegou shi [The ditransitive construction in Modern Chinese]. *Zhongguo Yuwen* 1999.3:175-184.
- Zhang, Bojiang, and Sandra A. Thompson. 1998. The ditransitive construction in Mandarin Chinese. Paper presented at the IACL-7 and NACCL-10. Stanford: Stanford University.
- Zhang, Niina Ning. 1998. The interactions between construction meaning and lexical meaning. *Linguistics* 36.5:957-980.
- Zhang, Shi. 1990. Correlations between the double object construction and preposition stranding. *Linguistic Inquiry* 21.2:312-316.

[Received 24 October 2005; revised 22 June 2006; accepted 5 July 2006]

Department of East Asian Studies
 University of Arizona
 Tucson, AZ 85721-0105
 USA
 fliu@email.arizona.edu

漢語的給予句式

劉鳳樞

亞利桑那大學

漢語的給予句式包括三個獨立的句式。某些動詞能在三個句式都出現，某些動詞出現在兩個句式中，還有一些動詞只出現在一個句式中。本文採用句式語法的架構來探討這三個句式的異同。在相同方面，三個句式都和轉移的概念有關，至於它們的不同，則顯現在兩個方面：轉移的範疇和賓語的論元。本文同時也探討促使動詞出現在三個，兩個，或一個句式的因素。這和動詞是否帶有轉移的基本語義有關。帶有轉移基本語義的動詞可以出現在三個句式中，而帶有轉移的引申語義的動詞只能出現在兩個或一個句式中。

關鍵詞：給予，句式語法，雙及物，雙賓，轉移