A Comparative Cognitive Study of the Direction of Transfer in Ditransitive Constructions in Chinese and English

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Abstract

Ditransitive constructions, universally observed across languages, exhibit varying notable variations, especially in the directionality of transfer between Chinese and English, with the unique presence of bidirectional transfer in Chinese. This study aims to thoroughly explain this difference. It is found that culture differences fundamentally underlie the different construal of transfer events. Chinese, a spatiality-dominant language, construes transfer events from multifaceted perspectives, whereas English, with a temporal focus, conceptualizes transfer events in a linear way. This variance in conceptualization leads to differences in verb usage within ditransitive constructions, thereby resulting in different construction meanings in two languages. The construction itself, in turn, can have different degrees of effect on the transfer of direction in two languages. By uncovering the differences of transfer direction in ditransitive constructions between Chinese and English, we can achieve a deeper understanding of the intricate relationship between language, cognition, and culture.

Keywords: ditransitive construction, transfer direction, cultural difference, cognitive difference

1. Introduction

A ditransitive construction is defined as a construction consisting of a (ditransitive) verb, an agent argument (A), a recipient-like argument (R), and a theme argument (T) (Malchukov et al., 2011). Despite its universality, ditransitive constructions are realized in different forms across languages. In both Chinese and English, they are primarily represented by two syntactic patterns: the Double Object Construction (DOC) and Prepositional Object Construction (POC), as shown below:

(1) a. John sent Mary the book.

b. John sent the book to Mary.

(Gries & Stefanowitsch, 2004)

(2) a. S+V+O$_I$+O$_D$

我	送	张三	一本　书
wǒ	sòng	zhāngsān	yī-běn　shū
I	send	Zhangsan	one-CLF　book

'I send Zhangsan a book.'   (Chinese; personal knowledge)

b.   S+V+O$_D$+ Prep.+ O$_I$

我	送	一本　书	给	张三
wǒ	sòng	yī-běn shū	gěi	zhāngsān
I	send	one-CLF　book	to	Zhangsan

'I send a book to Zhangsan.'   (Chinese; personal knowledge)

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In this study, we narrow down our focus to the first type: Double Object Construction (DOC). Previous studies on DOC have primarily centered on two aspects: the syntactic and semantic similarities and differences of DOC between two languages.

As for the syntactic comparison, Ren (2007) proposed that DOCs in Chinese and English exhibit similarities in terms of the categorization of ditransitive verbs and the valency of constructions. Differences lie in the subsystem and specific vocabularies correspondence. However, there is no further explanation toward observed differences.

The semantic perspective on DOCs between two languages center on the reasons leading to the differences in construction meaning. Different approaches offer varying explanations: generative studies deem that the fundamental reason for the differences lies in the distinct functional category G values for the "transfer" meaning shared by DOCs in both languages (He, 2008). The constructional approach attributes the difference in construction meaning to the diverse conceptualizations of the transfer event. This approach underscores the interaction between verbs in DOCs and the construction itself, and highlight the different cognitive perspectives of two languages (Shi, 2004; Zhang, 2006; Liu, 2013; Cheng, 2015). These analyses illuminate the differences between English and Chinese DOCs, delving into the underlying reasons for these differences through both grammatical and cognitive lens.

However, the examination of the differences in DOCs between two languages largely focuses on cognitive aspects, particularly how Chinese and English speakers conceptualize transfer events differently. What drives these diverse ways of conceptualization remains a question requiring further exploration. This study aims to take a further step to analyze the factors contributing to these varied conceptualizations, so as to provide a more thorough understanding of the direction question in DOCs.

After a brief introduction in Section 1, the rest of the article is structured as follows: Section 2 offers an overview of the various directions of transfer both in English and Chinese, underscoring the difference between them. Section 3 and Section 4 discuss the underlying factors motivating the differences in transfer direction. The final section concludes the study.

2. Conceptual Differences in Chinese-English Double Object Constructions

One of the key differences between Chinese and English DOCs, as previously mentioned, is the transfer direction within the construction. In English, the transfer is predominantly from the agent to the recipient, a direction that can be described as rightward transfer. Conversely, Chinese DOCs are characterized by bidirectionality; the transfer can either move from the agent to the recipient (rightward transfer) or from the recipient to the agent (leftward transfer). This section aims to delineate these different directions of transfer in Chinese and English DOCs.

2.1 Rightward Transfer

Rightward transfer is prevalent in both English and Chinese DOCs. Here are some examples.

(3) a. Cobb will **give** you 100 dollars for this golden prize. (COCA)
    b. She **gave** me the flu. (Goldberg, 1995)

In (3a), it is clear that the patient *100 dollars* is transferred from the agent *Cobb* to the recipient *you*. (3b) involves an underlying metaphor "causal events as transfers" (Goldberg, 1995). It is understood in the way that causing an effect is transferring the effect. Thus, the flu is transferred from *she* to *me*. Similar examples can be found pervasively in Chinese:

(4) a.

我	给	小张	一本	字典
wǒ	gěi	xiǎozhāng	yī-běn	zìdiǎn
I	give	xiaozhang	one- CLF	dictionary

'I gave xiaozhang a dictionary.' (Chinese; personal knowledge)

b.

三爷	打	他	四十	巴掌
sān-yé	dǎ	tā	sìshí	bāzhǎng
Third-uncle	slap	him	forty	palm

'Third uncle slapped him forty times.' (Chinese; personal knowledge)

In (4a), the dictionary is transferred from the agent *I* to the recipient *xiaozhang*. (4b) is also understood as a rightward transfer. The force of forty palms is transferred from *sanye* to *him*. The examples provided above all showcase the rightward transfer, where the verbs in the described DOCs clearly indicate a transfer moving from the agent to the recipient, making the direction of the construction easily identifiable. The following examples will demonstrate instances of leftward transfer, contrasting with the previously mentioned rightward transfer examples.

2.2 Leftward Transfer

(5) a. She **charged** me eighty dollars for that beautiful dress. (Cheng & Liu, 2016)

   b. The police **fined** him two hundred dollars. (Shi, 2020)

In example (5a), 80 dollars are transferred from *me* to *she*, illustrating leftward transfer. Similarly, example (5b) shows leftward transfer with two hundred dollars moving from *him* to the *police*. However, some scholars even argue that examples (5a) and (5b) demonstrate rightward transfer (Zhang, 1999; Xu, 2001; Shi, 2020). They explain that in (5a), the scenario can be interpreted as 'she issued an eighty-dollar charge to me'; in (5b), it could be seen as 'the police issued a two-hundred-dollar fine to him'. Nevertheless, this interpretation requires further evidence from the corpora. What remains clear is the occurrence of leftward transfer observed in the above examples. The leftward transfer can also be found in Chinese DOCs.

(6) a.

隔壁 老王	偷了	他	一斤	米
gébì lǎowáng	tōu-le	tā	yī-jīn	mǐ
nextdoor laowang	steal-PFV	him	one-CLF	rice

'Neighbor laowang stole a kilo of rice from him.' (Chinese, CCL)

   b.

我	昨天	买了	小朱	二十个	鸡蛋
wǒ	zuótiān	mǎi-le	xiǎozhū	èrshí-gè	jīdàn
I	yesterday	buy-PFV	xiaozhu	twenty	eggs

'I bought twenty eggs from Xiao Zhu yesterday.' (Chinese, CCL)

Examples (6a) and (6b) both demonstrate leftward transfer: in (6a), rice is transferred from *him* to *nextdoor laowang*; in (6b), eggs are transferred from *xiaozhu* to *I*. However, translating these examples from Chinese into English highlights a challenge in maintaining the DOC form. The English translation requires an additional preposition "from" to preserve clarity. Without it, the semantics of English DOCs become ambiguous. For example, translating (6a) into an English DOC result in 'Neighbor laowang stole him a kilo of rice'. This sentence is ambiguous and can be interpreted in two ways: the first interpretation is 'Neighbor laowang stole a kilo of rice from him' and the second is 'Neighbor laowang stole a kilo of rice for him'. Therefore, the direction of transfer becomes unclear. In contrast, (6a) and (6b), the direction of transfer in Chinese is clearly leftward without ambiguity.

2.3 Bidirectional Transfer

Bidirectional transfer is characterized by the simultaneous occurrence of both leftward and rightward transfer with a single DOC in Chinese, leading to ambiguous directionality that allows for dual interpretations. This is a prominent feature of Chinese DOCs. Here are some examples from Shi (2020).

(7)

我	上	她	一门	英文课
wǒ	shàng	tā	yī-mén	zhōngwénkè
I	teach/learn	he	one-CLF	English course

If we translate (7) into English, it gives rise to two potential interpretations:

Interpretation I: 'I teach her an English course.'

Interpretation II: 'I learn an English course from her.'

From the interpretation, it is clear that the first interpretation involves an abstract transfer from *I* to *her*. While the second interpretation demonstrates the reverse transfer, from *her* to *I*. This duality of interperion is not uncommon in Chinese. The verb *jiè*, signifying either 'to borrow' or 'to lend' used in Chinese DOCs, further exemplifies this phenomenon, yielding two distinct interpretations.

(8)

张三	借	李四	一本	书
zhāngsān	jiè	lǐsì	yī-běn	shū
zhangsan	borrow/lend	lisi	one-CLF	book

Example (8) also gives rise two opposite interpretations. The first interpretation is 'Zhangsan borrows a book from lisi', indicating a transfer of the book from *Lisi* to *Zhangsan*. The second is 'Zhangsan lends lisi a book', which suggests the transfer direction from *Zhangsan* to *Lisi*. This later interpretation aligns with DOC pattern, whereas the first interpretation needs extra proposition to clarify the leftward transfer.

Building on the discussion above, it can be concluded that a singular direction of transfer is prevalent in both Chinese and English. This observation is reinforced by Cheng (2016)'s finding, which, through an analysis of a distributed corpus, demonstrates that rightward transfer is overwhelmingly dominant, accounting for 99.7% of 4462 occurrences in English DOCs and 96% of 6423 occurrences in Chinese DOCs. In addition, there are 13 instances of leftward transfer found in English DOCs, in contrast to 206 instances in Chinese DOCs. Furthermore, unlike in English DOCs, where no instances of bidirectional transfer have been detected, Chinese DOCs exhibit 51 such instances. The following section will delve into the underlying factors behind the difference in bidirectional transfer occurrences between Chinese and English.

3. Cultural Differences between Chinese and English

In this section, we aim to conduct a thorough analysis towards the underlying reasons motivating the differences in transfer direction in Chinese and English. Humboldt (1836) proposed that language serves as the external manifestation of the ethnic spirit, while the ethnic spirit constitutes the inner essence of language; the language of a nation is synonymous with its spirit, and similarly, the spirit of a nation is synonymous with its language. The degree of unity between the two exceeds any conceivable expectation. Therefore, analyzing the language of a nation, in essence, is uncovering its underlying worldview and modes of mentality.

Chinese and English belong to different language families. Chinese is primarily a spatiality-prominent language, while English is a temporality-prominent language (Wang, 2013a). However, this distinction does not deny the presence of temporality in Chinese or spatiality in English. Instead, the prominence of each aspect is relative, positioning each language at different points along a continuum between two poles. This difference is rooted in culture and longstanding traditional mindsets. In the Indo-European linguistic family, it is widely accepted that the nouns originate form verbs. This idea works as the fundamental principle in Indo-European languages and remain unchanged to this day. The essence of this notion is the belief that origin of all things in the world lies in actions, movements, or changes. Movement is considered the internal cause, while stillness is seen as the external manifestation of this internal cause (Nakamura, 1983; Jin, 1996; Wang, 2013b). Thus, movement is the fundamental characteristic of things. The worldview of Indo-European languages involves encoding things from the perspective of time.

The Han Chinese have long been immersed in the traditional mode of thought that "all that fills the universe are myriad things" (Wang, 2013b), holding the belief that all movement originates from the things themselves, which are seen as the subjects of all movement. This belief has cultivated the thinking habit of "observing objects to derive images", thereby placing objects at the center of attention (Wang, 2013b). Focusing on objects is essentially focusing on space. This is because objects carry spatial information, including length, width, height, and the areas, volumes, and other spatial dimensions that arise from these measurements. Therefore, the Chinese worldview involves encoding things from the perspective of space.

Based on the discussion of two different modes of mentality in Chinese and English, the encoding of transfer event differs between the two. In the next section, we will delve into the detailed differences in the encoding of a transfer event in both two languages.

4. Cognitive Differences between Chinese and English

4.1 The Different Conceptualizations of 'Transfer' Verbs between Chinese and English

Different modes of mentality give rise to different ways of construal in encoding the transfer events. This section will explore the variation in how transfer verbs are conceptualized between Chinese and English. The temporality-prominent mentality is characterized by continuity and connectivity, as time constantly flows and passes. This mentality is reflected through a one-dimensional, linear way of thinking. Consequently, transfer events are encoded vigorously with a specific direction, exhibiting unidirectional transfer without overlap. Additionally, Colleman and De Clerck (2011) have compared the verbs used in DOCs from the 18th to the present day to identify any disappearance of verbs or new uses of verbs in DOCs. The table below presents the comparison.

Table 1 present-day DOC verb classes and representatives in the 18th data (Colleman & De Clerck, 2011)

Verb class	Class members attested in the DOC in the 18th-century data
Verbs which inherently signify acts of giving	*give, lend, pay, sell, return, allot, grant, reach, deliver, assign, remit, …*
Verbs of instantaneous causation of ballistic motion	*throw*
Verbs of continuous causation of accompanied motion	*bring, carry, drag*
Verbs of sending	*send*
Verbs of giving with associated satisfaction conditions/Verbs of future transfer	*offer, owe, promise, reserve, assure, …*
Verbs of permission	*allow, permit*
Verbs of refusal/Verbs of future not having	*deny, refuse, save, spare, cost*
Verbs of type of communicated message (aka Verbs of telling, teaching, and showing)	*tell, ask, teach, show, write, recommend, read, inform, answer, …*
Verbs of instrument of communication	/
Verbs of creation/preparation	*make, prepare, fill (a glass), design, …*
Verbs of obtaining	*get, buy, fetch, find, leave, obtain, …*
Verbs of performance sing, play	*sing, play*
Verbs concerned with feelings and attitudes	*envy, forgive, grudge, intend*

The analysis of DOCs reveals nuanced shifts in the verbs used in DOCs. A notable exception to the general trend of stagnation in the introduction of new verb classes within DOCs is observed in the verb class related to instruments of communication, such as *fax, email, radio*, etc., which has been expanded in use.

Conversely, some verbs used in the 18th in DOCs are now obsolete, including "verbs of banishment" (e.g., *dismiss, expel*), "verbs of pure benefaction", (e.g., *hold, flower)*, "communication verbs" (e.g., *inform, repeat*), "verbs concerned with feelings and attitudes" (e.g., *envy, forgive),* and the last group "verbs of dispossession" (e.g., *rob, deprive)* (Colleman & De Clerck, 2011).

Despite these variations, the table indicates that the overarching verb usage in DOC predominantly features rightward transfer. Leftward transfer verbs such as *cost, buy, and deny*, though present, are limited in number. Bidirectional transfer remains notably absent. Therefore, it can be concluded that verbs denoting rightward transfer constitute the dominant usage within English DOCs. This dominant use of rightward transfer underscores a specific directional preference in the use and evolution of English DOCs. Following the spatiality-prominent mentality, Chinese speakers tend to encode events in a spatial and non-liner way. Consequently, when encoding transfer events, different perspectives are adopted, leading to varied transfer directions. The evolution of the DOC in Chinese is a good example, segmented into three pivotal stages.

Initially, during the formation period, spanning from the Yin and Shang dynasties to the pre-Qin era, the use of DOCs began to take shape. This era was characterized by a dominance of rightward transfer (Lu, 2014). Additionally, verbs like *jiè*, to borrow、 *zū*, to rent、 *shē*, to lease、 *lìn*, to lease、 *dài*, to loan、 *qǔ*, to take, denoting bidirectional transfer, have been documented from these ancient times (Shen, 2021). As we move into the expansion period, spanning from the Han dynasty through the Wei, Jin, Northern and Southern dynasties to the Sui and Tang dynasties, a noticeable shift in DOC usage can be observed.

In fact, before the Han dynasty, during the Spring and Autumn and Warring States periods, there was a significant increase in the use of leftward transfer. This marked a deviation from the previously dominant pattern. The ratio of receiving verbs to giving verbs in sentence patterns is 1:4.1 (Liu, 1998), indicating a diversification in the use of DOCs. By the pre-qin period, the frequency of DOCs with a receiving meaning had begun to outnumber those with a giving meaning. When entering Han period, this trend of increasing prevalence of receiving meanings in DOCs continued to gain momentum. Entering the development and standardization period from the Song to the Qing dynasty, further changes were noted. By the Qing Dynasty, the number of DOCs with the meaning of giving significantly decreased. Specifically, Verbs denoting rightward transfer like *sòng*, to send, *shū*, to transport, *dì*, to pass, fail to occur in DOCs (Liu, 1998).

Meantime, China's vast landscape is home to a wide variety of dialects, each with its own unique linguistic features. As for DOCs, they show great diversities. In the southern regions, dialects such as Guangzhou dialect, Suzhou dialect, Wenzhou dialect and Cantonese, exhibit a pronounced preference for verbs conveying left directional transfer in DOCs. Contrastingly, rightward directional transfer is scarcely found in some dialects, such as the Jiangxi dialect (Zhang, 2001). Building on the discussion of the evolution and regional variations of DOCs in Chinese, it is evident the dominance of transfer direction-whether rightward transfer nor leftward transfer- does not maintain consistency throughout the historical development of DOCs. Moreover, bidirectional transfer verbs have been observed since ancient times. In summary, the direction of transfer in Chinese DOCs exhibits remarkable diversity.

4.2 The Interaction between the Verb and the Function/Meaning of the Ditransitive construction

The different construal of transfer events gives rise to varied verb usage in the DOCs. This section will further explore how these verbs interact with the meanings of DOCs. Construction grammar adopts a usage-based approach. Usage-based theory maintains that the cognitive representations of language emerge through, and are shaped by, language use (Langacker, 1987,2000; Hopper, 1987; Bybee, 2006,2010,2013). As a result, grammar itself is the product of usage. In the usage-based approach, grammatical patterns can be defined at any level of abstraction. Each verbal semantic class is associated with only one sense of the ditransitive construction. Furthermore, the meaning of a construction is derived from the meanings of verbs that prominently occur within that construction (Perek, 2015).

Plenty of corpus evidence has demonstrated that *give* is the prototypical verb used in English DOCs. Collostructional analysis provides compelling evidence for the connection between the meaning of a construction and its verb usage. This analysis concerns "the words occurring in a given slot of a chosen construction, particularly determining the extent to which specific slots in a grammatical structure prefer, or are restricted to, a particular set or semantic class of lexical items" (Gries, 2003). According to Gries (2003), a collexeme analysis of English DOCs found that *give* is by far the strongest collexeme of the construction. Regarding verb type, the top ten verbs belong to "giving" type, encompassing both actual transfer and the metaphorical transfer.

In terms of Chinese DOCs, Zhang (2018) utilizes collostructional analysis to examine the verbs that most frequently collocate with the Chinese DOCs, based on the BCC corpus. The top five verbs identified are *gěi*, to give, *dàigěi*, to bring, *chuángěi*, to pass on, *shōu*, to receive, *qiàn*, to owe. Although *give* ranks as the top verb, but two of the top five verbs denote a receiving meaning. To further analyze the correlation between verbs and DOCs, this study classifies verbs according to semantic types, and statistically analyzes the collocation intensity of verbs from different semantic categories with the DOCs. The results show that verbs belong to the "giving" type constitutes 21.18%, ranking as the most frequent. The "receiving" type ranks second, at 18.82%. Based on these findings, it is concluded that "giving" and "receiving" are the prototypical verbs in Chinese DOCs.

Due to the fact the meaning of a construction is extracted from the meaning of verbs prominently occurring within it (Perek, 2015). we can conclude from the previous discussion that the prototypical meaning of English DOCs is "giving" while for Chinese DOCs, it encompasses transfer, including "giving" and "receiving".

4.3 Event Structure of Double Object Construction in Chinese and English

In terms of the different construction meanings of Chinese DOCs and English DOCs, this section will analyze the different event structures implied by DOCs in both languages. First of all, English DOCs convey a "giving" meaning, establishing an event structure that expresses meta-giving (Zhang, 2020). Since the construction itself encodes 'giving', verbs that inherently lack a "giving" meaning are automatically assigned such a meaning upon entering the construction. Furthermore, verbs that denote receiving meaning have the chance of changing into giving meaning out of the coercion executed by the construction itself (Goldberg, 1995). Consequently, in English DOCs, rightward transfer is the dominant use. Leftward transfer remains a few. No bidirectional transfer has been observed.

In contrast, the event structure of Chinese DOCs presents a different picture. The construction merely provides syntactic slots for complements without specifically encoding a *giving* meaning; it only encodes a more general *transfer* meaning. Thus, verbs with a prototypical *giving* meaning can participate the DOCs to denote rightward transfer. Similarly, verbs with a prototypical *receiving* meaning are able to denote leftward transfer. Verbs that imply bidirectional transfer introduce ambiguity and requires additional components to clarify the specific direction of transfer.

Meanwhile, the event structures of *giving* and *receiving* differ. DOCs expressing *giving* meanings denote a compound event, consisting of two distinct processes: the transfer of ownership of an item and the subsequent acquisition of that item. This structure profiles the transfer of ownership (Lu, 2003). In contrast, DOCs with a *receiving* meaning denote a single event, focusing exclusively on the acquisition of ownership. Thus, it profiles only the acquisition aspect of the transfer.

Therefore, when verbs with bidirectional transfer create ambiguity, this ambiguity can be resolved by leveraging the distinct event structures of giving and receiving (Lu, 2003).

Let's review the examples of bidirectional transfer.

(9)

张三	借	李四	一本	书
zhāngsān	jiè	lǐsì	yī-běn	shū
zhangsan	borrow/lend	lisi	one-CLF	book

In this example, *jiè* (to borrow/lend) exhibits two directions of transfer. To get rid of the ambiguity, two changes can be made.

(10)

张三	昨天	借	李四	一本	书
zhāngsān	zuótiān	jiè	lǐsì	yī-běn	shū
zhangsan	yesterday	borrow	lisi	one-CLF	book

'Zhangsan yesterday borrowed lisi a book.'

Adding 'yesterday' which expresses pass tense, before the verb *jiè* significantly reduces ambiguity. Lu (2003) conducted a test with 40 native Mandarin speakers to evaluate this ambiguity of (9) and (10). For the example (9), 60% of the participants interpreted it as conveying a receiving meaning, while 40% thought it conveyed a giving meaning, indicating considerable ambiguity. However, for the example (10), the interpretation of receiving meaning increased to 77.5%. The key factor here is *yesterday* emphasizes a completed state, which highlights final ownership of the item, thus aligning more clearly with a *receiving* meaning. And adding *gei* is another effective way to make the sentence unambiguous.

(11)

张三	借	给	李四	一本	书
zhāngsān	jiè	gěi	lǐsì	yī-běn	shū
zhangsan	lend	to	lisi	one-CLF	book

'Zhangsan lent lisi a book.'

When *gěi* is added after *jiè* in the sentence, it yields a single interpretation: Zhangsan lent Lisi a book. The key point here is that *jiè* alone in DOC is ambiguous regarding the direction of transfer. However, when *gěi* is included, it clearly indicates the transfer of ownership. In this context, the DOC expresses a complex event in a segmented manner: *jiè* is intepreted as the transfer of ownership of an item, and *gěi* as the acquisition of that ownership.

5. Conclusion

Language is the carrier of the mentality of a nation. The difference of transfer direction in Chinese and English reflect the different mentalities of Chinese and English. Spatially-oriented Chinese tends to construe transfer events from various perspectives, employing a spatial approach. In contrast, temporality-focused English construe transfer events in a linear way and a rigid manner. This difference in mentality influences verb usage in DOC, leading to distinct construction meanings. English DOCs typically convey a *giving* meaning, while Chinese DOCs are more schematic and dependent on specific verb used. This allows for the expression of bidirectional transfer in Chinese DOCs through bidirectional verbs. Studying these directional differences in DOCs between languages unveils the underlying cognitive divergences, enriching our understanding of the connections between language, mind, and culture.

Acknowledgements

References

Bybee, J. (2006). From usage to grammar: The mind's response to repetition". *Language*, *82*(4), 711-733.

Bybee, J. (2010). *Language, usage and cognition*. Cambridge: Cambridge University Press.

Bybee, J. (2013). Usage-based theory and exemplar representations of constructions". in T, Hoffmann. & G, Trousdale. (eds.), *The Oxford Handbook of construction grammar*. Oxford: Oxford University Press (pp. 49–69).

Cheng, Z.Y. (2015). A study of differences of English and Chinese ditransitive constructions from the perspective of cognition. *Journal of Hunan University of Science & Technology Social Science Edition*, 3, 166-170.

Cheng, Z.Y. & Liu, W.H. (2016). Some typological features of English and Chinese Ditransitive Construction. *Foreign Languages and Their Teaching*, 4,79-86.

Colleman, T. & De Clerck, B. (2011). Constructional semantics on the move: On semantic specialization in the English double object construction. *Cognitive Linguistics*, *22*(1), 183-209.

Goldberg, A. E. (1995). *Constructions: A construction Grammar approach to argument structure*. Chicago: University of Chicago Press.

Gries, S. T. (2003). Towards a corpus-based identification of prototypical instances of constructions. *Annual review of cognitive linguistics*, *1*(1),1-27.

Gries, S. T., & Stefanowitsch, A. (2004). Extending collostructional analysis: A corpus-based perspective on 'alternations'. *International Journal of Corpus Linguistics*, *9*(1), 97-129.

He, X.W. (2008). A Minimalist Approach to the Generation of the Double Object Construction in English and Chinese. *Modern Foreign Languages*, *31*(1),1-12.

Hopper, P. (1987). Emergent grammar. In *Annual Meeting of the Berkeley Linguistics Society* (pp. 139-157).

Humboldt, W. (1836). *On language: the diversity of human language-structure and its influence on the mental development of mankind*. translated by Yao X.P. Beijing: The Commercial Press.

Jin, K.M. (1996). *Exploring Brahman and Buddha*. Shijiazhuang: Hebei Education Publishing House.

Langacker, R. W. (1987). *Foundations of Cognitive Grammar. Vol. 1.: Theoretical Prerequisites*. Stanford: Stanford University Press.

Langacker, R. W. (2000). A dynamic usage-based model. in M, Barlow & S, Kemmer. (eds.) *Usage-based models of language*. Stanford: CSLI Publications (pp.1-63).

Liu, S.C. (1998). Examination of the Double Object Structure in Pre-Qin Chinese. *Journal of Hubei University (Philosophy and Social Sciences Edition)*, *25*(4), 68-72.

Liu, Y.H. (2013). On the meaning of ditransitive construction in English and Chinese. *Jiangsu Foreign Language Teaching and Research,* 2, 48-54.

Lu, J. (2003). Some factors influencing tendencies of listeners' interpretations of ambiguous double object constructions. *Chinese Language*, 5, 399-409.

Lu, J. (2014). The historical development and inheritance of the "verb + indirect object + direct object" double object sentence pattern semantics in Modern Chinese. *Collection of Essays on Language and Culture*, *36*(1), 195-209.

Malchukov, A., Haspelmath, M. & Comrie, B. (2011). Ditransitive constructions: A typological overview. In A. Malchukov, M. Haspelmath & B. Comrie (Eds.), *Studies in Ditransitive Constructions: A Comparative Handbook* (pp. 1-64). Berlin, New York: De Gruyter Mouton.

Nakamura, H. (1983). *A History of Early Vedānta Philosophy*. Delhi: Motilal Banarsidass.

Perek, F. (2015). *Argument in Structure in Usage-based construction grammar*. Amsterdam: John Benjamins.

Ren, L.B. (2007). A comparison between English and Chinese ditransitive constructions. *Journal of Xi'an International Studies University*, *15*(2), 63-66.

Shen, X.Y. & Li, D.Z. (2021). Cognitive Motivations of Different Conceptualization Modes of Double Object Constructions in Chinese and English. *Journal of Xi'an Technological University*, *41*(5), 602-608.

Shi, Y.Z. (2004). The conceptual differences between Chinese and English double object structures." *Foreign Language Teaching and Research*, 2, 83-89.

Shi, Y.Z. (2020). Bidirectional transfers of the ditransitive construction in Chinese. *Cognitive Linguistic Studies*, *7*(2), 416-439.

Wang, W.B. (2013a). On the trait of temporality in English and that of spatiality in Chinese. *Foreign Language Teaching and Research*, *45*(2), 163-173.

Wang, W.B. (2013b). The temporality of English and the spatiality of Chinese hidden behind their superficial differences-starting from Humboldt's notion of inner linguistic form. *Foreign Languages in China, 10*(3): 29-36.

Xu, S.H. (2001). Ditransitive construction in English. *Foreign Language Teaching and Research*, 2, 81-87.

Zhang, B.J. (1999). Ditransitive constructions in modern Chinese. *Studies of the Chinese Language*, 3, 175-184.

Zhang, D. (2018). An empirical study of the prototypical meanings of the Chinese ditransitive construction: A corpus-based approach. *Foreign Language and Their Teaching,* 5, 79-88.

Zhang, G.X. (2001). The semantic constraints on the syntactic mapping of the "deprived" constituent. *Chinese Language*, 6,508-518.

Zhang, J. L. (2006). Toward a cognitive study on double-object sentences in English and Chinese. *Journal of Foreign Language*, 6, 28-33.

Zhang, L.F. (2020). The conceptual structure of GIVING event and the difference between English and Chinese double object constructions. *Journal of Foreign Languages*, *43*(5),61-73.

Appendix: List of Standard Abbreviations

A	agent
BCC	BLCU Corpus Center
BNC	British National Corpus
CLF	classifier
COCA	Corpus of Contemporary American English
DO	direct object
DOC	double object construction
IO	indirect object
IOC	indirect object construction
O	object
PFV	perfective
POC	prepositional object construction
PREP	preposition
R	recipient
S	subject
T	theme
V	verb