

# A Comparable Corpus-Driven Study on Dative Variation in Mandarin Chinese and the Pedagogical Implications

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## Abstract

Dative alternation, a phenomenon prevalent across many languages (e.g., ‘I gave the children toys’ and ‘I give toys to the children’), exhibits a more complex structure in Chinese compared to English. This study adopts a comparable corpus-driven statistical approach to analyze dative construction variations across different Mandarin varieties using large corpus. The findings reveal significant regional differences in word order, particularly between preverbal and postverbal structures. These contrasts are consistent with our previous observations on light verb alternation. From a pedagogical perspective, these regional variations highlight the need for teaching materials tailored to different Mandarin varieties, helping learners better understand syntactic diversity and improving their proficiency.

## 1 Introduction

A dative sentence describes a transfer event, commonly conveyed through verbs like ‘give’, ‘send’, or ‘mail’ in English. These transfer events typically involve two objects: the direct object, indicating the theme of the transfer action, and the indirect object, indicating the recipient of the transfer action. For instance, in sentence (1) ‘I gave Mary a book’, the direct object (the theme) is ‘a book’, and the indirect object (the recipient) is ‘Mary’.

(1) I gave Mary a book.

Verb Recipient Them

### 1.1 Dative Alternation in English

Many languages in the world are found to have multiple syntactic forms for encoding the same

transfer event (Bresnan and Nikitina, 2003; Margetts and Austin, 2007, among others). For example, in English, both (2a) and (2b) refer to the same event, but (2a) is a double object structure with the word order Verb Recipient Theme, and (2b) is a prepositional dative structure with the word order Verb Theme Recipient.

(2a) Susan gave the children toys.

Verb Recipient Theme

(2b) Susan gave toys to the children.

Verb Theme Recipient

Bresnan and Hay (2007) argues that the alternative constructions can be found in contexts of repetition, and they are viewed as having overlapping meanings which permit them to be used as alternative expressions or paraphrases.

More interestingly, variation differences are found to exist among different language varieties in dative alternation. Hoffman and Mukherjee (2006) demonstrate that the overall rates of the prepositional dative with ‘give’ are higher in Indian English than British English. Bresnan and Hay (2007) displays that New Zealand and American English differ quantitatively in the effect of animacy on dative alternation. Scholars have extended their researches on dative alternations, comparing American English, African American English, Nigerian English, Ghanaian English, British English, and Australian English. (e.g., Kendall et al., 2011; Akinlotan and Akinmade, 2020; Nyanta, 2017; Bresnan and Ford, 2010).

### 1.2 Dative Alternation in Chinese

Dative alternation in Chinese presents more complexity compared to English. Chinese also has the two word orders existing in English (3a, 3b),

with the order Verb Recipient Theme, and Verb Theme Recipient.

(3a) 我 送 他 一本书  
*wo song ta yibenshu*  
 I gave him one book  
 Verb Recipient Theme  
 ‘I gave him a book.’

(3b) 我 送 一本书 给 他  
*wo song yibenshu gei ta*  
 I gave one book to him  
 Verb Theme Recipient  
 ‘I gave a book to him.’

In addition to these two word orders, Chinese also allows for the recipient to precede the verb, either with (3c) or without the preverbal preposition (3d), which has the order of Recipient Verb Theme.

(3c) 他 每人 赠 了 一本书  
*ta meiren zeng le yi ben shu*  
 he everyone send LE one book  
 Recipient Verb Theme  
 ‘He sent everyone a book.’

(3d) 他 向 图书馆 赠 书  
*ta xiang tushuguan zeng shu*  
 he to library denote book  
 Recipient Verb Theme  
 ‘He donated books to the library.’

Furthermore, the theme can precede the dative verb, as seen in the BA construction (3e) or a topicalized sentence (3f), with the order Theme Verb Recipient.

(3e) 我 把 书 送 (给) 他  
*wo ba shu song (gei) ta*  
 I BA book give(to) him  
 Theme Verb Recipient  
 ‘I gave the book to him.’

(3f) 书 送 (给) 他  
*shu song (gei) ta*  
 book give(to) him  
 Theme Verb Recipient  
 ‘gave the book to him’

Dative alternation in Chinese is notably more intricate than in English. However, systematic

empirical research on the syntactic choices of dative alternation in Chinese is rare. This attention to variation among different Chinese variants is even scarcer.

We have observed differences in the selection of ditransitive sentence structures among Mandarin variants. For instance, certain expressions found in the Taiwan corpus might be challenging for Mainland Chinese speakers to accept (e.g., example (4)).

(4) 赠 书 纽约 布许维克 图书馆  
*zeng shu Niuyue Buxuweike Tushuguan*  
 Present book NewYork Brookwick Library  
 Verb Theme Recipient

‘Present books to the Brookwick Library in New York.’

For example, example (4) from the Taiwan corpus showcases the verb-theme-recipient word order without the postverbal preposition 给 *gei* ‘to’. This is very rare in Mainland corpus, but is quite common in Taiwan corpus.

Due to the lack of a systematic investigation into variations in dative alternation, this study aims to investigate whether different varieties of Mandarin vary in the probabilities of these choices, utilizing a comparable corpus-driven statistical approach.

In the context of international Chinese education, understanding regional variations in dative alternation is crucial for improving pedagogical strategies. Mandarin Chinese, spoken in Mainland China, Taiwan, Hong Kong, and Singapore, shows significant syntactic differences, which may pose challenges for learners. Investigating these variations can help design teaching materials that are sensitive to these regional differences, offering more tailored and effective instruction for learners based on the Mandarin variety they are likely to encounter.

## 2 Methodology

We have found that dative variation is highly common among Mandarin varieties, showing usage differences across different regions (such as Mainland China, Hong Kong, and Taiwan) and countries (such as Singapore). This study aims to explore potential variations in dative usage probabilities among Mandarin-speaking countries and regions, including Mainland China Mandarin

(MM), Hong Kong Mandarin (HM), Taiwan Mandarin (TM), and Singapore Mandarin (SM). We focus on these four regions because they represent significant centers of Mandarin-speaking populations, each with unique cultural influences that impact language use. This provides a diverse backdrop for studying linguistic variations.

The corpus we use for Mainland Mandarin, Taiwan Mandarin and Singapore Mandarin is the Annotated Chinese Gigaword corpus which was collected and available from LDC and contains over 1.1 billion Chinese words, with 700 million characters from Taiwan Central News Agency, 400 million characters from Mainland Xinhua News Agency, and 30 million Chinese characters from Singapore Lianhe Zaobao (Huang, 2009).

The Hong Kong data was collected from LIVAC (Linguistic Variation in Chinese Speech Communities) Chinese Synchronic Corpus. LIVAC is a large language database which has been cultivated over more than 20 years from more than 700 million words of modern Chinese media language in various regions, including Hong Kong. This corpus is drawn from the representative Chinese newspapers, media and news reports (Tsou and Kwong, 2015).

For data collection, we initially compiled a list of 26 verbs that could be used ditransitively, and extracted sentences containing these words. These 26 verbs were primarily sourced from previous studies and our corpus observations (He, 2008; Liu, 2006; Yao and Liu, 2010), as shown in Appendix A.

Then we process the data with the following steps:

1) Featured the ditransitive sense of the target verb e.g., we distinguish 付 *fu* for ‘to pay’ versus 付 *fu* as a family name; 丢 *diu* for ‘to lose’ and ‘to throw’; 赏 *shang* for ‘to reward’ and ‘to appreciate’;

2) Randomly extracted approximately 1000 tokens for each verb in each variety, resulting in 25,449 tokens in the Mainland Corpus, 27,055 tokens in the Taiwan Corpus, 18,530 tokens for Hong Kong Mandarin, and 19,841 tokens for Singapore Mandarin;

3) Manually selected the dative construction, with both recipient and theme overt, yielding 4,585 tokens in the Mainland Corpus, 3,755 tokens in the Taiwan corpus, 2,450 tokens in the

Hong Kong corpus, and 2,941 tokens in the Singapore corpus;

4) Annotated the alternative types.

We employed a hierarchical perspective (Yao and Liu, 2010.) to annotate dative alternation, as shown in Figure 1. Initially, we delineated two primary categories: postverbal ditransitive and preverbal ditransitive. postverbal ditransitive denotes structures where both recipient and theme appear after the verb. Meanwhile, preverbal ditransitive includes constructions where either theme or recipient precedes the verb.

Within postverbal ditransitive, two distinct word orders emerged: Verb Recipient Theme, exemplified by (3a), and Verb Theme Recipient, seen in (3b). In the realm of preverbal ditransitive, we identified three word orders: Recipient Verb Theme, comprising recipient preceding the verb without a preposition, such as 3c, and adverbial prepositional structures, as in 3d. The second word order, Theme Verb Recipient, encompasses BA construction (e.g., (3e)) and topicalized sentences (e.g., (3f)). The third word order, Theme Recipient Verb, either use preverbal preposition, or in BA construction, as seen in examples below:

(5a) 纪念章 陆续 向 老党员 颁发

*jinianzhang luxu xiang lao dangyuan banfa*

‘The commemorative medals are being presented to veteran party members in succession.’

(5b) 把 那些 原则 向 领袖 传达

*ba naxie yuanze xiang lingxiu chuanda*

‘Convey those principles to the leader.’

● Postverbal ditransitive:
➤ Verb Recipient Theme
➤ Verb Theme Recipient
● Preverbal ditransitive:
➤ Adverbial prepositional structure: Recipient Verb Theme
➤ BA construction: Theme Verb Recipient
➤ Recipient before the verb (without preposition): Recipient Verb Theme
➤ Topicalized sentence: Theme Verb Recipient
➤ Adverbial prepositional structure: Theme Recipient Verb
➤ BA construction: Theme Recipient Verb

Table 1: Hierarchical categorization.

### 3 Data

#### 3.1 Frequency of Dative Usage

Initially, we analyzed the frequency of ditransitive usage. Table 2 indicates that Taiwan verbs exhibit an overall ditransitive usage frequency of approximately 0.1388, while Mainland verbs demonstrate around 0.1802. The frequency of dative usage in Singapore Mandarin is 0.1482, and for Hong Kong Mandarin is 0.1322.

A Chi-square test of independence was conducted to examine the relationship between region and the frequency of using dative constructions. The test indicated a significant association between region and construction use: ( $X^2(3, N = 13,731) = 252.31, p < 0.001$ ). These results suggest that the frequency of using dative constructions varies significantly across regions.

	dative	all	frequency	$X^2$	P-value
MM	4,585	25,449	0.1802	252.31	<0.01
TM	3,755	27,055	0.1388		
HM	2,450	18,530	0.1322		
SM	2,941	19,841	0.1482		

Table 2: Ditransitive frequency comparison.

#### 3.2 Top Ten Verbs

Secondly, we examined the top ten verbs most frequently used ditransitively in each variety, as shown in Figure 1, 2, 3 and 4.

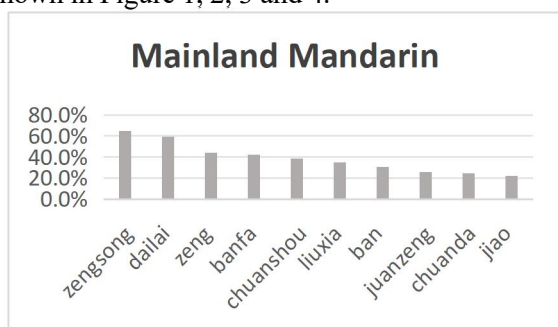


Figure 1: Top 10 Ditransitive verbs/Mainland.

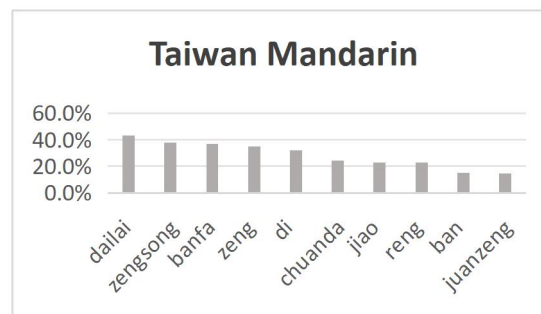


Figure 2: Top 10 Ditransitive verbs/Taiwan.

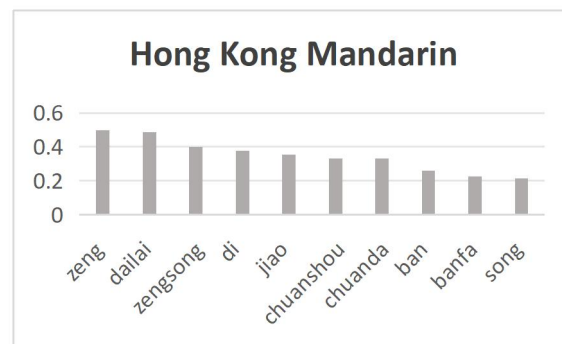


Figure 3: Top 10 Ditransitive verbs/Hong Kong.

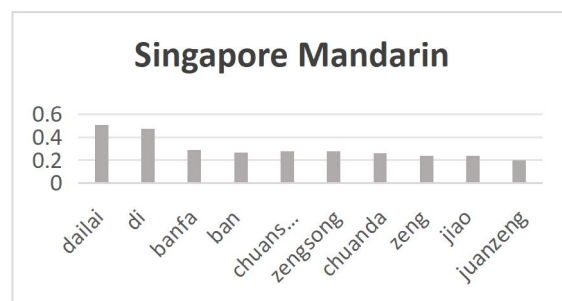


Figure 4: Top 10 Ditransitive verbs/Singapore.

Notably, the majority of these verbs are common in all the regions, with only three exceptions. In Mainland Mandarin, the unique word is 留下 *liuxia*. In Taiwan Mandarin, the unique word is 扔 *reng*, and in Hong Kong Mandarin is 送 *song*. Interestingly, we observed that for the word in Mainland Mandarin, 留下 *liuxia* prefers accompanying abstract direct objects, e.g., 留下回忆 *liuxia huiyi* ‘leave memory’, 留下印象 *liuxia yinxiang* ‘to leave impression’. While for the unique words in Taiwan Mandarin (扔 *reng*) and Hong Kong Mandarin (送 *song*), they tend to pair with concrete direct objects, e.g., 扔茶杯 *reng chabei* ‘to throw cup’, 送礼物 *song liwu* ‘send gift’.

### 3.3 Distributional Differences

#### 3.3.1 Preverbal vs. Postverbal Variations

We first compared the differences in the frequency of preverbal and postverbal usages across regions. Figure 5 shows the distributional differences in these two orders among different regions (Normalized Ratio = dative usage/all tokens \* 10,000).

Moreover, a Chi-square test of independence was conducted to examine the relationship between region and the use of preverbal and postverbal constructions. The results were significant ( $X^2(3, N = 90,875) = 2420.4, p < 0.001$ ), indicating a statistically significant association between region and construction type.

Pairwise comparisons using Holm's adjustment method revealed significant differences between all pairs of regions (adjusted p-values < 0.05). This suggests that the distribution of preverbal and postverbal usage varies significantly across the regions studied.

Based on the analysis of the data, Mainland Mandarin shows a significant preference for using preverbal dative constructions, while Taiwan Mandarin favors postverbal dative constructions. In Hong Kong Mandarin and Singapore Mandarin, the frequency of preverbal constructions also exceeds that of postverbal constructions, but the difference in frequency between the two types is not as pronounced as in Mainland Mandarin.

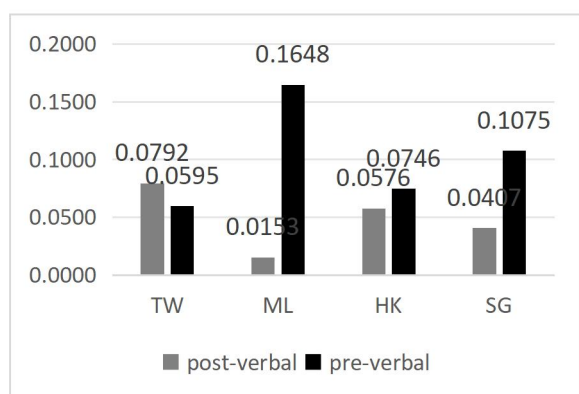


Figure 5: Pre-Post verbal contrasts.

#### 3.3.2 Specific Category

In this section, we examine the differences within the specific categories. The Theme Recipient Verb construction involves a limited number of instances; consequently, we will exclude this

category from subsequent analysis due to insufficient data for robust statistical examination.

A Chi-square test of independence was conducted to examine the relationship between regions and types. The analysis revealed a significant association between the variables ( $X^2(15, N = 27,055) = 4053.6, p < 2.2e-16$ ). This suggests that the distribution of types is not independent of the region, indicating regional differences in type usage.

We conducted pairwise comparisons using the Holm method to adjust for multiple testing, examining the proportions of eight types across four regions (TM, MM, HM, SM). The analysis revealed significant differences across most types in the various regions, with the following three exceptions: MM and SM showed no significant differences in construction with Recipient Verb Theme, while TM and MM exhibited no significant variance in BA construction with Theme Verb Recipient order and topicalized sentence with Theme Verb Recipient.

We further conduct a detailed analysis using proportions. Figure 6 illustrates the usage frequency of each type across the different regions.

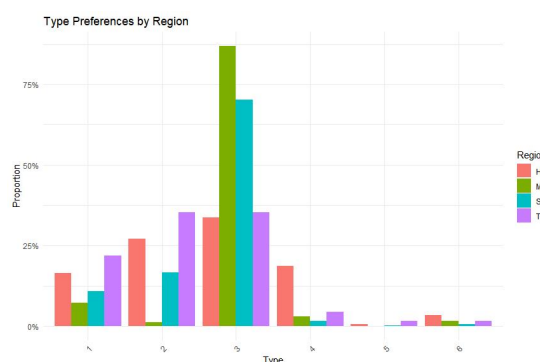


Figure 6: Type preferences by region.

As shown in the figure, among the four regions, Mainland Mandarin (MM) has the most pronounced preference for adverbial prepositional structure with Recipient Verb Theme (example (6)). Additionally, we can observe that Singapore Mandarin (SM) also shows a strong inclination towards using this type of dative construction, as shown in example (7).

- (6) 给孩子们送礼物  
*gei haizi men song liwu*  
 'Give gifts to the children'

-- MM example

(7) 给 孩子 送 点心

*gei haizi song dianxin*

‘Give snacks to the child’

-- SM example

Additionally, Taiwan Mandarin (TM) demonstrates a stronger preference for using constructions with the order Verb Recipient Theme and Verb Theme Recipient compared to other regions, with Hong Kong Mandarin (HM) being the next most inclined, as demonstrated in example (8a-8b) and (9a-9b) respectively.

(8a) 送 管区 青溪 派出所 茶叶

*song guanqu Qingxi paichusuo chaye*

‘send tea to the Qingxi Police Station in the jurisdiction area’

-- TM example

(8b) 送 圣诞节 礼物 给 部署 海外的 士兵

*song Yedanjie liwu gei bushu haiwai de shibing*

‘send Christmas gifts to soldiers deployed overseas’

-- TM example

(9a) 送 台湾歌迷演唱会的限量版“9+1”T 恤

*song Taiwan gemi yanchanghui de xianliangban 9+1 T xu*

‘Give Taiwanese fans limited edition "9+1" concert T-shirts’

-- HM example

(9b) 送 了一束鲜花和一包利市给 母亲

*song le yi shu xianhua he yibao lishi gei muqin*

‘Gave a bouquet of flowers and a red envelope to mother’

-- HM example

Notably, in Taiwan, postverbal objects can be very complicated, as observed in complex examples such as (11a and 11b), a contrast to Mainland Mandarin’s tendency to use prepositional structures with more elaborate indirect objects, as seen in examples like (10).

(10) 向 中国 常驻 联合国教科文组织 代表 张学忠 颁发了 昆曲 艺术的 荣誉称号 证书

*xiang Zhongguo changzhu Lianheguo jiaokewenzuzhi daibiao Zhang Xuezhong banfa le kunqu yishu de rongyu chenghao zhengshu*

‘Award the honorary title and certificate for Kunqu Opera Art to Zhang Xuezhong, China’s Permanent Representative to UNESCO.’

-- Mainland example

(11a) 颁发 纪念章 和 荣誉状 给 二十三 位 党龄 三十 年 以上 的 绩优 及 资深 同志

*banfa jianianzhang he rongyuzhuang gei ershisan wei dangling sanshi nian yishang de jiyou ji zishen tongzhi*

‘Awarded commemorative medals and certificates of honor to 23 outstanding and senior comrades with party experience of more than 30 years.’

-- Taiwan example

(11b) 颁发 奖状 给 任 开平 中学 参赛 学生 代表团 指导 的 两位 饭店 师傅

*banfa jiangzhuang gei ren kaiping zhongxue cansai xuesheng daibiaotuan zhidao de liang wei fandian shifu*

‘Award certificates to the two hotel chefs who served as guides for the participating student delegations from Kaiping Middle School.’

-- Taiwan example

Hong Kong Mandarin shows a stronger preference for using BA construction with Theme Verb Recipient compared to other regions, as shown in example (12).

(12) 把 礼物 送 给 听话 的 孩子

*ba liwu songgei tinghua de haizi*

‘Give the gift to the well-behaved child’

-- HM example

The usage frequencies of Recipient Verb Theme and topicalized sentence with Theme Verb Recipient are relatively low across all regions.

Mainland Mandarin shows a very low preference for using Verb Theme Recipient structure, whereas Taiwan exhibits the highest preference, followed by Hong Kong. Notably, in Taiwan, the postverbal preposition can be omitted in the Verb Theme Recipient structure, as seen in examples (13a), (13b), and (13c). Such usage is relatively common in Taiwan, and a few instances have also been found in the Hong Kong corpus, as shown in (13d). In contrast, in Mainland Mandarin and Singapore Mandarin, no similar instances have been found; the use of the postverbal preposition 给 *gei* ‘to’ is compulsory in most situations in these two varieties.

(13a) 赠 车 马尼拉

*zeng che Manila*

‘Give a car to Manila’

-- TM example

(13b) 赠书 旅奥 侨界 中文 图书室  
*zeng shu lü'ao qiaojie zhongwen tushushi*  
 ‘Donate books to the Chinese library of the overseas Chinese community in Austria’  
 -- TM example

(13c) 赠书 花莲 图书馆  
*zeng shu hualian tushuguan*  
 ‘Donate books to the Hualien Library.’  
 -- TM example

(13d) 付 医疗费 黄威  
*fu yiliaofei Huangwei*  
 ‘Pay the medical expenses for Huang Wei’  
 -- HM example

In summary, Taiwan tends to favor postverbal constructions, particularly Verb Theme Recipient construction. Conversely, other regions prefer preverbal constructions, with Mainland China showing the most pronounced tendency, followed by Singapore. Hong Kong also exhibits a preference for preverbal over postverbal constructions, although this tendency is not as marked as in Mainland China and Singapore.

## 4 Discussion

### 4.1 Light Verb Variations

The contrast between preverbal and postverbal structures aligns with our observations on light verb alternation in Chinese. In examining light verb constructions, we notice that for the semantically bleached light verb (e.g., 进行/加以/做/搞/从事 *jinxing/jiayi/zuo/gao/congshi* ‘to do’), predicative content mainly comes from its taken complement, the light verb itself may only contribute aspectual information, without containing any eventive information (e.g., 进行研究 *jinxing yanjiu* ‘to conduct research’). Since the taken complement is often verbal, the complement itself can take another theme (whether internal or external). For example, 进行研究可行性 *jinxing yanjiu kexingxing* ‘to conduct research on practicability’). However, we have observed that there are different alternative patterns to introduce the theme of the verbal object in the corpus data, as shown in Table 3.

	Description	Examples
Type 1 PP_LV_H	Prepositional structure before light verb	对可行性进行研究 <i>dui kexingxing jinxing yanjiu</i> for _practicability_proceed_research
Type 2 LV_NP_H	Theme as a modifier between light verb and complement	进行可行性研究 <i>jinxing kexingxing yanjiu</i> proceed _practicability_research
Type 3 LV_NP_DE_H	prepositional structure appears between light verb and taken complement with DE	进行 (对) 可行性的研究 <i>jinxing ( dui) kexingxing de yanjiu</i> proceed_(for)_practicability_DE_research
Type 4 LV_PP_H	prepositional structure appears between light verb and taken complement	进行 对可行性研究 <i>jinxing dui kexingxing yanjiu</i> proceed_for_practicability_research
Type 5 LV_H_NP	Theme can directly follow light verb complement	进行研究可行性 <i>jinxing yanjiu kexingxing</i> proceed_research_practicability

Table 3: Alternative types for light verb construction.

The results indicate that 进行 *jinxing* in Mainland Mandarin prefers alternation Type 1: such as in example (14). While in Taiwan Mandarin, 进行 *jinxing* is favored by Type 2 (as in 15)), Type 4 (as in 16)), and Type 5 (17a,17b,17c)).

We have observed significant differences in the preference of word order between Mainland and Taiwan Mandarin. For the light verb 进行 *jinxing*, the theme in Taiwan Mandarin prefers to appear after the light verb (either between the light verb and the complement or follow the complement), while the theme in Mainland Mandarin significantly prefers to appear before the light verb. This preverbal and postverbal contrast is consistent with what we have observed in the variations in dative alternations.

#### Type 1: PP\_LV\_H

(14) 对政策进行调控

*dui zhengce jinxing tiaokong*

‘to regulate policies’

#### Type 2: LV\_NP\_H

(15) 在此地区进行森林砍伐  
*zai ci diqu jinxing senlin kanfa*  
'to log in this region'

**Type 4: LV\_PP\_H**

(16) 进行 对 市政府工务部门质询  
*jinxing dui shizhengfu gongwu bumen zhixun*  
'To conduct an inquiry into the municipal government's public works department.'

**Type 5: LV\_H\_NP**

(17a) 进行研制高级复合材料减速板  
*jinxing yanzhi gaoji fuhe cailiao jianfuban*  
'To develop advanced composite materials for speed bumps.'

(17b) 开始进行处理教育预算  
*kaishi jinxing chuli jiaoyu yusuan*  
'To start processing the education budget.'

(17c) 进行调整自用车辆税费  
*jinxing tiaozheng ziyong cheliang shuifei*  
'To adjust the tax and fees for personal vehicles.'

## 4.2 Pedagogical Implications

From a pedagogical perspective, these findings have significant implications for international Chinese education. Language learners from different regions will likely encounter distinct constructions depending on the Mandarin variety they are exposed to. For instance, a learner from Taiwan might find it more intuitive to use postverbal constructions, while a Mainland learner may be more accustomed to preverbal constructions. Understanding these regional differences allows educators to better tailor their teaching strategies and materials to meet the needs of learners from diverse backgrounds. Additionally, highlighting these variations can help students appreciate the richness of Mandarin's syntactic flexibility, fostering a more nuanced understanding of the language.

## 5 Implications and Future Research

The regional variations in dative alternation identified in this study have important implications for both linguistic theory and language education. The observed differences in word order preferences across Mandarin varieties underscore the diversity of Mandarin usage in different regions, which is critical for understanding how language evolves and adapts in different social and cultural contexts. For

international Chinese education, these findings suggest that a one-size-fits-all approach to teaching Mandarin may not be effective. Instead, tailored teaching materials and methods should be developed to address the specific syntactic structures commonly used in the regions from which the learners originate or to which they will be exposed.

Our future research will focus on exploring the typological motivations behind the syntactic variations across different Mandarin varieties. We also aim to examine the factors influencing syntactic choices, including animacy, syntactic complexity, semantic class, definiteness, pronominality, concreteness, and number. By predicting how these factors shape variation in syntactic choices, we seek to highlight the non-random nature of surface form selection.

From a pedagogical standpoint, future studies should investigate how regional syntactic differences can be integrated into teaching materials, such as textbooks, online courses, and teacher training programs. This approach will enhance learners' understanding of syntactic diversity and improve their ability to use the language flexibly in various contexts. Additionally, tools for assessing and adapting to learners' regional backgrounds could further optimize the learning experience.

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## References

- Akinlotan, M., and Akinmade, A. 2020. Dative alternation in Nigerian English: A corpus-based approach. *Glottology*, 10(1-2), 103-125.
- Bresnan, Joan, and Tatiana Nikitina. 2003. On the gradience of the dative alternation. Stanford University.
- Bresnan, Joan, and Ford, M. 2010. Predicting syntax: Processing dative constructions in American and Australian varieties of English. *Language*, 86(1), 168-213.
- Bresnan, Joan, and Jennifer Hay. 2007. Gradient grammar: An effect of animacy on the syntax of



- give in New Zealand and American English. *Lingua*. 1-15.
- He, Xiaowei. (2008). A study on the factors influencing the selection of the ditransitive constructions. *Language Teaching and Linguistic Studies*, (3), 29-36.
- Hoffmann, S., and Mukherjee, J. (2007). Ditransitive verbs in Indian English and British English: A corpus-linguistic study. *AAA: Arbeiten aus Anglistik und Amerikanistik*, 5-24.
- Huang, C. R. 2009. Tagged chinese gigaword version 2.0, ldc2009t14. Linguistic Data Consortium.
- Huang, C. R., Lin, J., Jiang, M., and Xu, H., 2014. Corpus-based study and identification of Mandarin Chinese light verb variations. In *Proceedings of the First Workshop on Applying NLP Tools to Similar Languages, Varieties and Dialects* (pp. 1-10).
- Kendall, T., Bresnan, J., and Van Herk, G. 2011. The dative alternation in African American English: Researching syntactic variation and change across sociolinguistic datasets. *Corpus Linguistics and Linguistic Theory*, vol. 7, no. 2, 2011, pp. 229-244. <https://doi.org/10.1515/cllt.2011.011>
- Liu, F. H. 2006. Dative constructions in Chinese. *Language and Linguistics*, 7(4), 863-904.
- Margetts, A. and Austin, P. (2007). Three participant events in the languages of the world: toward a cross-linguistic typology. *Linguistics*, 45(3):393 - 451.
- Nyanta, D. 2017. Dative alternation in Ghanaian and British varieties of English (Doctoral dissertation, University of Cape Coast).
- Tsou, Benjamin K., and Oi Yee Kwong. 2015. LIVAC as a monitoring corpus for tracking trends beyond linguistics. *Journal of Chinese Linguistics Monograph Series* 25: 447-471.
- Yao, Y., and Liu, F. H. 2010. A working report on statistically modeling dative variation in Mandarin Chinese. In *Proceedings of the 23rd International Conference on Computational Linguistics (COLING 2010)* (pp. 1236-1244).
- 拿 *na* ‘to hand (to)’,  
颁发 *banfa* ‘to award’,  
带 *dai* ‘to bring’,  
赠 *zeng* ‘to send (as gift)’,  
带来 *dailai* ‘to bring’,  
赠送 *zengsong* ‘to send (as gift)’,  
教 *jiao* ‘to teach’,  
介绍 *jieshao* ‘to introduce’,  
传 *chuan* ‘to deliver’,  
留 *liu* ‘to leave (behind)’,  
传染 *chuanran* ‘to pass around (a disease)’,  
留下 *liuxia* ‘to leave (behind)’,  
传送 *chuansong* ‘to deliver’,  
扔 *reng* ‘to throw’,  
传达 *chuanda* ‘to deliver (a message)’,  
丢 *diu* ‘to throw’,  
传授 *chuanshou* ‘to deliver (knowledge)’,  
捐赠 *juanzeng* ‘to denote’,  
赔 *pei* ‘to pay compensation’

## A Verb List

- 送 *song* ‘to send/give’,  
拨 *bo* ‘to allocate’,  
借 *jie* ‘to borrow’,  
递 *di* ‘to hand (to)’,  
付 *fu* ‘to pay’,  
租 *zu* ‘to rent’,  
颁 *ban* ‘to award’,