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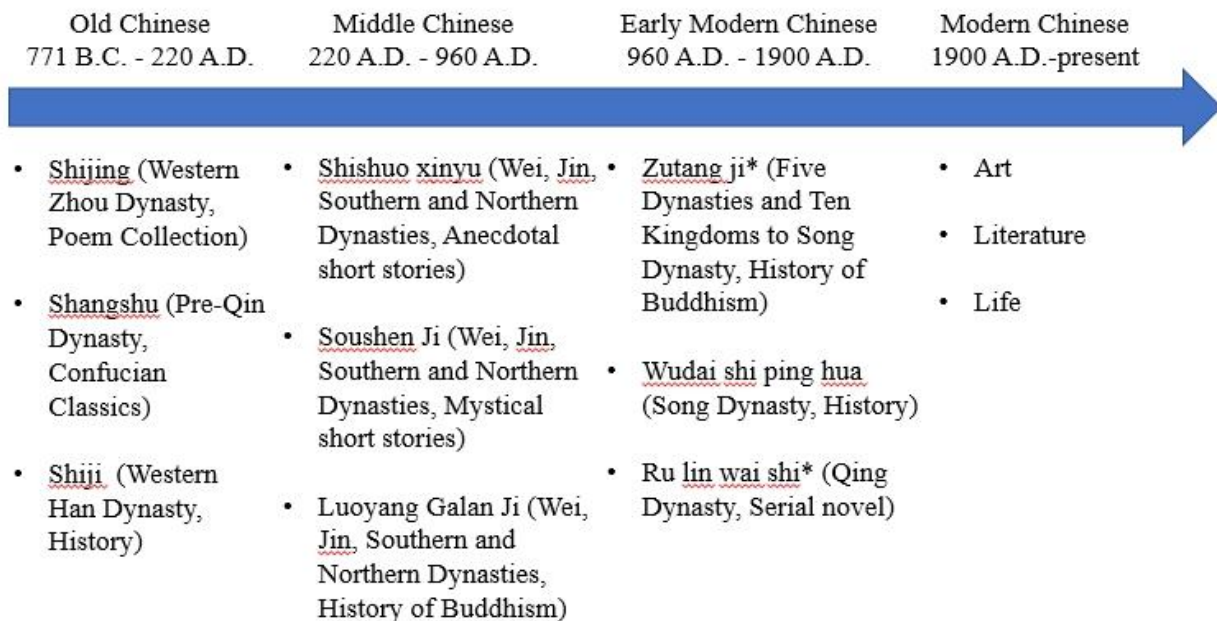NG King Yin

LT5431 Functional Approach to Syntax

Topic: A study on the grammaticalization of *Dou* in Mandarin

Introduction

The functional morpheme *dou* in Mandarin Chinese has intrigued many researchers due to its multifunctionality. *Dou* has been analysed as a universal quantifier (Li, 1993), distributivity marker (Lin, 1998), sum operator (Huang, 1996), and many others. Other researchers (Shyu, 2004) focus on constructions that involve *dou*, such as "*lian...dou*". While much research shed lights on the semantic and pragmatic functions of *dou* in Modern Chinese, little attention has been paid on the transformation of the morpheme itself, that is, how *dou* evolves into what it is today. This paper aims to examine the grammaticalization process of *dou* from a diachronic perspective. Through investigating the usage of *dou* over Old Chinese, Middle Chinese, Early Modern Chinese and Modern Chinese, this paper suggests that *dou* transforms gradually from a lexical item into a distributive marker that increases both in boundedness and abstractness.

Data

The data for this study was drawn from the *Academic Sinica Corpus*. The distribution of lexical categories of *dou*, the use and features of *dou* in each of the period are examined in order to demonstrate its grammaticalization process. The figure below shows the details of the sampled texts:

Old Chinese 771 B.C. - 220 A.D.	Middle Chinese 220 A.D. - 960 A.D.	Early Modern Chinese 960 A.D. - 1900 A.D.	Modern Chinese 1900 A.D.-present
• Shijing (Western Zhou Dynasty, Poem Collection)	• Shishuo xinyu (Wei, Jin, Southern and Northern Dynasties, Anecdotal short stories)	• Zutang ji* (Five Dynasties and Ten Kingdoms to Song Dynasty, History of Buddhism)	• Art
• Shangshu (Pre-Qin Dynasty, Confucian Classics)	• Soushen Ji (Wei, Jin, Southern and Northern Dynasties, Mystical short stories)	• Wudai shi ping hua (Song Dynasty, History)	• Literature • Life
• Shiji (Western Han Dynasty, History)	• Luoyang Galan Ji (Wei, Jin, Southern and Northern Dynasties, History of Buddhism)	• Ru lin wai shi* (Qing Dynasty, Serial novel)	

*Chapters 1-10 only

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Discovery

Old Chinese 771 B.C. - 220 A.D.
It is observed that *dou (du)* in Old Chinese is mainly used as lexical items that signify concrete actions or objects. The total number of occurrence of the word *dou* in the three texts is 97. The distribution of lexical categories of *dou* is listed below:

Text	Category			
	Noun	Verb	Interjection	Adverb
Shangshu	1	0	6	0
Shijing	3	1	0	0
Shiji (except lie zhuan)	16	69	0	1
Total:	20	70	6	1

Table 1. Distribution of lexical categories of *dou* in Shangshu, Shijing and Shiji (except lie zhuan)

As shown in the table, verbs and nouns constitute the majority of the usage of *dou* in Old Chinese. In general, when *dou* is used as verb, it refers to the action of building a capital, and hence the object is usually referential. For example:

(1) *wú wén   zhōuwénwáng* **dū**   *fēng*   *(Shiji)*
   I   heard   emperor   du   place
   "I heard that King Wen of Zhou built the capital in Feng."

Within the noun category, most nouns are inanimate nouns which meaning is equivalent to city or capital in English. Interestingly, *dou* can also be used alone as interjection, without any constituents preceding or following it:

(2) **dōu** *! yì   xíng   yǒu jiǔ   dé*   *(Shangshu)*
   dōu judge   behaviour have nine morality
   Ah! You can judge one's behaviour through nine moral principles.

   Dou is only used once as a scope adverb in the selected texts:

(3) **dū**   *shòu   tiān xià   wěi shū*   *(Shiji)*
   Dū   accept all   under heaven goods transported
   Gather the goods transported from all the places.

In example (3), *dou* carries a meaning of "total", which is somewhat similar to the meaning in Modern Chinese. However, while *dou* in Modern Chinese is mainly used to refer to the circumstance of a subject, the example shown here is different. The *dou* in example (3) is used to describe the circumstance of an action (i.e. gathering goods from all the places).

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Regarding abstractness, the degree of abstractness of *dou* in Old Chinese appears to be low, as it refers to concretes action (i.e. building a capital) and places (city/capital). Moreover, the degree of boundedness of *dou* in Old Chinese is also low. As observed from the texts, *dou* can be placed before an NP (*dū fēng*). It can also be used alone and placed in the initial position of a sentence without linking any other constituents (example 2), and it also occurs near the clause boundary (example 3).

Middle Chinese 220 A.D. - 960 A.D.
From Table 2, it is obvious that interjection is absent in Middle Chinese from the texts we examined. Noun, verb and adverb are the main lexical categories. The majority of the usage of *dou* is adverb while the minority is verb.

Text	Category		
	Noun	Verb	Adverb
Shishuo Xinyu	27	0	38
Soushen Ji	3	1	3
Luoyang Galan Ji	4	1	2
Total:	34	2	43

Table 2. Distribution of lexical categories of dou in Shishuo Xinyu, Soushen Ji, Luoyang Galan Ji

It is interesting that *dou* is commonly used as a verb in Old Chinese but it becomes rare in Middle Chinese. *Dou (Du)*, as a verb, contains the same meaning as the one in Old Chinese, i.e. building a city/capital. An example extracted from Luoyang Galan Ji can illustrate:

(4) Chángguǎngwáng   dū   jìnyáng   (*Luoyang Galan Ji*)
    The Emperor of Changgung   du   place
    The Emperor of Changgung   chose   Jinyang as a capital.

Dou, as an adverb, is predominant in Middle Chinese:-

(5) Kāngbó   dōu wú   yán   (*Shihuo Xinyu*)
    Kangbo   do not have   words
    Kangbo said nothing.

(6) Zhēncháng yuē, "xiǎorén dōu bùkě   yǔ   zuò   yuán"   (*Shihuo Xinyu*)
    Zhenchang say, "cur   all cannot and   make   affinity"
    Zhenchang said, "We cannot make friends with all curs."

(7) (Wángdūn and Qiánfèng) dōu wàng Yòujūn zài   zhàng zhōng (*Shihuo Xinyu*)
    (Person and Person)   all   forget Youjun locate tent   in
    (Wángdūn and Qiánfèng) both forgot that Youjun was in the tent.

(8) Zhìxiǎo ,   jiě   jīnlíng   xì qí   bì, shǐ rén   suí   zhì jiā, dōu   wú
    nǚrén   (*Soushen Ji*)

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>At morning, untie golden ring tie 3-SG-PRO arm, ask people follow to home, all do not have woman
>At the morning, he untied a golden ring and tie on her arm, then asked people to follow her to home, all women was not in the house.

In (6), (7) and (8), *dou* syntactically marks a quantitative function and semantically refers to 'all' or 'both'. It appears that *dou* is a quantitative marker. The grammatical function of *dou* starts shifting from a lexical item "city/capital" to an abstract concept 'all' or 'both'.

Moreover, two *dou*-constructions are found in Middle Chinese. As illustrated in (5), (7) and (8), *dou* precedes the verb phrase. Another construction is that *dou* precedes a negator *bu* and verb phrase. The usage of *dou* is bounded.

It is supposed that *dou*, as a universal quantifier, should follow the plural noun phrase. Surprisingly, a singular subject is acceptable in *dou*-construction in Middle Chinese. From the example (5), Kangbo is a referential singular form NP that precedes *dou*. Another example is also found in the text examined.

(9)   Zhōngláng dōu wú   yán   *(Shihuo Xinyu)*
        Zhonglong do not have word
        Zhonglong said nothing.

The usage of *dou (du)*, as a noun, is similar to the usage in Old Chinese. For example:

(10)   Gāozǔ qiān dū   Luòyì   *(Luoyang Galan Ji)*
        Gaozu move capital place
        Gaozu moved the capital to Luoyi.

In short, the lexical categories of *dou* are changing. The texts provide evidence that *dou* in Middle Chinese, as an adverb, becomes more common, abstract and bounded than in Old Chinese. We can find the basic *dou*-constructions, i.e. NP (subject/ topic)+*dou*+VP and NP (subject/ topic)+*dou*+*bu*+VP, and these constructions are being used in Modern Chinese.

Early Modern Chinese 960 A.D. - 1900 A.D.

Text	Category		
	Noun	Verb	Adverb
Zutang ji (Chapters 1-10)	3	1	15
Wudai shi ping hua	3	0	9
Ru lin wai shi (Chapters 1-10)	1	0	208
Total:	7	1	232

Table 3. Distribution of lexical categories of *dou* in Zutang ji, Wudai shi ping hua, and Ru lin wai shi

As shown in table 3, adverb is the predominant category in Early Modern Chinese. The number of adverbs accounts for 96.7% of the total. Compare with the distribution during the Old Chinese period,

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the use of *dou* as noun become even rarer during this period. Only 7 nouns were found in the texts examined.

Within the adverb category, the use of *dou* as quantifier has become more prevalent than in the Middle Chinese period. One important feature of such use is that *dou* cannot modify an NP directly. An example is shown below:

(11) *zhèi* ***dōu*** *shì* *bié ren* *jiā* *de* *dōng xi* (*Ru lin wai shi*)
   These dou are others home possessive stuff
   These are other people's stuff.

In the above example, *dou* does not modify the NP but the entire predicate of the sentence (i.e. *shì bié ren jiā de dōng xi*).

More importantly, by Early Modern Chinese, *dou* in many sentences exhibited a clear distributive reading. For example:

(12) *nà xiē* *lǎo ye*， *dōu* *yǒu* *wàn guàn jiā sī* (*Ru lin wai shi*)
   Those old gentlemen *dōu* have many properties
   Each of those gentlemen is extremely rich.

As illustrated in example (12), *dou* induces a distributive reading but not a collective reading on a plural subject. That is, the sentence should be interpreted as "each gentleman has many properties" instead of "all gentlemen sharing that large amount of properties". *Dou*, therefore, emerges as a distributive marker. Moreover, the element that *dou* quantifies must occur to its left. In the above example, the sentence would become ungrammatical if "old gentlemen" follows "*dou*".

Regarding *dou*-constructions, apart from those that can be found in the Middle Chinese period, some new constructions also emerged during the Early Modern period, such as *lian……dou*, which is formed by isolating part of the sentence. Such construction carries the meaning of "even" in English. However, the position of *dou* is again restricted, as the element being isolated must be placed before *dou* in the sentence, as in example (13) :

(13) *lián chuán **dōu** mài le* (*Ru lin wai shi*)
   even ship dou sell ASP
   Even the ship is sold

As shown in the examples above, the use of *dou* in Early Modern period showed a higher degree of boundedness and abstractness. The position of *dou* is subjected to a number of restrictions. Moreover, it has gradually turned from lexical items with concrete meanings, to a distributive marker that induces a more abstract interpretation.

Modern Chinese 1900 A.D. - Present
Dou is commonly found in our daily constituents. In this part, we will focus on the usage in daily life. Three text categories are selected for examination. As shown in Table 4, d*ou* is no longer used as a verb

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and rarely used as a noun. The main usage of *dou* is adverb and its constructions are based on those appears in Middle Chinese and Early Modern Chinese.

Text Category	Lexical Category	
	Adverb	Noun
Art	40	1
Literature	30	0
Life	771	1
Total	841	2

Table 4. Distribution of lexical categories of dou in various text categories.

In Modern Chinese, it is found that *dou* may be omitted in some occasions but some are obligatory.

(14) Xŭduō wénhuà guānchájiā dōu yǐjīng tǐrèn dào yīgè qūshì (extracted from Art category)
  Many culture observer all already experience one-CL trend
  Many cultural observers have already experienced a trend.

(15) Yīshēng hé měiróngshī dōu zhuàn bù dào wŏ de qián (extracted from Life category)
  Doctor and cosmetologist all earn cannot 1-SG possessive marker money
  All doctors and cosmetologists cannot earn my money.

(16) Suŏyŏu "wŏ" piàn tuán yuán dōu xīngfèn bùyǐ (extracted from Art category)
  All 1-SG-PRO film team member all excited extremely
  All team members from "Crouching Tiger Hidden Dragon" were extremely excited.

Example (14) and (15) are grammatical if *dou* is omitted. The function of *dou* triggers a distributive realization (Li, 2011). Li supposes that *dou* is a distributive phrase (DistP) that locate at the head of a distributive projection. It gives possibility on distributive reading over its pluralities. In (14) and (15), the presence of *dou* provides the distributive meaning that 'all of many cultural observers' and 'all doctors and cosmetologists'. However, (16) is obligatory. In (16), the universal quantifier '*Souyou*' is at the beginning of the sentence. *Dou* must be present to project the distributivity.

In view of the evolution of *dou*, it is obvious that *dou* undergoes grammaticalization process. The meaning of *dou* is getting more abstract. *Dou* has its own constructions which syntactically places between the noun phrase and the predicate and semantically project distributivity to the noun phrase.

Application

This study can be applied to teaching and help Hong Kong students differentiate *dou* and *ye* in Mandarin. In Modern Mandarin, *dou* expresses a sense of generalization and often acts as a distributive operator ("each"), whereas *ye* is associated with presupposition and is used to emphasize the similarity

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between events. In Cantonese, however, *dou* is used for both meanings. This becomes the source of difficulty for Hong Kong students to use the two adverbs appropriately.

Understanding the transformation of *dou* helps students distinguish the two adverbs by the method of association. In Old Chinese, *dou* either refers to the act of choosing a capital or a capital/city. Both can be associated with the concept of "big". That is, a place must be big in order to be a center of a country. As time goes by, *dou* is no longer used as verb. The meaning of *dou* was spatialized to refer to "big area", and then at a later stage extends to express "all" or "each". Teachers can guide students to establish an association between the concept "big" and "each" by creating sentences, for example, a city is so big that it has all goods that each individual needs. It is obvious that, unlike *ye*, no sense of comparison is involved in *dou*, and the use of *dou* does not require presupposition. By associating related concepts, students may have a better idea on the differences between *dou* and *ye*.

References:

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