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'ZAI', 'DAO', AND 'GEI' CONSTRUCTIONS
-- A STUDY OF CHINESE WORD ORDER

DISSERTATION

Presented in Partial Fulfillment of the Requirement for
the Degree of Doctor of Philosophy in the
Graduate School of The Ohio State University

By

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1996

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1996
ABSTRACT

The three coverbs zai, dao and gei have been found exhibiting unique word orders by Yuen Ren Chao and other Chinese linguists.

The distribution patterns of zai, dao and gei identify sentence initial, preverbal, and postverbal positions. Occurrences of zai, dao and gei phrases in these positions are associated with aspectual situations and verb types.

In each position, zai, dao and gei phrases manifest distinctive semantic functions. Zai / dao phrase indicates the locational status of participants; and gei phrase indicates giving / receiving and benefactive status of participants.

Distribution patterns of zai, dao and gei phrases and their semantic functions associated with sentence positions can be accounted for by diagramatical iconicity proposed by Haiman (1980: 515) and a series of word order principles based on motivation, one kind of diagramatical iconicity, developed by Tai (1985, 1989). These include Principle of Temporal Sequence, Whole-before-Part, and motivation of conceptual distance. The erosion of iconicity (Haiman 1983, 1985) accounts for ambiguities occurring with preverbal zai / gei phrase and semantic function of zai / dao phrase in static situation. The word order features can also be viewed in the light of the theory of markedness.

Preverbal and postverbal distribution features of the three coverbs have been observed in the history of the Chinese language development. Dialectal variations help understanding some distribution features as well as
uses in the Standard Modern Mandarin. It has been observed that the three
coverbs are still under the process of grammaticalization. This process can be
viewed not only from their status changing from a full verb to a preposition,
then to a marker of certain grammatical concept throughout time, but also
from their functions developing from concrete to abstract uses.
To my parents
ACKNOWLEDGMENT

First of all, I would like to express my gratitude to Professor James H-Y Tai, the chair of my dissertation committee, for his guidance, insights, and critique throughout the writing of this dissertation with his expertise on the Chinese syntax and semantics. His writing and teaching on linguistics in general and Chinese grammar in particular have greatly shaped the thinking of my work.

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Thanks also go to Professor Yan-shuan Lao, Timothy Wong, Frank Hseuh, David Ch'en, secretaries and fellow students from the Department of East Asian Languages and Literatures at The Ohio State University, for their moral support during my graduate study.

My deepest gratitude belongs to my father, whose selfless love and unshakable faith in me paved the way for the completion of this dissertation.
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FIELD OF STUDY

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                         Chinese Linguistics
                         Teaching English to Speakers of Other Languages
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<tr>
<td>CLF</td>
<td>classifier</td>
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<tr>
<td>CON</td>
<td>conjunction</td>
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<td>L</td>
<td>location</td>
</tr>
<tr>
<td>LOC</td>
<td>locative</td>
</tr>
<tr>
<td>NL</td>
<td>place noun</td>
</tr>
<tr>
<td>PRT</td>
<td>particle</td>
</tr>
<tr>
<td>PTS</td>
<td>principle of temporal sequence</td>
</tr>
<tr>
<td>PTSC</td>
<td>principle of temporal scope</td>
</tr>
<tr>
<td>NNR</td>
<td>object /object /action</td>
</tr>
<tr>
<td>RVC</td>
<td>resultative verb compound</td>
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<td>SUR</td>
<td>suffix</td>
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PERIODICIZATION OF CHINESE

Archaic Chinese: 14th c. to 3rd c. B.C.

Oracle Bone Period: 14th c. to 11th c. B.C.

Early Archaic Chinese: 11th c. to 6th c. B.C.
(Shang and Western Zhou dynasties)

Late Archaic Chinese: 5th c. to 3rd c. B.C.
(Warring States period)

Pre-Medieval or Han Chinese: 2nd c. B.C. to 3rd c. A.D.
(Qin and Han dynasties)

Former Han
Later Han

Medieval Chinese: 3rd c. to 13th c.

Early Medieval Chinese: 3rd c. to 6th c.
(Northern and Southern dynasties)

Late Medieval Chinese: 7th c. to 13th c.
(Tang and Song dynasties)

Pre-Modern Chinese: 1250 to 1400 (Yuan and early Ming)

Modern Chinese: From 15th c. (late Ming) on

(Periodicization based on Peyraube 1994)
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CHAPTER I

Introduction

1.0 Word Order Studies

Word order, as one of the more obvious ways in which languages differ from one another, has been attracting studies since the late nineteenth and early twentieth centuries (cf. Tomlin, 1986:1). For the past three decades, interest in word order studies can be broadly outlined into two primary spheres. One is variability of word order, in which the most often discussed word order characteristic is the relative order of the basic constituents: subject, object, and verb. The discussion was stimulated by Greenberg's paper on word order universals (1966) who observed limitations of the actual occurring word order variability across languages.

The other research interest turns to seeking explanations for variability of word order, since the frequencies of the six logically possible orders of the basic constituents differ from language to language (The relative frequencies are SOV = SVO > VSO > VOS = OVS > OSV, according to Tomlin, 1986: 3.), and the degree of flexibility of the order of constituents also vary (In some languages only certain orders of S, O, and V are
grammatical and/or one order is the dominant one, while others allow all six orders, and/or no single pattern is dominant). There were specific studies (cf. Li, ed. 1975) that investigated word order changes through areal, genetic, and historical influences. Explanations were also sought from language typology which has been a major aspect of the functional perspective on grammar. From a functional point of view, the degree of flexibility is related to the function of word order in the language. In some languages, like English, word order indicates which noun phrase is subject and which is object; while in others, order does not necessarily mark grammatical functions, but varies with discourse properties of the different constituents in the clause (cf. Givon 1983, Mithun 1987). In seeking explanations for variabilities of word order, functionalists hold a general acknowledgment which is stated by Tomlin (1986) as follows:

...universal principles of linguistic organization and processing... derive from fundamental cognitive constraints on the processing of linguistic information during discourse production and comprehension. It is assumed...that grammars of human languages are organized functionally. Language specific syntactic alternations serve to signal specific semantic or pragmatic functions, which, in turn, reflect the language specific instantiation of general constraints on the representation, storage, and retrieval of information in the human mind. Neither the syntax of natural languages, nor typological facts related to syntax, can be properly understood when divorced from the psychological and, ultimately biological, constraints on the mind imposed both by its internal organization and structure and by the psycho-social context of human communication.

1 The diachronical and typological problems were addressed in earlier work by Weil, Henri (cf. Weil, 1844 & the English translation by C. Super in 1877. See, Tomlin, 1986:1).
With the above background about word order studies in general in mind, we now turn to studies on Chinese word order.

1.1 Studies on Chinese Word Order

Studies on the Chinese word order are an important part in word order studies in general, and even more so in Chinese linguistic research in particular. It is due to the fact that Chinese is a non-inflectional language that word order plays a central role in coding structural relations. On the one hand, in Chinese, word order marks grammatical relations such that in (1a) below, the subject precedes the main verb and the object follows it: wo 'I' is the subject and fan 'meal' the object. In (1b) the reversed word order makes the sentence ungrammatical and semantically impossible.

(1)a 我吃了饭。  
Wo chi-le fan.  
'I have eaten.'

* b 饭吃了我。2  
fan chi-le wo  
'meal eat PRT I'

On the other hand, Chinese allows considerable flexibilities in word order such that SVO is not the mere order that is grammatical. For instance, in (2a) and (2b), although the basic constituents retain the same

---

2 In the case of 饭吃了我。 Fan chi-le, wo. with wo as the after-thought item, the sentence is all right. Cf. Tai & Hu 1991 for detail.
semantic and grammatical relations that (1a) holds, the word order does not mark those relations as SVO. There are OSV and SOV variations.

(2)a 飯我吃了。
Fan wo chi-le.
meal I eat PRT
'The meal, I ate.'

b 我飯吃了。
Wo fan chi-le.
I meal eat PRT
'I ate the meal.'

These phenomena pose the following questions: 1. If SVO reflects the grammatical relation that is generally kept in Chinese, what relations do other word orders stand for? In other words, what are the functions Chinese word order perform? 2. Since Chinese allows flexible word orders and, if they all stand for distinctive meanings, none of them would be random or autonomous. Then, what determine or motivate these orders?

These questions are closely related to the two major interests in word order studies since the past three decades. Although the extensive study in Chinese word order was stimulated by Greenberg's article (1966), studies of the Chinese word order can be traced back to the 1930s. Mullie in 1932 (see Li & Thompson, 1975:166-167) noticed the different orders of what is now referred to as "definite" and "indefinite" NP subject. He mentions that in Chinese a subject which is determinate tends to be placed before the verb, while whenever the indetermination of the subject of intransitive verbs is expressed in English by the indefinite article, by the absence of an article, or by the partitive demonstrative "there," the subject is placed after the verb in Chinese.
The debate on identification of subject and object among mainland Chinese linguists in the 1950s is essentially the issue of grammatical relationship between verb and the related NP which, to a great extent, touches upon problems of word order. We find echoes of that debate in Y-R Chao's influential work *A Grammar of Spoken Chinese* (1968).

Chao (1968: 69-105) considers the grammatical meaning of subject and predicate in a Chinese sentence "topic and comment, rather than actor and action." Consequently, the subject need not represent the actor. It can represent the place at, place to, object for, and other things. "...The direction of action in an action verb in the predicate need not go outward from subject to object." Chao claims that the ambivalence of verbs as to direction of action is usually resolved either by the linguistic context or by the situational contexts; and the inverted subject-object word order is to achieve greater emphasis or prominence than the V-O order. Chao adopts a semantic and to certain extent, a pragmatic point of view in dealing with subject-predicate relationships, though he shuns direct involvement of discussion about word order.

Since the publication of Greenberg's article (1966), the study of Chinese word order in the past three decades involved issues relating to language typology such as whether Chinese is an SVO or SOV language; whether it has gone through an SVO to SOV word order change; and whether Greenberg's relative word order characteristics can be regarded as the criterion to predict or decide the word order of any language. The study also involved both surface-level and deep-level word orders that made
the definition of word order an issue. A number of unique Chinese constructions that have been principal research topics such as *ba* and *bei* sentences, verb copying, verb compounds, relative clauses, representative sentences, *zai* construction, *dao* construction, *gei* construction, etc. are closely associated with the study of Chinese word order.

Different methodologies have been adopted according to the purpose of study about Chinese word order. To decide the general tendency of the Chinese word order, quantitative analysis (Sun & Givon, 1985; Wang, 1988), historical analysis (Li & Thompson, 1974a,b, 1975), analysis based on Greenberg's relative typological characteristics (Tai, 1973a; Li & Thompson, 1974a,b, 1975, 1976; Meng-chen Li, 1980, see Wei, 1992: 7, 35-36) have been employed. Various grammatical theories such as transformation approach (Tai, 1973b, 1976; Chen, 1978), case grammar (Li, 1990), X' theory (Huang, 1982), semantic analysis (Tai, 1975; Light, 1979), functional approach (Tai, 1985, 1989a, 1991, 1993), etc. have been applied in the study of varied word orders in Chinese. There have been studies on child language acquisition (Yau, 1979, 1981a; Erbaugh, 1982 and Jepson, 1985, see Wei, 1992: 131-133), and on sign language for the deaf (Yau, 1977b, 1982d, 1984, 1987c) in search of the most basic word order in Chinese.

---

3 Timothy Light(1979) states:

Fundamental word order is the least marked order in a language. Base orders may be marked or may not be marked. The two types of orderings are selected on completely different criteria. Base orders for transformation account for surface ambiguity, case relationships, standard movement rules such as extraposition and specify the distinction between one base ordering and another. Fundamental word order simply indicates the predominant unmarked order of a language, permitting the correlation of that order with other language characteristics.
Attempts at deciding the language type for Chinese based on Greenberg's principles have met difficulties, due to the fact that on the one hand, Chinese manifests both SVO and SOV characteristics, and on the other hand, there is doubt about whether Greenberg's principles are the criterion to predict typology of any language. In addition, word order phenomena in many Chinese constructions, especially those unique in Chinese, call for careful study. Difficulties and efforts have led Chinese linguists to make deeper investigations of Chinese word order -- looking for the answer to the two questions posed earlier: why and how Chinese word orders are the way they are.

Recent noticeable progress in the study of Chinese word order is in conformity with the cognition-based functional approach initially proposed in Tai (1989). In a series of works on Chinese grammar (1985, 1989, 1992a,b, 1993a,b) Tai has shown that Chinese word order is iconically-motivated, such that it "often parallels the temporal sequence of events and situations in the conceptual world" and "also tends to follow the whole-before-part schema." In studies on Chinese presentative sentences, paratactic construction, inverted sentences, spatial expressions, modifier-modified construction (Hu, 1995; Liu, 1994, 1995), iconicity principles have been proved to have strong explanatory value to Chinese word order.

1.2 The Theme of the Present Study

Following the above mentioned efforts on the study of Chinese word order, this study is to investigate the word order of one of the most
intriguing constructions, i.e., the construction that contains a Chinese coverb, zai 但, or dao 该, or gei 为.

The basic task of the study is two-fold. First of all, on the basis of the cognition-based functional approach, the study aims at seeking explanations for the peculiar word order of zai, dao, and gei through synchronic analysis. The accompanying diachronic and dialectal investigations of the word order of zai, dao, and gei attempts to trace the grammaticalization process of these coverbs which hints at their word order change.

1.3 Word Order of Zai, Dao, and Gei Phrases

In this section, I will give a brief summary of reasons for studying word order of the three coverbal phrases, zai, dao, and gei phrases.

1.3.1 Coverbs and Coverbal Phrases

The term coverb has been commonly used by Chinese linguists in North America since Yuen ren Chao adopted it in his A Grammar of Spoken Chinese (1968). Coverbs, as defined by Chao, are "a listable number of verbs that occur as first verbs (in a V-V series) with at least the same order of frequency as in other positions." (1968: 749) Chao's definition is a structuralist one. There are varying definitions based on different theories, and this listable group has been named Buci 'complement words' (cf. Lü 1942), Fu Dongci or Ci Dongci 'secondary verbs' (cf. Ding et al, 1961), or prepositions. Actual numbers and members included in the list vary
slightly (In Chao's list there are fifty-seven coverbs (1968: 754-769).). The difficulty of making a clear-cut is caused by a small number of words which demonstrate both verbal and non-verbal characteristics (which include, but not limited to, the coverbs in this study, zai, dao and gei). Thus there are different opinions about how to determine the nature of those marginal words as well as their classifications. My study will show that the obscuring behavior of those words indicates that they are in different degrees of grammaticalization process (Cf. Chapter V).

Regardless of the above mentioned disagreements, the following basic features of this group are commonly acknowledged. First, words in this group all have a verb origin but most of them do not function as the main verb of a clause. They all take objects or in other words, they are all followed by NPs. The construction COVERB + NP is referred to as coverbal phrases.

In this study, I will use the term "coverb" and "coverbal phrase".

1.3.2 Zai, Dao, and Gei Phrases

The three coverbs zai, dao, and gei are verbs in origin, and their original verbal meanings are: zai meaning "to reside; to exist"; dao meaning "to arrive, to reach; to go to"; gei meaning "to give; to supply".

Zai, dao, and gei phrases present interesting word order features that are different from other coverbal phrases. This was first explicated by Chao. He states that among his listed coverbs (1968: 754-769), zai, dao, and gei are the only ones that can occur "as complements" in K-O phrases.
(Chao, 1968: 753). In other words, they can occur in either preverbal and postverbal positions. By preverbal position we refer to the position before the main verb and after the subject, and by postverbal position we refer to the position after the main verb.

This feature of zai, dao, and gei in word order is further illustrated by Li & Thompson, and Norman:

The coverb introduces a noun phrase, and the phrase formed by the coverb plus the noun phrase generally precedes the main verb and follows the subject or topic... zai 'at' and dao 'to,' ...and gei 'to'...under certain conditions each of these three coverbs can occur after the verb. (Li & Thompson: 1981:356-358)

According to Norman,

In the current standard language not all prepositional phrases precede the verb. Phrases headed by zai, dao and gei may occur postverbally; the general rule is that phrases formed with these prepositions occur immediately after the verb when the focus of the sentence in which they occur is on the preposition and its object rather than on the verb itself. Moreover, the set of verbs to which each of the above-mentioned prepositions can be postposed is quite restricted. (1988: 131)

This unique feature in word order may contribute to the puzzle about Chinese language typology depending on how the preverbal and postverbal zai, dao, and gei are treated. Questions that associate with this unique word order that must be answered include: (i) what are syntactic and semantic properties of the three coverbs associated with the different word order.

---

4 "K-O" is the abbreviation used by Chao referring to preposition or "co-verb" and "object" respectively (cf. Chao, 1968, p. xxx). There are a few other coverbs or prepositions that may occur postverbally. For example, zi, in laizi 'come from'; wang, in kaiwang 'go toward.' However, their occurrence is very limited and usually in a fixed construction.
This includes semantic/syntactic functions, syntactic patterns and status of the three coverbs, and their relationship with other syntactic units; (ii) what motivates the different word orders. What are some of the factors that govern or affect the word order of the three co-verbs.

Secondly, *zai*, *dao*, and *gei*, as coverbs, sometimes manifest verbal behaviors and sometimes prepositional behaviors. When behaving as prepositions, they can all be regarded as locatives. This is obvious for *zai* and *dao* because both have a primary function of indicating locations or directions. *Gei* can also be regarded as a locative since its basic function of indicating a goal and a benefactive relates to location and direction. Following the well-known localist hypothesis (cf. Anderson, 1971), locatives, being spatial expressions, are conceptually more basic than non-spatial expressions. If we understand their word order, we should be able to better understand the Chinese word order of non-spatial expressions.

The three locatives have attracted much interest and have been widely studied. However, intertwined with semantic as well as syntactic complexities, there remain controversies.

A. Semantic complications

There is a consensus (though slightly varied in details) among some linguists (e.g., Wang, 1957; Chao, 1968; Tai, 1975; Fan, 1982) that the preverbal locative indicates a general location while the postverbal locative indicates the location as a result of an action. Here we quote Tai (1975) as a representative:

...while the function of a Chinese preverbal place adverbial is to denote the location of an action or a state of affairs, that of a
postverbal one is to denote the location of a participant of an action as a result of the action (1975: 175).

Some argue (e.g., Chen, 1978; He, 1994) that the two functions can be reduced into one, since sentence (3) and (4) can be analyzed in (5) (He, 1994: 2-3)

(3)a 我给他写信。
Wo gei ta xie xin.
I give him write letter
'I write letters for him/her.'

b 我写信给他。
Wo xie xin gei ta.
I write letter give him
'I write to him.'

(4)a 我在桌上写字。
Wo zai zhuozi shang xie xin.
I at table-LOC write letter
'I write characters at the table (or, I am on the table, writing).'

b 我写字在桌子上。
Wo xie xin zai zhuozi-shang
I write letter at table-LOC
'I write characters on the (the surface of) the table.'

(5)

```
S
  /\   VP
 /   \\
 NP  PP[dat/p-loc]i  VP
 /\ /\               /\               /
 wo gei ta  zai zhuozi shang xie xin zi
```

5 The examples are from He without editing.

6 The question mark indicates that acceptance of the sentence is questionable.
Regardless of their differences in approach, the following phenomena exhibited in (6) to (10) need to be taken into consideration.

i. Some locatives show little difference in meaning at preverbal and postverbal position, even though their differences in word order may be attributed to different discourse contexts.

\( \text{(6)a} \) 他在北京住。
\( Ta \ zai \ Beijing \ zhu. \)
he at Beijing live
'He lives in Beijing.'

\( b \) 他住在北京。
\( Ta \ zhu \ zai \ Beijing. \)
he lives at Beijing

\( \text{(7)a} \) 你到沙发上坐。
\( Ni \ dao \ shafa-shang \ zuo. \)
you to sofa-LOC sit
'You sit on the sofa.'

\( b \) 你坐到沙发上方。
\( Ni \ zuo \ dao \ shafa-shang. \)
you sit to sofa-LOC

\( \text{(8)a} \) 房东给他留了一把钥匙。
\( Fangdong \ gei \ ta \ liu-le \ yi \ ba \ yaoshi. \)
landlord to him leave PRT one CLF key
'The landlord left him a key.'

\( b \) 房东留给他一把钥匙。
\( Fangdong \ liu \ gei \ ta \ yi \ ba \ yaoshi. \)
landlord leave to him one CLF key

ii. Preverbal locatives tend to exhibit ambiguity.

\( \text{(9)} \) 他在石头上刻字。
\( Ta \ zai \ shitou-shang \ ke \ zi. \)
he at stone-LOC carve character
\[ a \] 'He is carving characters on the stone.'
\[ b \] 'He is on the stone carving characters.'
In (9), it is possible that "he" and "characters" are on the stone. It is also possible that "he" is not on the stone but "characters" are. In (10), it may be that "he" took a book and sent to the library, or "he" went to the library and dispatched books from there. In (11), one possibility is that "I" introduce someone that "you" don't know to "you"; another possibility is that "I" make the introduction of someone that "you" already know to someone else for you.

B. Syntactic complications

Though in general it is agreed that a preverbal locative is a PP and an adjunct, there are diverse opinions about constituency and syntactic status of a postverbal locative. Some linguists regard it as a PP and a complement but their opinions differ as to whether it is a complement of the preceding verb (e.g., Chao, 1968; Huang & Liao, 1980) or a complement of the previous NP, i.e., the subject and/or the object (e.g., Mulder & Sybesma, 1992). The constituent structure is V|LocativeN (or V|LN). Some others consider the locative the second verbal element in a compound verb. The constituent structure is VLocative|N (or VL|N, e.g., Zhu, 1982; Li, 1990). Both analyses meet difficulties with (12) and (13) separately:
(12) VL|N or V|LN?

VL does not seem to be one constituent. It seems more natural for zai, dao, and gei to be prepositions of the following NPs than suffixes of the preceding VPs.

a. 吃苦在别人前頭
   *chiku-zai bieren qiantou*
   'Be the first to bear hardships.'

b. 折騰到地方
   *zheteng-dao xiangxia*
   'Went to the countryside through sufferings.'

c. 表演給大家看
   *biaoyan-gei dajia kan*
   'Give performance to people.'

(13) V|LN or VL|N?

Again, the trouble of making constituency decision: in contrast to group (12), in this group, VL seems more like one constituent. Should zai, dao, and gei be suffixations or prepositions?

a. 降落到地上
   *jiangluo zai-dishang*
   'Land on the ground.'

b. 跑到操场
   *pao dao-caochang*
   'Run to the playground.'

c. 還給同學
   *huan gei-tongxue*
   'Return the fellow students.'
C. Syntactic position and semantic indication

The complications and controversies above involve the following interaction between syntax and semantics:

i. The relation between preverbal/postverbal locatives and NPs. There are various possibilities.

ii. Verb semantics and their compatibility with NPs.

In addition to above complications, the three locatives exhibit other functions which are recognized by some linguists as being a verb auxiliary, or syntactic markers of which *zai* marks the progressive aspect, *dao* marks the perfective aspect, and *gei* marks the passive or causative constructions (e.g., Li, 1958; Xu, 1992, 1994). These functions can be seen from (14) to (16).

(14) 他正在玩。
_Ta zai wanr ne._
he at play AUX
'He is playing.'

(15) 累到走不動了。
_Lei dao zou bu dong le._
tired AUX walk not move PRT
'I am too tired to walk.'

(16) 車給開走了。
_Che gei kai zou le._
car AUX drive go PRT
'The car was driven off.'

The multi-function and multi-status of *zai*, *dao*, and *gei* with changes in meaning from their verb origin, doubtlessly, indicate that all three elements have been undergoing the process of grammaticalization. Due to inconsistent data sources and different opinions in periodization,
systematic study on grammaticalization of zai, dao and gei in terms of diachronic change, is still in the preliminary stage.

1.4 Organization of the Study

The rest of the study is organized in the following manner: Chapter II presents the theoretical framework. Chapter III summarizes the descriptive analyses of zai, dao and gei. This includes their distribution patterns, semantic functions, and their relationships with different verb types and verb arguments in regard to their sentence positions. Chapter IV is devoted to a synchronic explanation of the word orders of zai, dao and gei from the cognition-functional point of view. Chapter V includes diachronic and dialectal studies of zai, dao and gei, and their grammaticalization. Chapter VI is the conclusion.
CHAPTER II

Theoretical Background

2.0 Cognition-Based Functional Approach

The functional approach, as one of the two widely recognized research paradigms since about the 1970s, differs from its counterpart, the formalist approach, in its background assumptions, in its methodology, in its views of what constitutes data, and what counts as explanation.

All functionalists share the primary assumption that language has cognitive and social functions which play a central role in determining the structures and systems of the grammar of a language. That is, this paradigm assumes that language is an open system whose internal organization is a complex response to the communicative and interactive functions which it serves, and to the full cognitive, social, and physiological properties of the human user. The formalist approach, in contrast, assumes that grammar is an arbitrary, autonomous, and self-contained system for humans to interpret and communicate about the world.

While functionalists aim at clarifying the relationship between form and function, and at determining the nature of the functions which influence grammatical structure, formalists treat forms as independent of
functions. Thus the functional approach seeks system-external, functional explanations, which contrasts with the formalist approach which searches for system-internal, formal explanations.

The American functional approach reflects the Prague School tradition and inherits the spirit of American anthropological linguistics. The former shapes the communication emphasis of the functional approach, and the latter links the functional approach to cognitive science, psychology, biology and other disciplines.

The current cognition-based functional grammar was initially proposed by Tai (1989). It synthesizes the cognitive approach developed by Lakoff (1987) and Langacker (1987), the semiotic approach developed by Haiman (1985a/b), and the discourse approach developed by Hopper and Thompson (1980, 1984). It is characterized by taking human cognition as its basis, and stressing that human conceptualization of the physical world is reflected in the grammatical structure of natural language. This approach recognizes both linguistic universals and linguistic relativity. For language universals, it offers explanations in terms of semantic explanations, discourse-pragmatic explanations, processing explanations, and perceptual and cognitive explanations. For language-specific phenomena, this approach turns to different socio-cultural environments which shape human conceptualization. On this view Chinese grammar presents a rich resource of this approach. In summary, advocates of this approach believes, as Tai, Biq & Thompson state:

...genuine explanations lie in both the structure of the real world, as conceptualized by the language user, and the
linearity of human speech. Linguistic structure is further shaped by humans by memory capacity, processing strategies, and interactional principles (1996).

In what follows, I will discuss principles that elucidate word order relations on the basis of a cognition-based functional approach. The discussion will make an effort to show how Chinese word order is shaped by human bio-cognition, which is recognized as universal, as well as Chinese conceptualization of the physical world, which is considered language specific. This will be achieved through combining Yau's experiments and analysis (Yau, 1978, 1981--1989), and several iconicity-motivated principles that account for Chinese word order which are systematically demonstrated in Haiman (1980, 1983, 1985) and proposed by Tai (1985, 1989, 1993). I will also discuss Jakobson's markedness principle, and some hypotheses on Grammaticalization (Heine, et al., 1991), which are related to this study.

2.1 Visualization and Word Order

As mentioned earlier, bio-cognitive factors exert perceptive constraints on our learning and understanding of language. Osgood in his lecture on "Naturalness in Cognizing and Sentencing" states:

... the basic cognitive structures which interpret sentences received and initiate sentences produced are established in prelinguistic experience, via the acquisition of adaptive behaviors to entities perceived in diverse action and stative relations (1979: 110).
This assumption has been proved by Yau's research on visual linguistics which consists of his field studies on the deaf of different ages from various countries and areas, and on children of different nationalities.

Yau's research (cf. Yau, 1977-1989) is based on his hypothesis about universal word order. That is, (i) the three types of word order SVO, SOV, and VSO in conversation described by Greenberg can be traced back to the same origin; (ii) word order in spoken language and the order of signs in sign language share the same origin, since both orders are constrained by bio-cognitive factors outside of linguistic system itself.

How are information pieces ordered from human perception system transferring to its linguistic system? Yau tried to discover it by investigating human visual perception. He used raw data from sign language for the deaf and from child language.

The results of his experiments have shown that the basic order of signs for description is N'NR (i.e., NN'R or N'NR), and the basic word order in spoken language is also N'NR. So the surface SVO, SOV and VSO word order in spoken language, and the orders of signs in sign language have the same primary order, i.e., N'NR, which is universal.

1 To achieve genuine results, Yau uses raw data of sign language free from any influence of word order in spoken or written forms, and that of child language before native language is acquired (cf. Yau, 1979, 1985a/b, 1986c, 1989a/b, 1994).

2 Yau uses N, N, R instead of S, O, V to avoid dispute between subject and object in certain languages. Thus NN'R represents SOV, NNR' represents SVO. 'R' is the short form for 'relating element', replacing the traditional term verb because 'relating element' better describes its function of associating any two Ns (N and N', or N/N' and N_loc). Cf. Yau, 1994: 33.

3 There are other experiments that claim the primary universal word order is SVO (cf. Osgood & Tanz, 1977). However, compared with other studies, Yau's methodology and results based on long term field study are more convincing.
N'NR reflects a visual perceptive constraint on ordering of language elements. In other words, the order of expression elements in human languages, either in sign language for the deaf, or in spoken language, follow the order of the visual perceptive process. That is, one sees two objects (N and N') first, then there is an action (R) connecting them. For example,

(1) mouse - dog - bite  
(meaning: 'the mouse bites the dog' or 'the dog bites the mouse')

(2) I - stone - hit  
(meaning: 'I hit the stone')

This feature of 'reversive action' seems in conformity with the natural procedure of the formation of the psychological concept with substances and actions (Yau 1994: 23-24).

After further observations of sign language for the deaf Yau distinguishes the order of signs in time and the order of signs in space, as illustrated in the following diagram:

(3)

Figure 1  Order of Signs in Time and Space
The order of signs in time is NN'R, which reflects the order of each sign appearing by time order. The order of signs in space is NRN', which reflects the position each sign occupies in space from a static point of view. To be more specific, for the order of signs in time, signs indicating N and N' are given by the deaf subject first, then he/she gives another sign indicating R to associate N and N'; thus the order of NN'R. For their order of signs in space, regardless of the sequence of their appearance, in space, sign N, N' and R each occupies a position, and the position of sign R is between the positions of sign N and N'. Thus the order of NRN'.

This observation is significant because it provides a plausible explanation to the two main word orders SVO and SOV in spoken language. As Yau has argued, SVO and SOV word order are the consequence of two ex-linguistic constraints imposed upon spoken language, i.e., a visual perceptive constraint and a linearity constraint. The choice is made only after the imposition of the linearity constraint. Once the choice of a word order is made in a language, the chosen word order would widely spread out and become the conventionalized word order for that language with little regard to diversity of verb categories.

If this observation is correct, we would ask, how does a language choose its preferred word order. For example, why does Chinese choose SVO (in most cases) and occasionally, SOV word orders? In the following sections I will discuss some cognition-function based principles that Chinese word order follows.

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4 VSO can be regarded as a derived word order. Cf. Yau, 1977a, also in Yau, 1982.
2.2 Iconicity

Among the three core areas of a cognition-based functional grammar of Chinese, i.e., space and time, categorization, and iconicity, listed in Biq, Tai and Thompson (1996), word order is closely associated with space and time, and iconicity. Since space and time may be regarded as iconic motivations (cf. Tai, 1993a), I discuss them under iconicity.

The notion of iconicity, offered as a challenge by Jakobson (1965) to the view that language is fundamentally arbitrary, that there is no resemblance between the signs of language and the thought they stand for, maintains that linguistic structures reflect our common perceptions about our world. What is significant and analogous to grammar is the diagrammatic iconicity defined by Haiman (1985) with the term originated from Peirce (1932) who proposes a taxonomy of signs: icons, indices, and symbols. This taxonomy is based on the degrees of their resemblance to objects. Diagram, being an attenuated icon, less completely resembles its referent than image but more so than symbol. Taking various systems of numerical notation and Chinese character formation strategies (liu-shu, the 'six categories') for example, the most iconic are a tally system, i.e., the number of lines corresponds to the number of objects enumerated, and xiangxing 'pictograph'; the least iconic are Arabic numbers and zhuanzhu 'synonymous' (Cf. Tai, 1993). Roman numeral system and huiyi 'association' are examples of diagrammatic iconicity. The central notion of diagrammatic iconicity as defined by Haiman is:

...the essence of a diagram is that the relationships among the
parts of the diagram do resemble the relationships among the parts of the concept which it represents. This (attenuated) resemblance justifies our calling a diagram a kind of icon: a diagrammatic icon (1985: 9).

There is thus in language syntax an order of words that corresponds to the order of events.

Three types of diagrammatic iconicity: isomorphism, motivation, and automorphism, are identified by Haiman (1985a). In addition, Haiman points out the opposite of iconicity: the erosion of iconicity, and presents different kinds of erosions, among which auxiliarization or serialization and lexical elaboration will be discussed in this study.

The pervasiveness of iconicity in Chinese has been shown in many works. Tai (1985) proposed the Principle of Temporal Sequence (PTS) and the Principle of Whole-before-Part in Space which account for word order of a great number of Chinese syntactic patterns. In his recent study, Tai (1993: 153-171) identifies five iconic motivations in Chinese grammar: (i) order motivation, in which PTS and PTSC are included, (ii) distance motivation, (iii) separateness motivation, (iv) juxtaposition motivation, and (v) reduplication motivation. In what follows, I will discuss order motivation, conceptual distance, and erosion of iconicity, which are most relevant to the subject of this study.

2.2.1 Time and Space: Order Motivation

We quoted Haiman in 2.2 saying, "...the essence of a diagram is that the relationships among the parts of the diagram do resemble the relationships among the parts of the concept which it represents." Among
the resemblance relationships in Chinese, the most important involving the
resemblance of human concepts and linguistic expressions are the order of
events in time and distance among objects in space, which Tai (1993: 159)
refers to as the order motivation, cited below:

(4) The order of linguistic expressions corresponds to their
order in the conceptual world.

There are two important order motivations proposed by Tai: The
Principle of Temporal Sequence (PTS, 1985) and The Principle of Whole-
before-Part in Space (1989). PTS states:

(5) The relative word order between two syntactic units is
determined by the temporal order of the states which
they represent in the conceptual world.

A great number of word order phenomena in Chinese can be
accounted for by this principle. For example, serial verb construction,
sentences connected by temporal connectives, some verb-adjunct phrases,
and so on. The following sentences reflect such temporal sequences as
causes prior to results or results following actions ((6)), a series of actions
((7) & (8)), etc., in our conceptualization of the real world.

(6) 張三淋了大兩，病倒了。
Zhang San drench PRT one CLF big rain ill fall PRT
'Zhang San was drenched by a heavy rain and fell ill.'

(7) 他進了門，書包一扔就躺在床上。
Ta jin he enter-PRT door book bag one throw just lie to bed-LOC
'Entering the room, he put his bag away and threw himself on the bed.'
(8) 你先坐下喝碗湯壓壓驚再慢慢說。
*Nixian zuoxia he wan tang yaya jing zai manman shuo.*
*You first sit down drink bowl soup press shock then slowly speak*
'You sit down first, drink the soup to calm yourself, then take time to tell the story.'

Word order in these sentences cannot be changed. The linguistic order reflects the natural sequence of events. If we change the word order of (7), for instance, to Ta *shubao yi reng, jin-le men jiu tang-dao chuang-shang* 'Putting aside his bag, he entered the room and threw himself on the bed,' or to *Ta jin-le men, jiu tang-dao chuang-shang shubao yi reng* 'Entering the room, he threw himself on the bed and put away his bag,' the sentences are still meaningful, but reflect different actual orders of actions.

The Principle of Whole-before-Part reflects a general linearization ordering tendency in Chinese, which represents the spatial conceptualization of container to contained. This ordering relationship is found in expressions of time, place, or address, existence, in modifying-modified structure, etc., in which bigger, more stable, long lasting, or old/known elements are usually ordered prior to smaller, less stable, temporary, or new/strange elements (Cf. Tai, 1985, 1989; Liu, 1994, 1995; Hu, 1995). For example,

(9) 中国贵州省贵阳市中华北路十号  (whole-part: address)
*Zhongguo Guizhou sheng Guiyang shi Zhonghua bei lu shi hao*
*China Guizhou province Guiyang city Zhonghua north road ten number*
'10 N. Zhonghua Rd., Guiyang, Guizhou, China'
Tai (1985) observed that temporal expressions in Chinese obey the Whole-before-Part principle and proposes the Principle of Temporal Scope (PTSC) which synthesizes the similarity in word order between temporal and spatial expressions.

PTSC states:

(12) If the conceptual state represented by a syntactic unit X falls within the temporal scope of the conceptual state represented by a syntactic unit Y, then the word order is YX.

PTSC accounts for examples such as

(13) — — H (whole-part: time)

yi jiù jiù wù nián shí èr yuè shí wù yī rì
one nine nine five year twelve month thirty-one day
'December thirty-first, nineteen ninety-five'

(14) — (whole-part: time-duration of action)

Ta wanshang kan yi -ge zhòngtóu xìnwén.
he evening watch one CLF hour news
'He watches one-hour news in the evening.'
Both PTS and Whole-before-Part are found in Chinese locative constructions which we will discuss in detail in Chapter IV.

2.2.2 Conceptual Distance and Linguistic Expressions

Another motivation of diagrammatic iconicity is conceptual distance. Haiman (1983: 782) states:

(15) The linguistic distance between expressions corresponds to the conceptual distance between them.

He observes four possibilities of conceptual closeness. These possibilities are (Haiman, 1983: 783, 1985: 107):

(16) Two concepts are conceptually close to the extent that they share semantic features, properties, or parts (e.g., two verbs are closer if they share a common tense, mood, subject, object, or topic);

(17) Two concepts are close to the extent that they affect each other (e.g., the conceptual closeness between a verb and its object varies with the transitivity of the verb);

(18) Two concepts are close to the extent that they are perceived as inseparable (e.g., there is closer conceptual link between a possessor and an inalienably possessed object than between a possessor and an alienably possessed object).

(19) Two concepts are perceived as a unit, whether factually inseparable or not.

Some evidence of distance motivation from Chinese syntax is presented by Tai (1993: 162-163), which include the presence and absence of particle *de* between the modifier and the modified, and between the possessor and the possessed. In those constructions the absence of *de*
expresses closer or intimate relationship while the presence of *de* signals alienable possession. For example, *lao pengyou* means 'friends of long standing', while *lao-de pengyou* means 'friends of old age'. When referring to family members, relatives, or friends, *de* is usually omitted. But it is often used when we mention our pets such as a dog, a cat, or our inanimate possessions.

Tai (1993) notices that the notion of intimacy is psychologically rather than physically based. Therefore the possessive marker between the body and the body parts cannot be omitted. For example, *wo de shou* 'my hand'; *ni de tou* 'your head' cannot be *wo shou, ni tou*. He points out that the significance here is that "our conceptual structure can be anchored in our psychological experience as well as in our physical experience, and that the former can take precedence over the latter in our conceptual structure."

### 2.3 The Erosion of Iconicity

In opposition to iconicity is the erosion or distortion of iconicity which in general, is motivated by economy. The greatest values of it is the simplicity and manipulability (Haiman, 1985), which are the essential characters of a diagram. As Haiman points out, in a diagram, we must map three dimensions onto a medium of only two, and in a language, map a conceptual space of indefinitely many dimensions on to the one dimensional medium of language. This process requires economy and in turn results in extensive distortions. The use of diacritics, the limitations of the medium in a diagram as well as in a language, impair iconicity.
Economy that is opposed to iconicity in languages contributes to the erosion of iconicity.

Haiman (1985: 147-151, 160-236) enumerates several cases of the erosion of iconicity. One case (147-151) is about "the iconic expression of 'complexity'" which refers to the relationship between morphological and semantic markedness.

It would be a clear iconic relationship if formal complexity corresponds to conceptual complexity. However, this cannot be maintained because of two tendencies in language. One is the tendency of giving reduced form to the familiar and predictable. The other is the tendency of unmarked form indicating "par excellence", i.e., most general, meaning.

The two tendencies find evidence in Chinese. As in other languages, reduced forms are quite common in conversational Chinese. For example, in (20), the verb is omitted:

(20) 你大碗，我小碗。
Ni da wan, wo xiao wan.  
you big bowl I small bowl

The sentence may mean 'You use the big bowl (to eat) and I use the small one', or 'You have the big bowl and I have the small one.' The omitted part is understood in either linguistic context or situational context.

Another evidence is the use of nominalizing de as a morpheme in the form X de. This form X de, according to Chao (1968: 295), "acquires a nominal status when Y is omitted from X de Y. But once de acquires the status of a nominalizer, it can be so used even though no particular
nominal expression can be specified as having been omitted or understood.

For example,

(21) 這是我的書。  
'Zhe shi wo de shu. 'This is my book.'  
\(\rightarrow\) 這是我的  
'Zhe shi wo de. 'This is mine.'

(22) 長的桌子  
'chang de zhuozi'  
'long table'  
\(\rightarrow\) 長的  
'chang de'  
'the long one'

(23) 要飯的人  
'yao fan de ren'  
'the begging person'  
\(\rightarrow\) 要飯的  
'yao fan de'  
'the begger'

The tendency for the unmarked form to assume "par excellence" meaning can be seen from ambiguous expressions (Cf. Chao, 1968: 74-75) such as

(24)a 雞吃了。  
'Ji chi le.'  
'chicken eat PRT'  
'The chicken starts eating.'  
or  
'The chicken has been eaten.'

(25)a 會不開了。  
'Hui bu kai le.'  
'meeting not open PRT'  
'The meeting has been canceled.'  
or  
'I will not go to the meeting.'

It needs to be noted that linguistic analyses make distinction between cases of ambiguity and other situations referred to as vagueness, generality (Chao 19595), or unspecified (Zwicky & Sadock 199: 2). According to Chao, ambiguity is "the property of a symbol in being understandable in more

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5 Chao refers the distinction to a discussion of these three notions by Max Black in his Language and Philosophy, Ithaca, 1949, Chapter II Vagueness.
than one way," vagueness is a symbol "in so far as its borderland cases of applicability loom large in comparison with its clear cases;" and generality is a symbol being "applicable to any one of a number of things whose differences are not denied or necessarily overlooked, but regarded as irrelevant in the context in which the symbol is used." (1959:1). Ambiguous sentences "often exhibit two different structures, each of which is visible in unambiguous examples" (Zwicky & Sadock 19: 10) while unspecified sentences do not do so. Thus, in the following examples (26) and (27):

(26) My sister is the Ruritanian secretary of state.
(27) They saw her duck.

(26) is unspecified with respect to whether my sister is older or younger than I am, whether she acceded to her post recently or some time ago, whether the post is hers by birth or by merit, etc. On the other hand, (27) is ambiguous, as the following pair (28) and (29) show that it has two different syntactic structures: in one understanding 'her duck' is an NP, in the other an NP ('her') followed by a VP ('duck').

(28) They saw her duck into the cellar.
(29) They saw her huge duck.

To distinguish ambiguity from unspecified we may examine inconstancy of understanding under substitution which indicates ambiguity. Adding materials to sentences to force one understanding in ways that are not explicable on semantic grounds alone can also make the distinction (Cf. Zwicky & Sadock 19: 8-9, 12-13).
In (24a) and (25a), directions of the action are not clear because both sentences have SV and OV structural possibilities. In (24a), 'chicken' can be understood as either agent or patient, and in (25a) 'meeting' can be understood as either theme or patient. By applying the above mentioned methods I adduce the unambiguous sentences (24b/c) and (25b/c).

(24b) 雞吃食了。
Ji chi shi le.
chicken eat food PRT
'The chicken has started eating food.'

(24c) 雞喂了。
Ji wei le.
chicken feed PRT
'The chicken has been fed.'

(25b) 會我不開了。
Hui wo bu kai le.
meeting I not attend PRT
'I will not attend the meeting.'

(25c) 會停開了。
Hui ting kai le.
meeting stop open PRT
'The meeting has been canceled.'

Sentence (24b/c) and (25b/c) suggest that ji and hui have two different syntactic functions, subject and object. They support the claim that (24a) and (25a) are ambiguous sentences.

However, under linguistic or situational contexts, correct understanding of reduced or ambiguous forms can usually be achieved. In any case, the tendencies of giving reduced form to the familiar and predictable, and of unmarked form indicating "par excellence" meaning, result in erosion of iconicity in transparent relationship between form and
meaning. This relationship between meaning and form will also be discussed in the next section, Markedness.

2.4 Markedness

Markedness has been a central concept in phonology and semantics since it was first defined and utilized in a systematic way by Trubetzkoy and Jakobson in 1930s and has been an essential part of structuralist theories of language. Markedness indicates the asymmetrical and hierarchical relationship between the two poles of any opposition. Such polar oppositions are evident at the levels of grammatical structure: active and passive, positive and negative, present and past, singular and plural, masculine and feminine.

The notion of markedness posits that the terms of polar oppositions show an evaluative nonequivalence that is imposed on all oppositions. For the more general, more frequent, more familiar, and the expected, the pole is the unmarked term of the opposition, while for the more focused, more uncommon, more unfamiliar, and the expected, the pole is the marked term of the opposition. (Cf. Waugh, 1982; Battistella, 1990; Andrews, 1990)

Take lexical oppositions as an example. If we wish to refer to a general quality, it is often the case that one member of a word pair will be used to signal the general property as well as to signal one particular value of it, which is the unmarked pole. In such a case the unmarked form is used to stand for the category in general without giving more specific information about that category. For example, 'chicken' can mean either
'cock' or 'hen', but it remains the general term for that kind of domestic fowl.

We can add some evidence from Chinese. For instance, there is an opposition between *nianling* 'age' and *nianji* 'age'. The former is used in any expression inquiring about age, as an objective or neutral term. Thus it is unmarked. It is also used in spoken discourse when we wish to ask about age in an objective and unspecified way. The latter term, *nianji*, specifically refers to old age, which conveys the notion of respecting the aged. Thus it is marked. Both cases are shown in (30a) and (30b):

(30)a  他多大年齢？
       Ta duo da nianling?
       'How old is he? / What is his age?'

(30)b  他多大年紀？
       Ta duo da nianji?
       'How OLD is he?'

Further examination of the logical relationship between marked and unmarked terms of any grammatical opposition reveals a relation involving the necessary presence of a particular unit of information $X$, i.e., $+X$, marked; versus absence and/or non-pertinence $X$, i.e., $-X$ and $\text{OX}$, unmarked.

$\text{OX}$, or the "zero-interpretation" is that interpretation that is the most general and broad. It is the non-pertinent one of the unmarked and can mean either $+X$ or $\text{OX}$.

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6 There are several other forms regarding 'old age' in Chinese which have been discussed in sociolinguistics.
-X, or the "minus-interpretation" is that interpretation that signals the absence of the unit of information associated with +X, the marked. The contrast between -X and +X usually presents itself in those contexts where there is explicitness versus implicitness (cf. Waugh, 1982: 303-305).

In our discussion in 2.3, the "par excellence" meaning equals the "zero-interpretation". Example (24a) and (25a) are unmarked and in their "zero-interpretation" they include meanings in both (a) and (b). (24b/c) and (25b/c) are marked with regard to (24a) and (25a) because they have specific meanings. At the same time, they are iconic as they are in conformity with the principle of "one form, one meaning" (Cf. Haiman, 1985:21).

Markedness is found at different levels. For example, the ba construction which puts focus on the object may be regarded as the marked form for regular SVO order. We have discussed some Chinese word order principles such as PTS, whole-before-part, PTSC, etc. Following PTS, usually the reason or the action is said before the result, as in example (31a),

(31)a 他昨天病了，没来。
Ta zuotian bing-le, mei lai.
'He was ill yesterday and did not come.'

But in (31b), the word order is reversed, i.e., marked, to emphasize the reason.

(31)b 他昨天没来是因为病了。
Ta zuotian mei lai shi yinwei bing-le.
'He did not come yesterday because he was ill.'
Interestingly, the corresponding structure is also marked by 'yinwei'.

Markedness values are context-sensitive. The markedness relationship between the two choices is the same, but the opposition itself may be changing, since the mark defines the opposition. For example, some expressions such as 請勿吸煙 Qing wu xi yan 'Please do not smoke', 老少皆宜 Lao shao jie yi 'suitable for both old and young' are unmarked in written Chinese but are marked if used in spoken. One the other hand, 請不要抽煙 Qing bu yao chou yan 'Please do not smoke', 老的都可以 Lao-de xiao-de dou keyi 'OK for the old and the young' are unmarked in spoken Chinese and may or may not be marked in written Chinese depending on the writing style. In example (26a) above, as we have mentioned, the two interpretations are contextually determined. When people talk about feeding a chicken, 'The chicken has started eating food' is the marked interpretation. 'The chicken has been eaten' is the non-pertinent interpretation. On the other hand, if eating dinner is the situation, 'The chicken has been eaten' becomes the marked interpretation and The chicken has started eating food' is irrelevant.

The theory of markedness has been developing in various directions and areas. I have but highlighted a few points for the purpose of this study and will leave further discussion for future research.

2.5 Verbal Semantics

The study of verb semantics, especially involving notions such as "process", "event", "state", can be traced back historically to the early
stages of the development of philosophy. Contemporary study on this subject has resulted in the insightful Vendler-Dowty verb classification. There have been a good number of other works on verbal semantics as well. The ones that are most significant to Chinese, especially to this study, include classification of situation types by Lyons (1977), classification of Chinese verb types in accordance with situation types by Szeto (1987) and He (1992), and Lü's distinction between existential and remaining states (1957).

In a broad sense, linguistic researches have made a distinction between two types of aspectual situations: static situation and dynamic situation. Lyons (1977:482, 707) defines the static as "one that is conceived of as existing, rather than happening, and as being homogeneous, continuous and unchanging throughout its duration", and the dynamic one as "something that happens (or occurs, or takes place): it may be momentary or enduring; it is not necessarily either homogeneous or continuous, but may have any of several temporal contours, and most important of all, it may or may not be under the control of an agent." Under dynamic situation, Lyons makes further distinctions among event, process, and action. According to him, "event" is a momentary dynamic situation; "process" is a dynamic situation extending in time; and "action" is a dynamic situation under the control of an agent. Some other linguists further divided dynamic situation into activity, accomplishment, and achievement (Cf. Vendler, 1967, Dowty, 1982) types. Generally speaking, activity and accomplishment are durative and repetitive. They differ in that activity is homogeneous while accomplishment has a natural ending.
Accomplishment can be seen as a combination of an activity and an achievement. Achievement is instantaneous, non-repetitive.

Tai (1984) is the first one to apply Vendler-Dowty's framework to the classification of Chinese verb types and make insightful analysis on important characteristics of Chinese resultative verb compounds. He points out that

the accomplishment verb is expressed in Chinese in the form of a resultative verb compound. While an accomplishment verb in English has both action and result aspects, a resultative verb compound in Chinese has only the result aspect. (1984:292)

Subsequent research (cf. Teng 1986; Szeto 1987; He 1992) on Chinese verbal semantics and classifications has been influenced by Tai's study. He (1992) proposes that Chinese achievement and resultative verb compounds represent a change-of-state situation (Cf. He, 1992:182).

Szeto pretty much follows Lyons in general except instead of 'action' under dynamic situation, he distinguishes "development" from "punctual" under "event".

Both Szeto and He recognize the "change-of-state" type verbs in Chinese. He, under "states" further distinguishes "existential states". These two classifications echo Lü's commentary (1957) on "action" and "state":

After an action finishes, what remains is a state. Therefore verbs that entail the meaning of "completion" possess the property of state. ...If an action continues, it becomes a state (57-58).
The above classifications make distinctions which are true to the natures of Chinese aspectual situation and Chinese verb types. We adopt them with some modifications in this study (See 3.2.1 & 3.2.2).

2.6 Grammaticalization

The notion of grammaticalization was first recognized by Chinese scholars in the 14th century (Cf. Heine, et al, 1991). Based on an earlier 10th century distinction between "full" and "empty" linguistic symbols, Zhou Boqi (Yuan Dynasty, A.D. 1271-1368) argued that all empty symbols were formerly full symbols. That is, there is a process of their changing from full lexical words to "empty" structural marks. Such a process is called, by many linguists, grammaticalization, or grammatization.

Kurylowicz (in Heine, et al, 1991: 3) defines grammaticalization as consisting, "...in the increase of the range of a morpheme from a lexical to a grammatical or from a less grammatical to a more grammatical status...."

Grammaticalization is generally conceived of as a diachronic as well as synchronic process. More recent studies employ grammaticalization as an explanatory parameter for understanding diachronic and synchronic grammar. An intrinsic property of the process is that grammaticalization is unidirectional, that is, that it leads from a "less grammatical" to a "more grammatical" unit, but not vice versa.
Bernd Heine, et al. claim that grammaticalization is motivated by extralinguistic factors, above all, by cognition. They state:

...grammaticalization [is] the result of a process involving a transfer from 'concrete' to 'abstract' domains of conceptualization on the one hand and conversational implicatures and context-induced reinterpretation on the other. This process leads to the emergence of grammaticalized structures as the conventionalized, frozen, or fossilized product of those cognitive activities. (1991: 248)

One of the cognitive processes accompanying grammaticalization is syntactic reanalysis which Langacker (1977: 59) defines as "Change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface manifestation." He refers to this process of turning a structure (i) into a new structure (ii) as constituent-internal reanalysis. This process is illustrated as follows:

(i)  (A, B) C
(ii)  A (B, C)

Heine, et al. illustrate this process for verbs in the following reanalysis patterns:

(a)  A verb is reanalyzed as a kind of preposition, in this case as a purpose preposition.
(b)  A verb phrase is reanalyzed as an adverbial phrase.
(c)  The erstwhile bipropositional structure of a sentence is reanalyzed as a unipropositional structure. (1991: 210)

The process of reanalysis iconically reflects the process of human cognition: once a transfer from one concept to another takes place, the
status of the linguistic word expressing that concept is likely to be affected. For example, when an entity of the object domain serves to conceptualize an entity of space or time, a linguistic development from a nominal to an adverbial in this entity is likely to be triggered.

Otatatsu (1987: 230) explains the emergence of Chinese bei construction as a process of reanalysis. He argues that in the following examples,

(32) 亮子被蘇峻害。
Liang-zi bei Su Jun hai.
'Liang-zi suffer Su Jun kill
'Liang-zi was killed by Su Jun.'

(Shi Shuo Xin Yu, Fang Zheng <<世說新語·方正>>)

(33) 民被其毒，王不覺知。
Min bei qi du, wang bu juezhi.
'People suffer it poison wang not feel know
'People were killed by poison, the king was not aware.'

(Bo Jing Chao 轉經抄)

Hai 'kill' and du 'poison' are nouns, but can be regarded as verbs as well since their noun qualities are not strong. Su Jun and qi 'it', being a proper name and a pronoun, have stronger noun qualities. If bei is understood as a verb, meaning 'suffer', and if hai and du are understood as nouns with Su Jun and qi as their modifiers respectively, the sentences are in the active voice. If bei is understood as an auxiliary, then the former modified hai and du become verbs and the modifiers Su Jun and qi become agents; whereupon the sentences are interpreted as being in the passive voice. The surface structure of the sentences is the same, but because they can be perceived in a different way, new meanings are bestowed on them. Bei
changes from a verb to an auxiliary. This is how the \textit{bei} construction emerged.

Emergence of the \textit{ba} construction can be accounted for in the same way. For example, \textit{ba juan kan} in \textit{Danyuan chun guan ba juan kan} 'wish Spring officials' read the examine paper' (from a poem by a Tang poet Du Xunhe) can be regarded as a serial verb construction changing to a disposal construction by reanalysis (Liu, Cao & Wu, 1995:165):

\begin{figure}
\centering
\includegraphics[width=0.8\textwidth]{construction_diagram.png}
\caption{Diagram of serial and disposal constructions.}
\end{figure}

\begin{itemize}
\item \textbf{A} Serial verb construction
\item \textbf{B} Disposal construction
\end{itemize}

The reanalysis in the \textit{ba} construction results from grammaticalization of \textit{ba} which changes its status from verb to auxiliary: grammaticalization of a lexeme cause the change in sentence structure.

Two other observations regarding grammaticalization motivated by cognition made by Heine, et al. are relevant to our study. One is overlapping. According to Heine:

\footnote{\textit{Chunguan} 春官, a title of administration division in ancient China. Another name for the Ministry of Rites that was in charge of the Civil Examination. The names of the four seasons were used to name administrative divisions in ancient China.}
overlapping, whereby an earlier stage coexists with a subsequent
stage, forms an intrinsic property of grammaticalization chains.
Overlapping has various implications for grammar. One major
effect is that it creates ambiguity, whereby either one form shows
several meanings or else one meaning is associated with two or
more different forms. (1991: 260)

Another observation of Heine, et al.'s regarding grammaticalization
and cognition has to do with asymmetry between meaning and form:

"Since conceptual shift precedes morphosyntactic and
phonological shift, the result is asymmetry between meaning and
form. All languages that we are familiar with show examples of
morphemes or constructions that have acquired a new meaning
or function even though they still retain the old morphosyntax;...

"...language constantly contradicts this principle [one meaning,
one form], and it does so for good reasons: polysemy, homophony,
and ambiguity, as well as other forms of asymmetry between form
and meaning, are a natural outcome of grammaticalization, and
hence, form an integral and predictable part of language
structure." (259-261)

These points are extremely interesting because they are closely
linked to the theory of iconicity we have discussed. Grammaticalization, to
a great extent, can be regarded as the erosion of iconicity, overlapping and
asymmetry as described above are manifestations of such erosion..

In addition, the theory of grammaticalization makes the same basic
assumptions as the hypothesis of localism which is directly germane to the
subject of this study: Chinese locatives.

The hypothesis of localism claims that spatial expressions are more
basic, grammatically and semantically, than various kinds of non-spatial
expressions. They serve as structural templates for other expressions. For
example, temporal expressions are patently derived from locative expressions. The interdependence of time and distance reflects a direct correlation between temporal and spatial remoteness from the deictic zero-point of the here-and-now. From a localist point of view, in the use of such grammatical cases as the dative, the natural association of the source and goal is parallel to a journey by the entity from the starting to ending points. The reason why spatial expressions are more basic is because, according to psychologists, spatial organization is of central importance in human cognition (Cf. Miller & Johnson-Laird, 1976: 375ff).

Apparently, the hypothesis of localism just provides another case of grammaticalization, and perhaps, another case of the process from iconicity to the erosion of iconicity.

2.7 Information Structure

The essence of human communication is the exchange of information. The exchange of information is achieved through a well designed information structure (Cf. Lambrecht, 1994). Lambrecht defines the information structure of a sentence as: "The information structure of a sentence is the formal expression of the pragmatic structuring of a proposition in a discourse." (1994: 5)

This information structure is both functional and formative. The two phases map or pair with each other.
In this study, the functional phase\(^8\) is regarded as having a cognitive base. That is how concepts are structured. As far as Chinese word order is concerned, iconic motivations, and the erosion of iconicity, provide explanations for a good number of linguistic constructions in Chinese.

The formative phase of the information structure contains variations of possible forms which include conventional expressions and idiosyncratic expressions. Or, to put it differently, these expressions include unmarked and marked terms.

Iconically motivated constructions tend to be conventional expressions, or unmarked terms. The erosion of iconicity, tends to pair with idiosyncratic expressions, or marked terms.

The process of grammaticalization reflects synchronic and diachronic changes in language, in which idiosyncratic expressions may become conventionalized, or conventional expressions become idiosyncraticalized, in the background of socio-cultural development, language contact and other factors throughout time.

At the present stage, my study is based on the following view about languages.

Language is the most important means of human communication. Primary linguistic forms and expressions are bio-cognition based, including, obviously, language's most basic meaning structuring strategy:

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\(^8\) For Lambrecht, its functional phase includes on the one hand, a speaker's assumption and identification about an addressee's knowledge and the mental state at the moment of utterance; and on the other hand, a speaker's assertion, and activation based on his assumption about the addressee and assessment of the relative predictability versus unpredictability of the relations between propositions and their elements in given discourse situations (Lambrecht, 1994).
word order. Yau's study and experiments have provided strong evidence for his proposal of the bio-cognition based primitive, and universal word order, NN'R.

Other word order types derive from NN'R. Selections of a word order type by different languages depend on specific social and cultural environments of languages which shape human conceptualization. Thus there are SVO, SOV, and VSO types of word order.

A language may have one type of order as its major or basic word order, with other types of order co-existing; or it may have more than one type without obvious distinction between major and minor word orders. In fact, no language so far has been known to have only one type of word order. This is understandable: language interaction, language development, and to certain extent, discourse contexts, inevitably bring about the coexistence of multiple word orders.
3.0 Introduction

This chapter gives a synchronic description of zai, dao and gei constructions. By zai, dao and gei constructions, I refer to the three locatives and their following NP. This NP can be a single noun, for example, zai/dao/gei-xuexiao 'at/to/give school'; or a complex phrase, for example, zai/dao/gei-wo cengjing gongzuo guo de xuexiao 'at/to/give the school that I once worked for'. Very often this NP have what Chao (1968: 397, 523, 623-626) calls a localizer, i.e., shang 'up', xia 'down', li 'inside', wai 'outside', qian 'front, before', hou 'behind, after', etc., attached to the noun. In the rest of my discussion, zai/dao/gei and the following NP will be referred to as zai/dao/gei phrases.

My synchronic investigations include distribution patterns of the three constructions, semantic functions of zai/dao/gei phrases in different

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1 Chao (1968) refers to these constructions as K-O (coverb) Phrases; Li & Thompson (1981) refers to them as Locative Phrases; Norman (1988) refers them as Prepositional Phrases. Cf. Chapter 1.
sentence positions, and associated aspectual features and related verb types, and argument structures.

3.1 Distribution Patterns of Zai, Dao, and Gei Phrase

As has been pointed out in the first chapter, the three locatives zai, dao and gei all can occur in both preverbal and postverbal position. However, they do not occur at all positions without any restriction. Their occurrences exhibit certain regularities. In this section I will present distribution patterns of zai, dao and gei, which are a summary of observations made by Chinese linguists such as Tai (1975), Zhu (1981), Fan (1982), and by myself.

3.1.1. Distribution Patterns of Zai Phrase

In Modern Chinese, zai phrase, so far as the surface structure is concerned, has three possible syntactic positions and exhibits five distribution patterns. Although some Chinese linguists (e.g. Wang, 1958; Lü, 1980; Zhu, 1981, etc.) noticed the possible positions and their differences, Tai (1975) first systematically presents zai's distribution pattern in preverbal and postverbal position. Fan (1982), in his summary, adds the distribution pattern in sentence initial position. Therefore the three positions are: sentence initial position, preverbal position, and postverbal position. The sentence initial position refers to the position before the subject; the preverbal position refers to the position after the subject before the main verb; and postverbal position refers to the position after the main verb. Since sentence initial position zai is also in preverbal position, it may
be regarded as a sub-type of preverbal position in that sense. However, it is treated as a separate type because of differences in semantic function as well as syntactic restrictions.

In the following five distribution patterns, the first three display the required occurrence of *zai* phrase in the three possible positions. The other two patterns illustrate the occurrences of *zai* phrase in more than one positions.

**Pattern 1:** Sentence initial position only, i.e., *zai* phrase occurs only at the beginning, or before the subject, of a sentence. For example,

(1)a. 在首都王府井大街，商店披著节日的盛装。
   *zai shoudou Wangfu-Jing da jie, shangdian pi-zhe jieri-de shengzhuang*
   at capital Wangfu-Jing street store decorate-PRT festival-PRT splendid dress
   'In the capital, stores at Wangfu-Jing Street are splendidly decorated for the festival occasion.'

*b. 商店在首都王府井大街披著节日的盛装*
   shangdian zai shoudou Wangfu-Jing da jie pi-zhe jiere-de shengzhuang

*c. 商店披著节日的盛装在首都王府井大街*
   shangdian pi-zhe jieri-de shengzhuang zai shoudou Wangfu-Jing da jie

(2)a. 在我的書架上，新書都包了封皮。
   *Zai wo-de shujia-shang, xin-shu dou bao-le fengpi.*
   at my bookshelf-LOC new book all wrap-PRT cover
   'On my bookshelf, all the new books are wrapped with covers.'

*b. 新書在我的書架上都包了封皮*
   xin-shu zai wo-de shujia-shang dou bao-le fengpi

*c. 新書都包了封皮在我的書架上*
   xin-shu dou bao-le fengpi zai wo-de shujia-shang
Pattern 2: Preverbal position only, i.e., zai phrase occurs only before the main verb and after the subject of a sentence. Exceptions do exist, but only under rare and particular situations (see note 2). Below are some examples of this pattern:

(3)a. 他在教室里看书。

Ta zai jiaoshi -li kan shu.
‘He is reading in the classroom.’

*b. 他看书在教室里
ta kan shu zai jiaoshi-li

*c. 在教室里他看书
zai jiaoshi-li ta kan shu

(4)a. 小孩子在外面玩。

Xiao haizi zai wai-mian wan.
‘The child is playing outside.’

*b. 小孩子玩在外面
xiao haizi wan zai wai-mian

*c. 在外面小孩子玩
zai wai-mian xiao haizi wan

Pattern 3: Postverbal position only, i.e., zai phrase occurs only after the main verb. For example,

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2 Sentence (3b/c) and (4b/c) and the like are considered acceptable only in contrastive or parallel situations. For example,

3b'  Ta kan shu zai jiaoshi-li, xie wenzhang zai jia-li.
‘He reads in the classroom while writes at home.’

3c'  Zai jiaoshi-li ta kan shu, zai jia-li ta xie wenzhang.
‘He reads in the classroom while writes at home.’

4b'  Xiao haizi wan zai wai-mian, shui zai li-mian.
‘Children play outside, sleep inside.’

4c'  Zai li-mian daren da majiang.
‘Outside children were having fun, inside adults were playing majiang.’
(5)a. 桶掉在井里。
   *Tong diao zai jing-li.
   bucket drop at well-LOC
   'The bucket dropped into the well.'

   *b. 桶在井里掉
   tong zai jing-li diao

   *c. 在井里桶掉
   zai jing-li tong diao

(6)a 他跌在地上。
   *Ta die zai di-shang.
   he fall at ground-LOC
   'He fell on the ground.'

   *b. 他在地上跌
   ta zai di-shang die

   *c. 在地上他跌
   zai di-shang ta die

**Pattern 4:** This pattern includes two types of situations. Type A has *zai* phrase occurring in either preverbal or postverbal; type B has *zai* phrase occurring in either sentence initial or pre-verbal position. In either type, changes in the position of *zai* phrase yield differences in meaning.

A.  (7)a. 水流在渠里。
   *Shui liu zai qu -li.
   water flow at canal-LOC
   'Water flows into the canal.'

   b. 水在渠里流。
   *Shui zai qu -li liu.
   water at canal-LOC flow
   'Water is flowing in the canal.'

(8)a. 小孩子跳在床上。
   *Xiao haizi tiao zai chuang shang.
   little child jump at bed -LOC
   'The little child jumped onto the bed.'
b. 小孩子在床上跳。
_Xiao hai zi zai chuang-shang tiao._
little child at bed-LOC jump
'The little child was jumping on the bed.'

The difference between preverbal and postverbal _zai_ phrase is that the former indicates the location where an action takes place, thus the canal is where water is flowing and the bed is where the child was jumping; while the latter indicates the location where the participant of an action reaches through the action. So by flowing water reaches the canal, and the child ended up on the bed after a jump.

B. (9)a. 在礦上，誰都是這麼說的。
_Zai kuang-shang, shei dou shi zhemo shuo-de._
at mine-LOC anyone all be such say-PRT
'In the mine, everyone says so.'

b. 誰在礦上都是這麼說的。
_Shei zai kuang-shang dou shi zhemo shuo-de._
anyone at mine-LOC all be such say-PRT
'Anyone says so when he is at the mine.'

(10)a. 在我們店里，人人買了電視機。
_Zai women dian-li, renren mai-le dianshi ji._
at our store-LOC everyone buy-PRT TV set
'In our store, everyone bought a TV.'

b. 人人在我們店里買了電視機。
_Renren zai women dian-li mai-le dianshi ji._
everyone at our store-LOC buy-PRT TV set
'Everyone bought a TV from our store.'

_Zai_ phrase in sentence initial position provides a background for the whole sentence, and the place introduced by sentence initial _zai_ may not necessarily be physically associated with the location where the action takes place, which the place indicated by preverbal _zai_ phrase is.
Pattern 5  Occurrence of zai phrase is possible in either preverbal or postverbal position, in sentence initial or preverbal or postverbal position. Changes in position may have discourse effects but yield little difference in meaning (Cf. p. 12, Note 7).

(11)a. 他家里住。
   Ta zai jia-li zhu.
   'He lives at home.'

b. 他住家里。
   Ta zhu zai jia-li.
   'He lives at home.'

(12)a. 在铁丝上小王晾了几件衣服。
   Zai tiesi -shang Xiao Wang liang -le ji jian yifu.
   Xiao Wang hang-PRT few CLF clothes

b. 小王在铁丝上晾了几件衣服。
   Xiao Wang zai tiesi -shang liang-le ji jian yifu.
   Xiao Wang at iron wire-LOC hang PRT few CLF clothes

   c. 小王晾了几件衣服在铁丝上。
   Xiao Wang liang-le ji jian yifu zai tiesi-shang.
   Xiao Wang at iron wire-LOC hang PRT few CLF clothes at iron wire-LOC
   'Xiao Wang has hung some clothes on the iron wire.'

(13)a. 在电话里，老王告诉了我。
   Zai dianhua-li, Lao Wang gaosu le wo.
   at phone LOC old Wang tell PRT me

b. 老王在电话里告诉了我。
   Lao Wang zai dianhua-li gaosu le wo.
   old Wang at phone LOC tell PRT me
   'Lao Wang told me on the phone.'

(14)a. 在院子里我种了几棵牡丹。
   Zai yuanzi-li wo zhong-le ji ke mudan.
   at garden-LOC I plant-PRT few CLF peony

b. 我在院子里种了几棵牡丹。
   Wo zai yuanzi-li zhong-le ji ke mudan.
   I at garden-LOC plant PRT few CLF peony
3.1.2. Distribution Patterns of Dao Phrase

In Modern Chinese, dao shares many distribution features with zai. It also has three possible sentence positions: sentence initial position, preverbal position, and postverbal position. There are also five distribution patterns with dao in the three possible sentence positions.

To the best of my knowledge, up to now there has not been a comprehensive description of the distribution patterns of dao phrase. Li & Thompson (1981: 410) and Tai (1975: 168; 1989: 207) give examples to show contrast between preverbal and postverbal dao phrases. Studies on dao (e.g., Li, 1958; Chen, 1981; Huang, 1984) have been paying more attention on postverbal dao. My summary here on the distribution patterns of dao is a synthesis of other studies, reflecting distribution patterns similar to zai phrase.

The five distribution patterns of dao are as follows.

**Pattern 1:** Sentence initial position only, i.e., dao phrase occurs only at the beginning of a sentence, or before the subject. For example,

(15)a 到北方，天氣非常冷。
Dao beifang, tianqi feichang leng.
'Going to the north, the weather is very cold'

(15)b 天氣到北方非常冷
tianqi dao beifang feichang leng
57

*天氣非常冷到北方
tianqi feichang leng dao beifang

(16)a 到那里，學校也有很多。
Dao nali, xuexiao ye hen duo.
'Going there, there are also many schools.'

*b 學校到那里也有很多
xuexiao dao nali ye hen duo

*c 學校也有很多到那里
xuexiao ye hen duo dao nali

(17)a 到了石家莊，北京就兩小時了。
Dao -le Shi-Jia-Zhuang, Beijing jiu liang xiaoshi-le.
'Arriving at Shi-Jia-Zhuang, there are only two hours from Beijing.'

*b 北京到了石家莊就兩小時了
Beijing jiu dao-le Shi-Jia-Zhuang jiu liang xiaoshi-le.

*c 北京就兩小時了到了石家莊
Beijing jiu liang xiaoshi-le dao-le Shi-Jia-Zhuang

(18)a 到城外，這座樓最高。
Dao cheng wai, zhe zuo lou zui gao.
'(going) Outside the city this building is the tallest.'

*b 這座樓到城外最高
zhe zuo lou dao cheng wai zui gao

*c 這座樓最高到城外
zhe zuo lou zui gao dao cheng wai

**Pattern 2**  Preverbal position only, i.e., *dao* phrase occurs only before the main verb and after the subject. For example,

(19)a 他到教室看書去了。
Ta dao jiaoshi han shu qu-le.
'He went to the classroom to read.'
到教室他看書去了。
dao jiaoshi ta kan shu qu-le

他看書去了到教室。
ta kan shu qu-le dao jiaoshi

(20)a 小孩子到外面玩。
Xiao haizi dao waimian wan.
little child to outside play
'Children go out and play.'

(21)a 小王忙到廚房里煮面條。
Xiao Wang mang dao chufang-li zhu miantiao.
Xiao Wang busy to kitchen-LOC cook noodle
'Xiao Wang hurried to the kitchen to cook noodles.'

(22)a 旅客紛紛到船上欣賞風景。
Lüke fenfen dao chuan-shang xinshang fengjing.
traveler all arrive boat-LOC enjoy scene
'Travelers all went to the boat to enjoy the scene.'

(23)a 小李到意大利學音樂。
Xiao Li dao Yidali xue yinyue.
Xiao Li to Italy study music
'Xiao Li went to Italy to study music.'
(24)a 老李常常到台上唱歌。
Lao Li changchang dao tai-shang changge.
Lao Li often arrive stage-LOC sing song
'Lao Li often sings on the stage.'

*b 到台上老李常常唱歌
dao tai-shang Lao Li changchang changge.

c 老李常常唱歌到台上
Lao Li changchang changge dao tai-shang

Pattern 3: Postverbal position only, i.e., dao phrase occurs only after the
main verb. For example,

(25)a 桶掉到井里了。
Tong diao-dao jing-li le.
bucket drop reach well-LOC PRT
'The bucket dropped into the well.'

*b 到井里桶掉了。
dao jing-li tong diao le

c 桶到井里掉了
tong dao jing-li diao le.

(26) 他跌到地上。
Ta die-dao di-shang.
he fall reach ground-LOC
'He fell on the ground.'

*b 到地上他跌
dao di-shang ta die

c 他到地上跌
ta dao di-shang die

(27)a 他回到中國兩年了。
Ta hui dao Zhongguo liang nian-le.
he return arrive China two year PRT
'It has been two years since he returned to China.'

*b 到中國他回兩年了
dao Zhongguo ta hui liang nian-le

c 他到中國回兩年了
ta Zhongguo hui liang nian-le
(28)a 敵人打到了我的家鄉。
Diren da dao -le wo-de jiaxiang.
enemy attack arrive PRT my hometown
'The enemy attacked my hometown.'

*b 到了我的家鄉敵人打
dao-le wo-de jiaxiang diren da

*c 敵人到了我的家鄉打
diren dao-le wo-de jiaxiang da

(29)a 他把箭射到靶子上。
Ta ba jian she-dao bazi-shang.
he PRT arrow shoot reach target-LOC
'He shot arrows into the target.'

*b 到靶子上他射箭
dao bazi-shang ta she jian

*c 他到靶子上射箭
ta dao bazi-shang she jian

(30)a 他把錄音帶卡到機器里了。
Ta ba luyindai ka-dao jiqi -li le.
he PRT cassette tape jam reach machine-LOC PRT
'He got the cassette tape jammed in the machine.'

*b 到機器里了他把錄音帶卡
dao jiqi-li le ta ba luyindai ka

*c 他到機器里了把錄音帶卡
ta dao jiqi-li le ba luyindai ka

(31)a 他把手插到口袋里。
Ta ba shou cha -dao koudai-li.
he PRT hand insert reach pocket-LOC
'He put his hand in his pocket.'

*b 到口袋里他把手插
daokoudai-li ta ba shou cha

*c 他到口袋里把手插
ta dao koudai-li ba shou cha

(32)a 你把這個公式記到筆記本里。
Ni ba zhe ge gongshi ji -dao bijiben-li.
you PRT this CLF formula write reach notebook-LOC
'You write down this formula in your notebook.'
Pattern 4: This pattern includes two types. In Type A dao phrase may occur in either preverbal or postverbal positions; in Type B it may occur in either sentence initial or pre-verbal positions. In both types changes of the position of dao phrase yield difference in meaning.

A. (34)a 小李到紐約坐車。
   Xiao Li dao Niuyue zuo che.
   'Xiao Li went to New York to ride the bus.'

   b 小李坐車到紐約。
   Xiao Li zuo che dao Niuyue.
   'Xiao Li ride a bus to New York.'

(35)a 我到太湖划船。
   Wo dao Taihu hua chuan.
   'I went to Lake Tai to row a boat.'

   b 我划船到太湖。
   Wo hua chuan dao Taihu.
   'I rowed a boat to Lake Tai.'
Preverbal and postverbal dao phrases indicate different orders with regard to the action. Preverbal dao phrase denotes the location from which the action starts while postverbal dao phrase the location to which the action ends.

B. (38)a 到房間里，老王告訴了我。
Dao fangjian-li, Lao Wang gaosu-le wo.
'Coming into the room, Lao Wang told me.'

b 老王到房間里告訴了我。
Lao Wang dao fangjian-li gaosu-le wo.
'Lao Wang came into the room and told me.'

(39)a 到上海，我考進了大學，他參加了工作。
Dao Shanghai, wo kao jin -le daxue, ta canjia-le gongzuo.
'Arriving in Shanghai, I passed the exam and entered college, he got a job.'

b 我到上海考進了大學，他參加了工作。
Wo dao Shanghai kao jin-le daxue, ta canjia-le gongzuo.
I arrive Shanghai take exam enter PRT college he join PRT job
"I went to Shanghai, passed the exam and entered college, he got a job.'

The difference between sentence initial and preverbal *dao* phrase is that the former points the destination which contains all that follow it while the latter only the element that immediately precedes it.

**Pattern 5** Occurrence of *dao* phrase is possible in either preverbal or postverbal position. Changes in position may have discourse effects but yield little difference in meaning (Cf. p. 12, Note 7).

(40a) 你到沙发上坐著等。
*Ni dao shafa-shang zuo-zhe deng.*
you arrive sofa-LOC sit PRT wait

b 你坐到沙发上等。
*Ni zuo dao shafa-shang deng.*
you sit arrive sofa-LOC wait

'You sit on the sofa and wait.'

(41a) 他到小张先生家裡住。
*Ta dao Xiao Zhang jia-li zhu.*
he arrive Xiao Zhang home-LOC live

b 他住到小张先生家。
*Ta zhu dao Xiao Zhang jia-li.*
he live arrive Xiao Zhang home-LOC

'He will stay at Xiao Zhang's home.'

### 3.1.3. Distribution Patterns of *Gei* Phrase

Since the coverb *gei* contains both 'to' and 'for' meanings, which associate with dative and benefactive respectively, we are dealing with two types of *gei* phrase, or one form with two readings. The form consists of *gei* and an NP object. But one NP object is a dative, or the so-called indirect
object, which may be a noun or a pronoun. The other NP object is also a noun or a pronoun, but represents a benefactive. The identical form with different readings sometimes causes ambiguities.

Unlike *zai* and *dao*, *gei* does not occur in sentence initial position. Zhu (1979) identifies three possible positions for *gei* phrase in Modern Chinese: i. preverbal position; ii. postverbal position, following the direct object (*O-gei*); and iii. postverbal position, preceding the direct object (*gei-O*). Benefactive *gei* phrase occurs only in preverbal position. So ambiguities occur in preverbal position. The three positions can be illustrated as follows:

i. Preverbal: \( \text{gei} + \text{Oi} + \text{V} + \text{Od} \)
ii. Postverbal *O-gei*: \( \text{V} + \text{Od} + \text{gei} + \text{Oi} \)
iii. Postverbal *gei-O*: \( \text{V} + \text{gei} + \text{Oi} + \text{Od} \)

Hereinafter we will refer to the three positions as preverbal position, postverbal *O-gei* position, and *gei-O* position respectively. *O-gei*, and *gei-O* position together will also be referred to as postverbal. The occurrence of *gei* phrase in the three possible positions yields five distribution patterns. The following distribution patterns of *gei* phrase are based on my own observation and the summary of Zhu (1979) and others (Lù, 1980, Yu; 1983; Zhu, 1984) studies.

**Pattern 1:** *Gei* phrase occurs only in preverbal position. Since both dative and benefactive readings are possible in preverbal position,

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3 I adopt symbols different from Zhu's, but the pattern is the same.
ambiguities in meaning may occur in some sentences due to the double roles *gei* has in that position. (44a) and (45a) exemplify such a case.

(42a) 醫生給他檢查身體。
*Yisheng gei ta jiancha shenti.*
'doctor for him examine body
'The doctor gave him a physical examination.'

*b* 醫生檢查給他身體
*Yisheng jiancha gei ta shenti*

*c* 醫生檢查身體給他
*Yisheng jiancha shenti gei ta*

(43a) 鄰居給我們看孩子。
*Linju gei women kan hai zi.*
'neighbor for us take care of kid
'Our neighbor took care of the child for us.'

*b* 鄰居看給我們孩子
*linju kan gei women hai zi*

*c* 鄰居看孩子給我們
*linju kan hai zi gei women*

(44a) 他給我喝了一杯酒。
*Ta gei wo he le yi bei jiu.*
'he give me drink PRT one cup wine
'He gave me a cup of wine to drink.'
or: 'He drank a cup of wine for me.'

*b* 他喝給我了一杯酒
*ta he gei wo le yi bei jiu*

*c* 他喝了一杯酒給我
*ta he le yi bei jiu gei wo*

(45a) 老陳給他看了一篇文章。
*Lao Chen gei ta kan le yi pian wenzhang.*
'Lao Chen give him read PRT one CLF article
'Lao Chen gave him an article to read.'
or: 'Lao Chen read an article for him.'

*b* 老陳給他看了一篇文章
*Lao Chen kan gei ta le yi pian wenzhang*
Pattern 2: Occurrence of *gei* phrase in *gei*-O position is not allowed. So *gei* phrase can occur in O-*gei* and preverbal positions. In preverbal position there are ambiguities in meaning due to the double roles, dative and benefactive, *gei* phrase have in this position.

(46a) 趙師傅給他炒了一盤肉。
Zhao Shifu *gei* ta chao-le yi pan rou.
Zhao master give him fry PRT one plate meat
'Master Zhao fried him a plate of meat.'
or: 'Master Zhao did the frying of a plate of meat for him.'

b 趙師傅炒了一盤肉給他。
Zhao Shifu chao-le yi pan rou *gei* ta.
Zhao master fry PRT one plate meat give him
'Master Zhao fried him a plate of meat.'

(47a) 他給老人買了三幅畫。
Ta *gei* lao ren mai-le san fu hua.
he give old man buy PRT three CLF painting
'He bought the old man three paintings.'
or: 'He made the purchase of three paintings for the old man.'

b 他買了三幅畫給老人。
Ta mai-le san fu hua *gei* lao ren.
he buy PRT three CLF painting give old man
'He bought the old man three paintings.'

(46a) and (47a), with a preverbal *gei* phrase, may have either a dative or a benefactive reading as shown in the English translations.
Pattern 3: Occurrence is possible for *gei* phrase in either preverbal or postverbal positions with little difference in meaning.

(48)a Fangdong gei ta liu -le yi ba yaoshi.
landlord give him leave PRT one CLF key

b Fangdong liu -le yi ba yaoshi gei ta.
landlord leave PRT one CLF key give him
c Fangdong liu gei ta yi ba yaoshi.
landlord leave give him one CLF key

'The landlord left him a key.'

(49)a Zhang-shao-de you gei ta jia-le yi pian rou.
chief again give him add-PRT one piece meat

b Zhang-shao-de you jia-le yi pian rou gei ta.
chief again add PRT one piece meat give him
c Zhang-shao-de you jia gei-le ta yi pian rou.
chief again add give PRT him one piece meat

'The chief added him one more piece of meat.'

Pattern 4: Occurrence of *gei* phrase is possible in either preverbal or postverbal positions but with meaning differences.

(50)a Laoban gei ta mai-le san ben shu.
shopkeeper give him sell PRT three CLF book

b Laoban mai-le san ben shu gei ta.
shopkeeper sell PRT three CLF book give him
c Laoban mai gei ta san ben shu.

The shopkeeper sold three books for him.'
shopkeeper sell give him three CLF book
'The shopkeeper sold him three books.'

(51)a 我給小劉租了一間屋子。
Wo gei Xiao Liu zu-le yi jian fangzi.
I give Xiao Liu rent PRT one CLF house
'I rented one room for Xiao Liu.'

b 我租了一間屋子給小劉。
Wo zu-le yi jian fangzi gei Xiao Liu.
I rent PRT one CLF house give Xiao Liu
'I rented one room for Xiao Liu.'

c 我租給小劉一間屋子。
Wo zu gei Xiao Liu yi jian fangzi.
I rent give Xiao Liu one CLF house
'I rented one room to Xiao Liu.'

(52)a 爸爸給兒子付房租。
Baba gei erzi fu fangzu.
father give son pay rent
'Father pays the rent for his son.'

b 爸爸付房租給兒子。
Baba fu fangzu gei erzi.
father pay rent give son

c 爸爸付給兒子房租。
Baba fu gei erzi fangzu.
father pay give son rent
'Father pays his son the rent.'

Pattern 5: Occurrence of gei phrase is possible in either preverbal or postverbal positions. In preverbal position there are ambiguities in meaning with respect to benefactive and dative readings as illustrated in (53a) and (54a).

(53)a 小李給他寄了一封信。
Xiao Li gei ta ji-le yi feng xin.
Xiao Li give him send PRT one CLF letter
'Xiao Li sent a letter for him.'
or: 'Xiao Li sent a letter to him.'
3.1.4. Summary

The distribution patterns of the three locatives have the following important features in common:

i. Occurrence in similar sentence positions;

ii. Occurrence forbidden in all possible positions (with exception of preverbal \textit{gei} phrase);

iii. Changes in meaning caused by position change;

iv. Changes in position causing little changes in meaning.

Our next step is to examine the semantic functions of the three locative phrases on the basis of their distribution patterns.
3.2 Semantic Functions of Zai/Dao/Gei Phrase

In this section, I will examine the semantic functions of zai/dao/gei phrase in sentence initial position, in preverbal position, and in postverbal position. Comparisons will be made between zai and dao phrases. Sentence initial position applies only to zai and dao phrases. Gei phrase does not occur in sentence initial position.

3.2.1. Sentence Initial Zai/Dao Phrase

A. Zai Phrase

Fan (1982) is the first one to examine in detail the semantic function of zai phrase in sentence initial position. He states:

(55) When "zai + Location" precedes the subject, it indicates the location of events.

It appears that (55) makes a clearer syntactic distinction than a semantic distinction. According to Fan's analysis, an "event" is an NP+VP construction, while an "action" is a VP. Sentence initial zai phrase modifies one or more NP+VP constructions while preverbal and postverbal zai phrases modify a VP. Therefore semantically, sentence initial zai phrase indicates the location for an "event" while a preverbal zai phrase indicates the location of an "action". But it is not clear that a semantic distinction between "event" and "action" can be made.

Furthermore, it seems the location indicated by sentence initial zai phrase should cover both action and participants of the action. However, Fan has observed that the location indicated by preverbal and postverbal zai
phrase, as well as by sentence initial *zai* phrase, do not necessarily covers all participants. He attributes this to "the characteristics of Chinese syntax" (1982: 79) without further explanation. However, he gives good illustrating examples, showing that the location denoted by *zai* phrase may cover: (i) any one of the participants ((56) & (57)), (ii) both participants ((58)), or (iii) neither participants ((59), = (13a) from 3.1, p. 52):

(56) 在飛機上，我看見了長江大橋。
*Zai feiji-shang, wo kanjian-le Changjiang Da Qiao.*
'On the plane, I saw Changjiang Bridge.'

(57) 在第三頁上，我刪了兩句話。
*Zai di san ye-shang, wo shan-le liang ju hua.*
'On page three, I deleted two sentences.'

(58) 在八號車廂裡，我找到了小王。
*Zai ba kao chexiang-li, wo zhao-dao-le Xiao Wang.*
'In the eighth Chamber, I found Xiao Wang.'

(59) 在電話里，老王告訴了我。
*Zai dianhua-li, Lao Wang gaosu le wo.*
'Lao Wang told me on the phone.'

In addition to Fan's observation, we find that sentence initial *zai* phrase also indicates the location of a state. Sentences in Pattern 1 (p.49) in 3.1.1 are examples of such case.

B. *Dao* Phrase

Sentence initial *dao* phrase, like preverbal *dao* phrase, indicates the reached location of an event or a state. An important difference between the two is the scope limitation. The reached location indicated by sentence
initial dao phrase includes all the following NP+VP constructions while that indicated by preverbal dao phrase includes only the NP+VP of the same clause. This can be seen from sentence (38) and (39) (p. 60).

In (39a), both wo kao jin-le daxue 'I passed the exam to enter the college' and ta canjia-le gongzuo 'he got a job' took place in Shanghai, the reached location indicated by sentence initial dao. But in (39b) preverbal dao allows only wo kao jin-le daxue 'I passed the exam to enter the college' to take place in Shanghai.

In (38a), sentence initial dao phrase governs both subject and object, therefore Lao Wang and wo 'I' came to the room together; while in (38b), preverbal dao phrase governs only the subject. So 'I' had been in the room and it was Lao Wang who (later) came in and 'told me' (something).

Sentence (15), (16), (17), and (18) (pp. 54-55) are examples of sentence initial dao phrase indicating the reached location of a state. In these sentences, dao's verbal quality is blurred. In (15), (16), and (18), dao can be replaced by zai without changes in meaning. In such a case, dao phrase provides a background to the whole sentence, and it occurs only in sentence initial position. Dao phrase in (17) serves as an adverbial of time or condition to the sentence. It can be understood as 'when (we / you) arrive Shi-Jia-Zhuang', or 'if (we / you) arrive Shi-Jia-Zhuang', which can be regarded as an abstraction of the basic locative meaning (Cf. Chapter V).

The basic semantic function of the sentence initial dao phrase can be phrased as:

(60) Sentence initial dao phrase indicates a reached location
of the following activities or state of affairs.

3.2.2. Preverbal Zai/ Dao/ Gei Phrase

A. Zai Phrase

A number of linguists\(^4\) have made similar observations about the semantic function of zai phrase. Here we quote Tai (1975) and Fan (1982) with regard to the semantic function of preverbal zai phrase. Tai (1975) states:

(61) The function of a Chinese preverbal place adverbial is to denote the location of an action or a state of affairs, ...

Fan (1982) summarizes:

(62) When "zai+ Location" precedes the verb, it indicates the location at which an action takes place or the location of a state.

Examples of preverbal zai phrase sentences can be seen from sentences in Pattern 2, (b) sentences in Pattern 4, sentence (a) in (11), (b) in (12), (13), and (14) in Pattern 5 (pp. 52-53) in 3.1.1.

In those examples, zai phrase in (3), (4), (7b), and (8b) (pp. 49-51) indicates the location of an action: in (3), 'in the classroom' is the location where the subject 'is reading'; in (4), 'outside' is where the child 'is playing'; in (7b), 'in the canal' is where water 'flows'; in (8b), 'on the bed' is where the child 'is jumping'.

\(^4\) Cf. 王porte, 1957; Chao, 1968; Tai, 1975; Li & Thompson, 1981; 范繼英, 1982; 何樂士, 1984.
Zai phrase in other examples indicates the location of a state of affairs since these sentences are descriptions of certain states. In (b) sentences of (10), (12), (13) and (14) the aspectual particle -le marks completion of actions. Therefore these sentences describe a state after an activity\(^5\). These sentences can be interpreted as, after the actions are completed,

(10)b 'Everyone has a TV (bought from our store).'
(12)b 'Some clothes are hanging on the iron wire.'
(13)a 'I know the information (from Lao Wang's phone call).'</br>(13)b 'There are peonies in the garden.'

In (9b), the particle -de in the shi...de construction exerts two functions. On the one hand, it de-verbalizes the verb shuo 'say'. On the other, it is one element of the confirmation construction with the verb shi 'be', which confirms a state. This sentence can be interpreted as:

(9)b 'This is the statement made by everyone at the mine.'

Sentence (11a) describes a state because the verb zhu 'live' is a state verb. Verb types will be discussed in 3.3.

B. Dao Phrase

Preverbal dao phrase is actually the first VP in a verb serial construction. In general this dao still has its verbal qualities.

Based on the examples in the distribution patterns in 3.1, the semantic function of dao phrase in preverbal position can be phrased as:

\(^5\) Cf. 3.3 for detailed discussion about aspectual situations.
The function of a preverbal *dao* phrase is to indicate the reached location of an activity or a state of the following VP.

Sentences in Pattern 2 (pp. 55-56), (a) sentences from (34) to (37), (38b), (40a) and (41a) (pp. 59-61) in 3.1.2, are examples of this statement.

In sentence (40a) and (41a) *dao* phrase leads to the location of a state. *Dao shafa-shang* 'go to the sofa' indicates the place for the following states of *zuo* 'sit' and *deng* 'wait'.

In other sentences *dao* phrase indicates the reached location of an activity. For example, in (35a), *dao Taihu* 'went to Lake Tai' indicates the place of *hua chuan* 'boating'.

In terms of indicating a location of an activity or a state, preverbal *dao* phrase is very similar to preverbal *zai* phrase. The difference between these two locative phrases lies in the original verbal meanings of *zai* and *dao*. The original meaning of *zai* evokes a relatively static perception while that of *dao* entails a dynamic one. This can be seen from sentences in 3.1 with preverbal *dao* and *zai* phrase respectively. In sentences with *dao* phrase there is a movement of the subject to the location carried by *dao*; but in those with *zai* there is no movement involved.

C. *Gei* Phrase

To define the semantic functions of *gei* phrase, we need first to clarify differences between dative 'to' and benefactive 'for'. In English, distinctions are made between 'to' and 'for' in the following sentences:

(a) He made a phone call to me
(b) He made a phone call for me.
Sentence (a) means 'he called me' while (b) means 'he called some one else on behalf of me'. The relation between 'to', 'for' and their objects is that 'for' generally introduces a benefactive, and 'to' an objective, or a goal. In Chinese, both (a) and (b) can be said in one way using gei:

(64) 他給我打了電話。

*Ta gei wo da-le dianhua.*

he give me make PRT phone call

This shows that *gei* has two readings in preverbal position in such a sentence. One is 'to', the other is 'for'.

It is true that in most cases, meanings can be clarified in contexts and appropriate interpretations can be rendered, and in Chinese there are other words that carry less or no ambiguity that can substitute *gei* in its 'for' meaning. For example, 替 *ti* 'for', 為 *wei* 'for', or in some dialects, 幫 *bang* 'help', (e.g., Guiyang, Wuhan, Chongqing in southwest Mandarin.). However, ambiguity exists since there exists the tendency for the unmarked form to assume "par excellence" meaning, as we discussed in 2.3.

Therefore, the semantic function of preverbal *gei* phrase can be phrased as:

(65) The function of preverbal *gei* phrase is to mark the goal or the benefactive of an action.

In the five distribution patterns, three types of semantic situations are identified with preverbal *gei* phrase.

The first type is that the semantic function of the preverbal *gei* phrase is to denote only the benefactive of an action. Sentence (42) and (43) in
Pattern 1 (p. 62), and (a) sentences in Pattern 4 (p.65-66) in 3.1.3 are examples of this type.

In sentence (42) and (43), the doctor giving a physical exam, and the neighbor taking care of the child are kinds of services for the benefit of the patient, and "us". In sentence (50a) (p.65), the shopkeeper selling books for some one, in (51a) (p.65), "I" renting a room for "Xiao Liu" and in (52a) (p.65), the father paying rent for his son, are also favors being done for another person. There is nothing being given or received in the course of the action. In such cases, usually ti 'for' or wei 'for' can replace gei.

The second type is where the preverbal gei phrase denotes both a benefactive and goal of an action. In other words, the NP following has a dual status -- a benefactive and goal in one. Sentences in Pattern 3 (pp. 64-65) in 3.1.3 represent this type. In sentences (48a) and (49a) (p.64), the activities of leaving a key by the landlord, and adding more meat by the chief may be considered a routine as well as a favor. Receivers of the activities are the goal of the action and at the same time the benefactive of the same action. An important distinction between a pure benefactive and a benefactive and goal, or the distinction between the first type and this type, is that the former does not involve substance giving and receiving activity while the latter does. Although in reality it is hard to really separate a benefactive and a goal, since they are blended, involvement of substance giving and receiving may be used as a criterion to distinguish the two. Because obtaining or possessing something can be regarded as beneficial, in this type, ti 'for' or wei 'for' can also replace gei in the preverbal position.
The third type is where the preverbal gei phrase denotes either a benefactive or a goal. Examples of this type are sentence (44) and (45) in Pattern 1 (p.63), and sentences in Pattern 2 (pp. 63-64) and Pattern 5 (p.66) in 3.1.3.

This type differs from the second in that gei has the two readings, 'to' and 'for', separately. In the 'to' reading, the indirect object of gei is the receiver of the substance given by the subject. In the 'for' reading, the indirect object is not the receiver of the substance but gets benefit from the activity done by the subject. The substance is given to some one else. For example, in (44), in the 'to' reading, 'I' received a cup of wine given by 'him' and drank it. In 'for' reading, 'he' drank a cup of wine for the benefit of 'me' (Maybe 'I' was not able to drink.). Each of the two readings can be expressed in an unambiguous structure as follows:

(44)d 他给了我一杯酒喝。
     Ta gei -le wo yi bei jiu he.
     'He gave me a cup of wine to drink.'

(44)e 他替我喝了一杯酒。
     Ta ti wo he -le yi bei jiu.
     'He drank a cup of wine for me.'

In (53a), in the 'to' reading, 'he' is the receiver of the letter that Xiao Li sent. In the 'for' reading, the letter was written by him to someone else and Xiao Li helped him to mail it. Similarly, Each of the two readings can be expressed in an unambiguous structure as

(53)c 小李寄了一封信给他。
     Xiao Li ji -le yi feng xin gei ta.
     'Xiao Li send one CLF letter give him'
'Xiao Li sent a letter to him.'

Xiao Li gei ta ji -le yi feng xin gei wo.
Xiao Li give him send PRT one CLF letter give me
'Xiao Li sent a letter to me for him.'

The distinction between the second and the third type can be made in terms of ambiguity and vagueness as discussed in 2.3. The third type, being understandable in more than one way and each exhibits a different structure which is visible in an ambiguous examples, allows ambiguity. On the other hand, the second type, with "looming large" borderland, merely creates vagueness with respect to benefactive and goal readings.

3.2.3. Postverbal Zai/ Dao/ Gei Phrase

A. Zai Phrase

Tai's (1975) statement about semantic function of postverbal zai phrase is

(65) ...that of a postverbal one is to denote the location of a participant of an action as a result of the action.

Fan's (1982) statement is fundamentally different from Tai's. He states:

(66) When "zai + Location" follows the verb, it indicates the location that an action reaches or the location of a state.

Notice that Tai claims that the location denoted by zai phrase is "the location of a participant of an action as a result of the action," while Fan asserts it is "the location that an action reaches or the location of a state."
Examining our examples in the distribution patterns of *zai* phrase, we find that both claims in general hold. Examples in Pattern 3 (p.50), sentence (a) in (6) and (7) of Pattern 4 (p.51) exhibit postverbal *zai*'s function of denoting the location of "a participant of an action as a result of the action," and the location "an action reaches". Fan's claim applies to all those sentences. But Tai's is more selective in the case of transitive verbs: the two participants of the action, the subject and the object, may not both be in the location as a result of the action. For instance, in (12c), the subject *Xiao Wang*, is not 'on the iron wire', the denoted location, but the object, some clothes, are 'on the iron wire', as a result of the 'hanging' action. For intransitive verbs Tai's statement holds up. We will have detailed discussion about this when dealing with argument structures in 3.4. Fan's statement seems somewhat farfetched in certain situations. For instance, in (14c), does the action 'to plant' reach the garden? His statement gets around some particularities and at the same time, avoids controversies.

As for postverbal *zai* phrase denoting the location of a state, (11b), (12c), and (14c) in Pattern 5 (pp. 52-53) are examples; in (11b), again, because *zhu* is a state verb; in (12c) and (14c), again, because the particle *-le* indicates the remaining state after an action.

Combining statements by Tai and Fan, we get a complete picture of the semantic functions of postverbal *zai* phrase. There is little doubt that postverbal *zai* phrase denotes the location of a state. As for the claims that Tai and Fan differ, we will find out after the discussion of verb arguments in 3.4 that it is more accurate to claim that postverbal *zai* phrase denotes the location of the patient of an action as a result of the action (Cf. 3.4).
B. *Dao* Phrase

I propose the semantic function of postverbal *dao* phrase be described as follows:

(67) The semantic function of the postverbal *dao* phrase is to indicate the destination of the participant of an action as a result of the action or the location of the resultative state.

It is very clear that *dao* phrase in the examples in Pattern 3 (pp. 57-58), and (b) sentences from (34) to (37) (p.59) in 3.1.2 (p. 52) indicates the destination of the activity expressed by the preceding verb. In (40b) and (41b) (p.61) *dao* phrase denotes the destination of the state described by the preceding verb. As a matter of fact, in this position, *dao* phrase is found to occur much more frequently than *zai* phrase though they have similar functions. The reason will become clear when we discuss aspectual features in 3.3.

C. *Gei* Phrase

The postverbal *gei* phrase is not as complicated as the preverbal one. Though there are two types of positions, *geiO* and *Ogei*, the semantic function of postverbal *gei* phrase can be stated as:

(68) The function of postverbal *gei* phrase is to mark the goal of an action.

Examples of this statement include sentence (b) in Pattern 2 (pp. 63-64), (b) and (c) sentences in Pattern 3 (pp. 64-65), Pattern 4 (pp. 65-66), and Pattern 5 (p.66) in 3.1.3.
The semantic condition in postverbal *gei* phrase is very clear. Substance giving and receiving activity is involved, which, as pointed out earlier, is a clear-cut indication of "goal". Since postverbal *gei* phrase has only one reading, to eliminate confusion between a goal and a benefactive, (69a) may be preferred to (69b).

(69)a 他打了電話給我。
   *Ta da-le dianhua gei wo.*
   he make-PRT telephone give me
   'He called me.'

b 他給我打了電話。
   *Ta gei wo da-le dianhua.*
   he give me make-PRT telephone
   'He called me.'
or  'He called for me.'

3.2.4. Summary

The semantic function of *zai/dao/gei* phrase can be summarized as follows:

The semantic function of *zai* phrase are:

- To indicate the location of the following action(s) in sentence initial position;
- To indicate the location of an action in preverbal position;
- To indicate the location of the patient of an action as a result of the action in postverbal position;
- To indicate the location of a state of affairs in sentence initial, preverbal, and postverbal position.

The semantic function of *dao* phrase are:

- To denote the direction of action(s) in sentence initial position;
- To denote the direction of an action in preverbal position;
- To denote the destination of the patient of an action as a result of the action in the postverbal position.
- To denote the destination of a state in sentence initial, preverbal, and postverbal position;

The semantic functions of *gei* phrase include:

- To mark the goal or the benefactive of an action in preverbal position;
- To mark the goal of an action in postverbal position.

Linking together the above summary of semantic functions with the summary of the distribution patterns of the three locatives leads to questions about why for *zai* and *dao* phrases, in certain cases, certain functions are not able to be performed in certain positions; and why in certain cases, the same function applies in all possible positions. To investigate these phenomena, we must broaden our discussion to include aspectual situations and verb types.

### 3.3 Aspectual Situations and Verb Types

In this section, the discussion about aspectual situations and verb types categorized according to aspectual features applies mainly to *zai* and *dao* phrases. Discussion on *gei* phrase does not involve aspectual features, and the categorization of verbs related to *gei* is based more on the relation between *gei* and its objects. Therefore I will discuss verb types related to *gei* in the section on argument structure.
My discussion in regard to aspectual situation and verb type categorizations is based on relevant studies done by Fan (1982), Li & Thompson (1981), Lü (1958), Zhu (1982), and He (1992). Given the purpose and scope of this study, I will not be able to go into detailed arguments with respect to aspectual situations and verb types. I will focus on essential observations relevant to this study.

3.3.1. Static Situation and Verb Types: Zai / Dao Phrase

As mentioned in Chapter Two, there are two basic types of aspectual situations: static situation and dynamic situation. Following this broader categorization, a static situation is conceived of as "existing, rather than happening, and as being homogeneous, continuous and unchanging throughout its duration", which is in contrast with dynamic situation that is defined as "something that happens (or occurs, or takes place): It may be momentary or enduring; it is not necessarily either homogeneous or continuous, but may have any of several temporal contours, and...may or may not be under the control of an agent." (Lyons, 1977: 482, 707). According to these definitions, zai phrase can be categorized as indicating static situations. The original meaning of zai, "to be at, to exist", supports this categorization. The verb dao is dynamic. Its original meaning, "to arrive, to reach; to go", is characterized by happening, non-duration, and telicity, so it belongs to the action verb category.

Although static and dynamic situations, and state and action are two different sets of situations, they are in many ways related. Lü (1956:57-60) points out several cases. Among them two cases are relevant to our present
discussion. One is the continuing state. That is, when an action becomes a homogeneous continuity, it appears as a static situation. The other can be named the remaining state. That is, after an action completes, the remaining existence also presents itself as a static situation. For example, \textit{zai qian-mian zhan-zhe} 在前面站著 'at the front standing' is a description of a homogeneous, continuing posture which appears as a static situation. Another example, \textit{zhan zai qian-mian} 站在前面 'standing at the front', after the action 'to stand' finishes, what remains is 'being in the front by way of standing', which also exhibits a static situation. In this study, we call the two kinds of state continuing states and remaining states. They are also recognized as existential states. In existential states, -zhe is often used to mark duration and continuation in continuing states; -le marks completion of an action in remaining states.

Among other static situations of degree, following He's categorization (1992: 145-160), there are absolute states, non-absolute states, mental states/activities, and habituials. \textit{Zai} and \textit{dao} phrases occur in all these states.

\footnote{He (1992: 148) states:}

\begin{quote}
The static meaning of the existential state is expressed by a particular group of static verbs suffixed by -zhe in a particular sentence construction. The particular sentence construction is commonly called existential sentence, with the initial position of expressions denoting place, and the predicates indicating the existence of a person or a thing.

\end{quote}
Following the spirit of the above discussion on remaining state, we also include He's "change-of-state" situation in our static situations, for the purpose of this study.

"Change-of-state" comes from situations presented by achievement verbs and resultative verb compounds (RVC). Achievement verbs have the feature of instantaneous change of state. The change happens in one moment. As soon as it takes place it finishes. What remains is the changed state, which can be regarded as the remaining state. As for RVC, according to He, the second element of RVC presents the changed state, which is the head; the first element presents the change, which is the adverbial modifier of the second one. Together they present a change-of-state situation.

The following are examples of verbs of the static situations where zai and dao phrase occur.

**Verbs of absolute states**

These are verbs that are usually used to equate, to identify or to name a person or an object.

- **you** 有 'have'
- **shi** 是 'be'
- **shuyu** 屬於 'belong to'
- **haoxiang** 好像 'seem'

**Verbs of non-absolute states**

Verbs in this category are traditional adjectives.

- **hao** 好 'good'
- **qingchu** 清楚 'clear'
- **gao** 高 'tall'
- **shizai** 質在 'honest'
Verbs of mental states/activities

This type of verbs express a human being's emotional or mental states.

- ai 愛 'love'
- xin 信 'believe'
- zhidao 知道 'know'
- hen 恨 'hate'
- xiwang 希望 'hope'
- jiaoji 焦急 'worry'

Verbs of habituals

Habitual situations are homogeneous, repetitive activities, and can be regarded as continuing states.

- shuijiao 睡覺 'sleep'
- yujian 遇見 'meet'
- chi-fan 吃飯 'eat'
- kai-che 開車 'drive'

Verbs of existential states

There two sub-types, verbs of posture and verbs of placement.

Verbs of posture

Verbs of posture depict the posture of an entity, typically an animate being, but sometimes an inanimate one.

- zhan 站 'stand'
- kao 靠 'lean'
- pa 趴 'crouch'
- dun 蹲 'squat'
- zuo 坐 'sit'
- tang 躺 'lie down'
- gui 跪 'kneel'
- songli 跌立 'rise'

Verbs of placement

Verbs of placement describe states of entities by way of their being placed or located.
Verbs of change-of-state

There are two sub-types, achievement verbs and resultative verb compounds.

**Achievement verbs**

- **si** 死 'die'
- **dao** 倒 'fall over'
- **xiaoshi** 消失 'disappear'
- **fasheng** 發生 'happen'

**Resultative verb compounds**

- **yabian** 壓扁 'press-flat'
- **shuaisui** 摔碎 'throw-pieces'
- **zhuangdao** 撞倒 'hit down'
- **jiashen** 加深 'deepen'

We will examine occurrences of these types of verbs with *zai* and *dao* phrase in all possible positions.
A. **Zai Phrase**

In static situations, the relationship between *zai* phrase and the above state verbs has the following regularities:

i. In sentence initial and preverbal position *zai* phrase occurs with verbs of all types of state, i.e., from absolute states to change-or-state. As can be seen in the following examples, there is little difference in meaning between the (a) and (b) sentences.

(70)a (verbs of absolute states)
Zai jia -li wo shi lao da.
*At home I am the oldest.*

b Wo zai jia -li shi lao da.
*I am the oldest.*

(71)a (verbs of non-absolute states)
Zai shan -ding, kongqi gengjia xibao.
*The air is even thinner at the top of the mountain.*

b Kongqi zai shan -ding gengjia xibao.
*The air is even thinner at the top of the mountain.*

(72)a (verbs of mental states)
Zai zheli ta xin -le shangdi.
*In here he has believed in God.*

b Ta zai zheli xin -le shangdi
*In here he has believed in God.*

(73)a (verbs of habituals)
Zai gaosu gonglu-shang ta kai che hen xiaoxin.
*He drive car very carefully.*

b Ta zai gaosu gonglu-shang kaiche hen xiaoxin.
he at high speed road-LOC drive car very careful
'On the free way he drives very carefully.'

(74)a 在岸邊聳立著一座燈塔。
Zai anbian songli -zhe yi zuo dengta.
at  bank tower aloft PRT one CLF lighthouse

b 一座燈塔在岸邊聳立著。
Yi zuo dengta zai anbian songli -zhe.
one CLF lighthouse at bank tower aloft PRT
'By the bank towers a lighthouse.'

(75)a 在台上我放了鮮花。
Zai tai-shang wo fang-le xianhua.
at  stage-LOC I put PRT fresh flower

b 我在台上放了鮮花。
Wo zai tai-shang fang-le xianhua.
I at stage-LOC put PRT fresh flowers
'I put fresh flowers on the stage.'

(76)a 在超級市場門口發生了車禍。
Zai chaoji shichang menkou fasheng-le che huo.
at  super market gate happen PRT car accident

b 車禍在超級市場門口發生了。
Che huo zai chaoji shichang menkou fasheng-le.
car accident at super market gate happen PRT
'At the gate of the super market a car accident happened.'

(77)a 在廣場上他提高了聲音。
Zai guangchang shang ta tigao -le shengyin.
at square -LOC he raise high PRT voice

b 他在廣場上提高了聲音。
Tu zai guangchang shang tigao -le shengyin.
he at square -LOC raise high PRT voice
'At the square he raised his voice.'

ii. In postverbal position, zai phrase occurs only with verbs of existential states and certain verbs of change-of-state, which signifies that in this position, zai phrase does not occur with verbs of absolute states, of
non-absolute states, of mental states/activities, of habituials, or certain verbs of change-of-states.

The following examples show postverbal *zai* phrase occurring with verbs of existential states and certain verbs of change-of-state. (74c) to (76c) correspond to (74a/b) to (76a/b). (78) is an example of postverbal *zai* with an RVC, (5a) and (6a) from Pattern 2 in 3.1.1 are examples of achievement verbs.

(74)c 一座燈塔聳立在岸邊。
Yi zuo *dengta* songli *zai* an-bian.
one CLF lighthouse tower aloft at bank
'A lighthouse towers by the bank.'

(75)c 我放了鮮花在台上。
Wo fang-le *xianhua* *zai* tai-shang.
I put PRT fresh flower at stage-LOC
'I put a bottle of fresh flowers on the stage.'

(76)c 車禍發生在超級市場門口。
Che huo *fasheng* *zai* chaoji shichang menkou.
car accident happen at super market gate
'The car accident happened at the gate of the super market.'

(78) 小孩撞倒在樓梯上。
Xiaohai zhuangdao *zai* louti shang.
child bump down at stairs-LOC
'The child bumped down on the stairs.'

(5)a 桶掉在井里。
*Tong* diao *zai* jing-li.
bucket drop at well-LOC
'The bucket dropped in the well.'

(6)a 他跌在地上。
*Ta* die *zai* di-shang
he fall at ground-LOC
'He fell on the ground.'
The following are examples of verbs that do not occur with postverbal \textit{zai} phrase. They correspond to (71a/b) to (73a/b) and (77a/b) with preverbal \textit{zai} phrase representing verbs of absolute states, non-absolute states, mental states/activities, habituals, or certain other verbs of change-of-state.

(70)*
\begin{verbatim}
wo shi lao da zai jia  li
I   be oldest at home-LOC
\end{verbatim}

(71)*
\begin{verbatim}
Kongqi gengjia xibao zai shan  -ding
air  more thin at mountain top
\end{verbatim}

(72)*
\begin{verbatim}
ta  xin  -le shangdi zai zheli
he believe PRT god at here
\end{verbatim}

(73)*
\begin{verbatim}
ta  kaiche zai gao su  gonglu shang he  xiaoxin
he drive car at high speed road-LOC very carefully
\end{verbatim}

(77)*
\begin{verbatim}
ta  tigao  -le shengyin zai guangchang shang
he raise high PRT voice at square -LOC
\end{verbatim}

The above examples indicate that in postverbal position, \textit{zai} phrase only associates with remaining states, which are presented by verbs of existence and certain verbs of change-of-state. \textit{Zai} phrase denotes the location of remaining states. Another condition that co-occurs with postverbal \textit{zai} phrase is that remaining states must have obligatory association with the location denoted by \textit{zai} phrase. In other words, there needs to be a kind of attachment relation between the two. Some verbs

\footnote{In the case of contrast this sentence is acceptable: \textit{Ta kaiche zai gao su  gonglu shang hen xiaoxin, zai cheng li hen dayi. 'He drives carefully on free-way, but careless on local.'}}
present a remaining state but if that state does not necessarily need a location, co-occurrence with postverbal zai phrase is not possible. Some RVCs exhibit such behavior. For instance, tigao 'raise' in (77c). His voice becomes high after 'raising'. The highness is a remaining state. But this entity of remaining state does not have obligatory association with the locative entity, the square. Therefore zai phrase cannot occur. Compared with shuaidao 'fall down' in (78), the remaining state dao 'down' has an inherent association with a location. Suppose we hear a statement "the child fell down." Natural responses would be "where". "Where" is associated with the place the child fell down. While a common response to a statement "he raised his voice" is unlikely to be "where" but more likely to be "how" or "why". So remaining states and the inherent association between remaining states and a location are necessary conditions for postverbal zai phrase to occur in static situations.

iii. From (i) and (ii), it can be induced that with verbs of existential states and some verbs of change-of-state, zai phrase occurs in all the three possible positions, i.e., sentence initial, preverbal, and postverbal positions. Changes in position cause little difference in meaning of the sentence.

B. Dao Phrase

In static situations, with regard to verbs of different state types, dao phrase exhibits the following regular behaviors in the three possible positions:
i. In sentence initial and preverbal position, *dao* phrase occurs with verbs of all types of state, i.e., verbs of absolute state, of non-absolute state, of mental state, of habitu als, of existential, and of change-of-state.

Here are examples we had for *zai* phrase earlier and now *dao* takes the place of *zai*. There is little difference in meaning between (a) and (b) sentences with sentence initial and preverbal *dao* respectively.

(70)a' 到家里我是老大。
   *Dao jia -li wo shi lao da.*
   arrive home-LOC I be oldest

   b' 我到家里是老大。
   *Wo dao jia -li shi lao da.*
   I arrive home-LOC be oldest

   'Arriving home I am the oldest.'

(71)a' 到山頂，空气更加稀薄。
   *Dao shan -ding, kongqi gengjia xibao.*
   arrive mountain top air even thin

   b' 空气到山頂更加稀薄。
   *Kongqi dao shan -ding gengjia xibao.*
   air arrive mountain top more thin

   'Air is even thinner arriving at the top of the mountain.'

(72)a' 到这里他信了上帝。
   *Dao zheli ta xin -le shangdi.*
   arrive here he believe PRT God

   b' 他到这里信了上帝。
   *Ta dao zheli xin -le shangdi*
   he arrive here believe PRT god

   'Arriving in here he has believed in God.'

(73)a' 到高速公路上他开车小心。
   *Dao gaosu gonglu-shang ta kaiche hen xiaoxin.*
   arrive high speed road -LOC he drive car very carefully

   b' 他到高速公路上开车小心。
   *Ta dao gaosu gonglu-shang kaiche hen xiaoxin.*
   he arrive high speed road-LOC drive car very careful
'Arriving on free way he drives very carefully.'

(74)a' 到岸邊, 一座燈塔聳立著。
*dao  an-bian yi zuo dengta songli -zhe.*
Arriving bank one CLF lighthouse tower aloft PRT
'Arriving at the bank, a lighthouse towers.'

(76)a' 到超級市場門口發生了車禍。
*Dao  chaoji shichang menkou fasheng-le che huo.*
Arrive super market gate happen PRT car accident
'Arriving at the gate of the super market, a car accident happened.'

This behavior of *dao* phrase is very similar to *zai* phrase except for the meaning *dao* carries. *Dao* phrase entails a movement to the location, while *zai* phrase does not. So for example, in (70), replacing *zai* with *dao*, the meaning for both (a) and (b) is 'Going to home I am the oldest'. This is also the case in (72), (73), (75), (76), and (77).

ii. *Dao* phrase does not occur in preverbal position if its movement feature cannot be realized. Consider the following ((15b), (17b) and (18b) are from Pattern 1 in 3.1.2):
Unlike examples in (i) above, in (15b), (17b), (18b), (74b'), and (76b'), preverbal *dao* is not allowed. As mentioned in 3.2, preverbal *dao* is actually the first verb in a serial verb construction and the subject implements the action of *dao*. In (15b), (17b), (18b), (74b'), and (76b'), the subjects, *tianqi* 'weather' (in (15b)), *Beijing* (in (17b)), *zhe zuo lou* 'this building' (in (18b)), *dengta* 'lighthouse' (in (74b')), and *chehuo* 'car accident' (in (76b')), are unmovable and cannot implement the movement action of *dao*. Thus they cannot co-occur with preverbal *dao* phrase.

However, in (15a), (17a), (18a), (74a') and (76a') where *dao* phrase is in sentence initial position, 'weather' (in (15a)), *Beijing* (in (17a)), 'this

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7 With a comma before Shijiazhuang, the sentence has a reversed meaning of (17):

北京到了 石家庄就兩小時了。
Beijing Dao   -le Shi-Jia-Zhuang jiu liang xiaoshi-le.
Beijing arrive PRT Shi-Jia-Zhuang just two   hour PRT
'Arriving Beijing, Shijiazhuang is just two hours away.'
building' (in (18a)), 'lighthouse' (in (74a')), and 'car accident' (in (76a')) are not the subject implementing the action of *dao*. Entities that implement the action of *dao* do not appear in these sentences because they are understood in context and do not need to be brought out. These sentences may be understood as:

(15)a (We / You) go to the north, (we / you find) weather is very cold.

(17)a (We / You) arriving at Beijing, (we are) just two hours away from Shijiazhuang.

(18)a (We / You) going outside the city, (and will find that) this building is the tallest.

(74)a (We / You) arriving at the bank, (saw that) a lighthouse towers aloft.

(76)a' (The car / We) reached the gate of the super market and the accident happened.

iii. In postverbal position, *dao* phrase occurs only with verbs of existential states and certain verbs of change-of-state. In static situations *dao* phrase can occur with these verbs in all three possible positions. This is very similar to *zai* phrase.

With verbs of posture in existential states, *dao* and *zai* are interchangeable. In Beijing Mandarin, preverbal *zai* and *dao* can be omitted, postverbal *zai* and *dao* can have the same weakened pronunciation [ta] or be omitted (Guo, 1986:21). For example,

(79)a 你在 / 到沙发上看著等。
*Ni zai / dao shafa-shang zuo-zhe deng.*
you at / reach sofa-LOC sit PRT wait

a' 你沙发上看著等。
*Ni shafa-shang zuo-zhe deng.*
you sofa-LOC sit PRT wait
Two assumptions may be made about this phenomenon. One is that the verbal property of *dao* is greatly weakened with posture verbs; the other is that in such cases there is only one word, either *zai* or *dao*. The difference may come from varied pronunciations across dialects.

With verbs of change-of-state, *dao* phrase occurs in all three positions. But in postverbal position, *zai* rather than *dao* occurs with verbs that inherently require an ending at a location. With verbs that do not so require, it is *dao* rather than *zai* that takes the position. For example, *zhuan dao* 'bump down' and *tigao* 'raise'. The former has inherent association with a location, the latter does not. So in (81) and (82), *zai* and *dao* occur with each of them accordingly.
It seems in this situation that zai and dao are compensating each other.

While dao phrase occurs in all the three possible positions with verbs of existential state and certain verbs of change-of-state, position change does cause changes in meaning, especially when dao phrase is in the postverbal position with verbs of change-of-state. This is different from zai phrase and is also because of dao's verbal property. Take (82) for example:

(82)a  
Pingtai tigao dao san lou.  
Platform raise arrive third floor  
'The platform has been raised to the third floor.'

b'  
Dao san lou, pingtai tigao-le.  
arrive third floor platform raise PRT  
'Coming to the third floor, the platform has been raised.'

c  
Pingtai dao san lou tigao-le.  
platform arrive third floor raise PRT  
'The platform has been raised coming to the third floor.'
There is little meaning difference between (82b) and (82c) which have sentence initial and preverbal *dao* phrase respectively. But the meaning in (82a) with the postverbal *dao* phrase is very different from the other two in that in (82a) *san lou* is the ending point as a result of *ti-gao* while in (82a) and (82c) it is the starting point of *ti-gao*.

### 3.3.2. Dynamic Situation and Action Verbs: *Zai/Dao Phrase*

As quoted from Lyons (1977: 707) earlier, dynamic situation involves activities, which may be momentary or enduring, and are not necessarily either homogeneous or continuous, but may have any of several temporal contours, and may or may not be under the control of an agent.

In dynamic situation, three kinds of situation are recognized: activity, accomplishment, and achievement (cf. He, 1992). Since we have included achievement in static situation for this study, we now have activity and accomplishment in dynamic situation.

In Chinese, differences between activity and accomplishment lie in the fact that activity presents progressive aspect, while accomplishment does not; activity does not entail an ending, while accomplishment does. Accomplishment can be regarded as a combination of activity and achievement. It entails the process of activity and the ending. It is goal oriented. Activity verbs have a number of categories. Accomplishment is formed by a verb and certain quantified or demonstrated objects. For example, *kanshu* 'read', *ting* 'listen' are activities, *kan-le na ben shu* 'read that book', *ting-le san bian* 'listened for three times' are accomplishment.
Here are some examples of verbs that can occur with zai and dao phrases in all three positions.

**Verbs of placement**

Verbs of placement have both static and dynamic uses. This can be illustrated by the following examples:

(83)a 画在墙上挂着。
   *Hua zai qiang-shang gua-zhe.*
   picture at wall-LOC hang PRT
   'The picture is hanging on the wall.'

   b 他在墙上画。
   *Ta zai qiang-shang gua hua.*
   he at wall-LOC hang picture
   'He is hanging a picture on the wall.'

(84)a 他在床上躺了三天。
   *Ta zai chuang-shang tang le san tian.*
   he at bed-LOC lie PRT three day
   'He has been lying in bed for three days.'

   b 他正往床上躺呢。
   *Ta zheng wang chuang-shang tang ne.*
   he just toward bed-LOC lie PRT
   'He is starting to lie on the bed.'

In (a) sentences the verbs are in static use and in (b) in dynamic use.

In addition to verbs of placement listed in the section on state verbs in 3.3.1 (pp. 83-85), here are more examples.

<table>
<thead>
<tr>
<th>Verb</th>
<th>Pinyin</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>yin</td>
<td>印</td>
<td>'print'</td>
</tr>
<tr>
<td>hua</td>
<td>畫</td>
<td>'draw, paint'</td>
</tr>
<tr>
<td>ke</td>
<td>刻</td>
<td>'carve'</td>
</tr>
<tr>
<td>zhi</td>
<td>織</td>
<td>'weave'</td>
</tr>
<tr>
<td>xie</td>
<td>寫</td>
<td>'write'</td>
</tr>
<tr>
<td>chao</td>
<td>抄</td>
<td>'copy'</td>
</tr>
<tr>
<td>zhong</td>
<td>種</td>
<td>'plant'</td>
</tr>
<tr>
<td>xiu</td>
<td>細</td>
<td>'embroider'</td>
</tr>
<tr>
<td>ban</td>
<td>辦</td>
<td>'run'</td>
</tr>
<tr>
<td>jianli</td>
<td>建立</td>
<td>'establish'</td>
</tr>
</tbody>
</table>
Verbs of displacement

A few displacement verbs exhibit contrast features with regard to the position of zai or dao phrase, for example, tiao 'jump'. With preverbal zai or dao, it exhibits features of duration and repetition. With postverbal zai or dao, it presents features of instancy and non-repetition.

\[
\begin{align*}
tiao & \quad \text{'jump'} \\
pao & \quad \text{'run'} \\
liu & \quad \text{'flow'} \\
pa & \quad \text{'crawl'} \\
gun & \quad \text{'roll'} \\
reng & \quad \text{'toss'} \\
tui & \quad \text{'push'} \\
l & \quad \text{'pull'} \\
tuo & \quad \text{'drag'} \\
jihe & \quad \text{'gather'}
\end{align*}
\]

A. Zai Phrase

i. Sentence initial zai phrase generally occurs with accomplishments. In Pattern 2, the unacceptable sentence with an activity verb and sentence initial zai phrase, (3c) and (4c)

*(3c). 在教室里他看书
zai jiaoshi -li ta kan shu
at classroom-LOC he look book

*(4c). 在外面小孩子玩
zai wai-mian xiao haizi wan
at outside small child play

become good sentences if the verbs change to accomplishments with perfective aspects:
ii. Preverbal *zai* phrase occurs with both accomplishments and activity verbs. Below, (3a), (4a), (7b), and (8b) in Pattern 2 and 4 in 3.1.1 are examples of activity verbs. (3a') , (4a') , (7b') and (8b') are examples of accomplishments:

(3a). 他在教室里看书。
*Ta zai jiaoshi-li kan shu.*
He is reading in the classroom.'

(3a'). 他在教室里看了這本書。
*Ta zai jiaoshi- li kan le zhe ben shu.*
He read this book in the classroom.'

(4a). 小孩子在外面玩。
*Xiao haizi zai wai-mian wan.*
The child is playing outside.'

(4a'). 小孩子在外面玩了兩個遊戲。
*Xiao haizi zai wai-mian wan-le liang ge youxi.*
The child played two games outside.'

(7b). 水在渠里流。
*Shui zai qu -li liu.*
Water flows in the canal.'

(7b'). 水在渠里流了三天。
*Shui zai qu -li liu -le san tian.*
Water flows in the canal for three days.
‘Water flows in the canal for three days.’

(8)b 小孩子在床上跳。
Xiao haizi zai chuang-shang tiao-le ge wu.
child at bed-LOC dance PRT dance
‘The child was jumping on the bed.’

b’ 小孩子在床上跳了一圈。
Xiao haizi zai chuang-shang tiao -le yi quan.
little child at bed-LOC jump PRT one circle
‘The little child jumped a circle on the bed.’

iii. Postverbal zai phrase occurs with both verbs of activity and accomplishments.

(7a) and (8a) in Pattern 1 have activity verbs; (12c) and (14c) from Pattern 5 in 3.1.1 are examples of accomplishments:

(7)a. 水流在渠里。
Shui liu zai qu-li.
water flow at canal-LOC
‘Water flows into the canal.’

(8)a. 小孩子跳在床上。
Xiao haizi tiao zai chuang shang.
little child jump at bed-LOC
‘The little child jumped onto the bed.’

(12)c 小王晾了几件衣服在铁丝上。
Xiao Wang liang -le ji jian yifu zai tiesi-shang.
Xiao Wang hang PRT few CLF clothes at iron wire-LOC
‘Xiao Wang has hung some clothes on the iron wire.’

(14)c 我种了几棵牡丹在院子里。
Wo zhong-le ji ke mudan zai yuanzi-li.
I plant PRT few CLF peony at garden-LOC
‘I planted a couple of peonies in my garden.’

An activity verb complemented by a postverbal zai phrase in fact forms an accomplishment. Postverbal zai phrase contains the place at which the activity stops. Therefore postverbal zai phrase serves as the
ending point of the accomplishment. The whole sentence is in an accomplishment situation. This is the case for (7a) and (8a).

For transitive activity verbs with a simple object, *ba* construction is usually used. For example, to say 'he wrote characters on the blackboard', (85a) is preferred to (85b), unless the verbal aspectual situation is an accomplishment as in (85c). The *ba* construction is used for a bound event (Szeto 1987) thus can be interpreted as accomplishment. Therefore (85a) and (85c) but not (85b).

(85)a 他把字寫在黑板上。
*Ta ba zi xie zai heiban shang.*
he PRT character write at blackboard-LOC
'He wrote characters on the blackboard.'

*b* 他寫字在黑板上。
*ta xie zi zai heiban shang*
he write character at blackboard-LOC

c 他寫了一行字在黑板上。
*Ta xie -le yi hang zi zai heiban shang*
he write PRT one line character at blackboard-LOC
'He wrote a line of characters on the blackboard.'

Very few activity verbs only occur with postverbal *zai* phrase. They are mostly used in written Chinese and can be in static (e.g., (87)) or dynamic (e.g., (86)) situations. For example:

(86) 該公司一舉挾軍在大陸之產銷市場。
*Gai gongsi yiju huijun zai dalu zhi chanxiao shichang.*
this firm with-one-action command-an-army at mainland consumer market
'This company drove into the mainland market with one blow.'

(87) 畢業生投身在各行業之中。
Biye sheng toushen zai ge zhong hangye zhi zhong.
graduates throw-self-into at various CLF walks of life PRT
LOC
'Graduates threw themselves into various professions.'

Other verbs of this behavior include: zuoluo 坐落 'situated', lingjia 凌驾 'override', chenshi 醉尸 'lay-body', chenzui 沉醉 'intoxicate', pianzhong 偏重 'lay stress on', and juxian 局限 'limit'. The syntactic as well as semantic structures of these verbs vary considerably and would need another study to investigate. However, as least it can be seen that all these verbs are disyllabic and their use are generally limited to written Chinese.

B. Dao Phrase

In dynamic situations, dao phrase shares most characteristics with zai phrase. They include:

i. In sentence initial position, dao phrase generally occurs with accomplishment situation. This can be seen from (38a) and (39a) in Pattern 4 in 3.1.2.

ii. Preverbal dao phrase occurs with activity verbs or accomplishments on condition that activity verbs be durative. Sentences in Pattern 2 (3.1.2), (a) sentences from (34) to (37) in Pattern 4 (3.1.2) are examples of activity verbs; (b) sentences in (38) and (39) in 3.1.2 are examples of accomplishments.

iii. Postverbal dao phrase occurs with both activity verbs and accomplishments. (29) and (33) in Pattern 3, and (b) sentences from (34) to
Like postverbal *zai* phrase, postverbal *dao* phrase and the preceding activity verb also form an accomplishment. As a result, the whole sentence presents an accomplishment situation.

Because of its semantic meaning, postverbal *dao* phrase co-occurs with many more verbs than postverbal *zai* phrase. Generally speaking, activity verbs that co-occur with postverbal *zai* phrase are limited to verbs of placement and displacement, which are verbs that have inherent association with a location. Both postverbal *zai* and *dao* accommodate them. But for other types of verbs that do not have this property, *dao* phrase must be the choice because of its meaning of directing the preceding entity to a location. This is the same reason for the same capacity that postverbal *dao* possesses in static situations.

The following examples show some verbs that only postverbal *dao* phrase can co-occur with.

(88) 他一直把大夫送到門外。
*Ta yizhi ba daifu song dao men-wai.*
he all the way PRT doctor see off arrive door outside
'He saw the doctor off outside the door.'

(89) 他得在天亮前趕到城里。
*Ta deyai tian liang qian gan dao cheng-qi.*
he must at sky bright before rush arrive town-LOC
'He must rush to town before daybreak.'

(90) 李老師調到新學校去了。
*Li laoshi diao dao xin xuexiao qu le.*
Li teacher transfer arrive new school go PRT
'Teacher Li was transferred to the new school.'
Sentence (27), (28), and (b) sentences from (34) to (37) in Pattern 4 in 3.1.2 are examples of this case. Postverbal \textit{zai} cannot occur with those verbs.

The above comparison between postverbal \textit{zai} and \textit{dao} shows that \textit{dao} contains stronger verbal characteristics and \textit{zai} in many cases is more like a preposition. The following phenomenon adds more evidence to this observation.

With regard to postverbal \textit{zai} and \textit{dao}, in addition to V-\textit{zai} and V-\textit{dao} construction, there are V-O-\textit{zai} and V-O- \textit{dao} constructions. We have observed that V-O-\textit{zai} is limited to only a handful of verbs, i.e., those that are used in written Chinese. The \textit{ba} construction is used predominantly in this case. Although in sentences with postverbal \textit{dao}, the \textit{ba} construction is also common, V-O- \textit{dao} is almost equally widely used in both spoken and written Chinese. The following uses occur frequently. In such uses, \textit{dao} phrase may be regarded as the second VP in a serial verb construction, expressing another activity.

\begin{itemize}
\item 送书（信，朋友，东西，etc.）到 L \textit{song shu} (xin, pengyou, dongxi, etc.) \textit{dao} L send book (letter, friend, things, etc.) arrive L
\item 坐（开，乘）车（船，飞机，火车）到 L \textit{zuo} (kai, cheng) \textit{che} (chuan, feiji, huoche) \textit{dao} L take (drive, ride) car (boat, plane, train) arrive L
\item 打电话（电报）到 L \textit{da dianhua} (dianbao) \textit{dao} L make phone call (send telegram) arrive L
\item 搬家（东西）到 L \textit{ban jia} (dongxi) \textit{dao} L move house (thing) arrive L
\end{itemize}
It is to be observed (cf. Chapter V) that V-O-zai is retained to a limited degree in certain Southwest Mandarin dialects as preservations from Medieval Chinese. We do not assume that is also the case for V-O-dao since it is still a productive construction as can be seen from the above examples.

3.3.3. Summary

In both static and dynamic situations, zai and dao phrase are very much comparable to each other. The two phrases share the following:

- In both aspectual situations, they occur in all possible positions with the same types of verbs;
- In preverbal position, both accommodate durative, repetitive aspect;
- In postverbal position, both provide a telic aspect which supports the formation of accomplishment aspect.

There are also distinctions between the two phrases. Each has its own special characteristics.

- In preverbal position, dao phrase does not occur with unmovable subject;
- In postverbal position, zai phrase tends to accommodate entities with telic feature while dao phrase accommodates those with atelic feature;
- Postverbal dao phrase occurs with more types of verbs than zai phrase.
3.4 Participants and Location: Subject, Object, and Sentence Positions of Zai/Dao Phrase

In 3.2, the issue of participants and location with regard to positions of zai/dao phrase was touched upon. Participants include the subject and object. In a sentence with a transitive verb, there are the subject, object, and location (the object of zai/dao) indicated by zai/dao. In a sentence with an intransitive verb, there are only the subject and location indicated by zai/dao phrase. In sentences with intransitive verbs the subject is always located in the location indicated by zai/dao phrase. This can be seen in some examples from 3.1.1 and 3.1.2. For instance, in (4a), (6a), and (25a) which has intransitive verbs wan 'play', die 'fall', and diao 'drop', the subject xiao haizi 'small child', ta 'he', and tong 'bucket', are all located in the location indicated by zai/dao phrase:

(4)a. 小孩子在外面玩。
Xiao haizi zai wai-mian wan.
small child at outside play
'The child is playing outside.'

(6)a 他跌在地上。
Ta die zai di-shang.
he fall at ground-LOC
'He fell on the ground.'

(25)a 桶掉到井里了。
Tong diao-dao jing-li le.
bucket drop reach well-LOC PRT
'The bucket dropped into the well.'

Such being the case, only sentences with transitive verbs will be discussed. This section discusses the relationship between participants and location with regard to different sentence positions of zai/dao phrase.
3.4.1. Zai Phrase

The relationship between subject, object and location regarding positions of zai phrase is found to have the following patterns:

i. In the case that zai phrase is allowed to occur in any of the three positions, the subject participant is not necessarily situated in the location indicated by zai phrase, while the object participant is.

ii. In the case that zai phrase is allowed to occur in either sentence initial or preverbal position, there are three possibilities: one is that both subject and object are in the location indicated by zai phrase; another is that neither is in the location indicated by zai phrase; still another is that one of them is and the other is not in the location indicated by zai phrase.

iii. In the case that zai phrase is allowed to occur only in sentence initial position, the object participant is not necessarily in the location denoted by zai phrase, while the subject participant is.

iv. In the case that zai phrase is allowed to occur only in the preverbal position, the subject participant is in or adjacent to the location denoted by zai phrase, while the object participant is not necessarily in that location.

v. In the case that zai phrase is allowed to occur only in postverbal position, the subject participant is not situated in the location denoted by zai phrase, while the object participant is.

The above patterns can be shown in the following table:
Table 1    Location of Participants and Positions of Zai Phrase

<table>
<thead>
<tr>
<th></th>
<th>subject</th>
<th>action</th>
<th>object</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. all positions</td>
<td>not necessarily in</td>
<td>in</td>
<td>in</td>
</tr>
<tr>
<td>2. sentence initial</td>
<td>and</td>
<td>not</td>
<td>not necessarily in</td>
</tr>
<tr>
<td></td>
<td>preverbal</td>
<td>necessarily in</td>
<td>in</td>
</tr>
<tr>
<td>3. sentence initial</td>
<td>only</td>
<td>in</td>
<td>in</td>
</tr>
<tr>
<td>4. preverbal</td>
<td>only</td>
<td>in</td>
<td>not necessarily in</td>
</tr>
<tr>
<td></td>
<td>or adjacent to</td>
<td>in</td>
<td>not necessarily in</td>
</tr>
<tr>
<td>5. postverbal only</td>
<td>not in</td>
<td>in</td>
<td>in</td>
</tr>
</tbody>
</table>

The following examples illustrate the above patterns. Group 1 are sentences allowing zai phrase in all possible positions; Group 2 are those that allow either sentence initial or preverbal zai phrase; Group 3 allows sentence initial zai phrase only; Group 4 preverbal zai phrase only; and Group 5 postverbal zai phrase only.

**Group 1: All Positions**

(91)a 在鐵絲上小王晾了几件衣服。
*Zai tiesi-shang Xiao Wang liang-le ji jian yifu.*
at iron wire-LOC Xiao Wang hang-PRT few CLF clothes

b 小王在鐵絲上晾了几件衣服。
*Xiao Wang zai tiesi-shang liang-le ji jian yifu.*

c 小王晾了几件衣服在鐵絲上。
*Xiao Wang liang-le ji jian yifu zai tiesi-shang.*
'Xiao Wang has hung some clothes on the iron wire.'

(92)a 在黑板上他抄了一首诗。
_Zai heiban-shang ta chao-le yi shou shi._
He copy PRT one CLF poem

b 他在黑板上抄了一首诗。
_Ta zai heiban-shang chao-le yi shou shi._

He copied a poem on the blackboard.'

c 他抄了一首诗在黑板上。
_Ta chao-le yi shou shi zai heiban-shang._

'He copied a poem on the blackboard.'

(93)a 在山上飞机撒了很多树种。
_Zai shan-shang feiji sa-le hen duo shu zhong._
Plane spread PRT many tree seed

b 飞机在山上撒了很多树种。
_Feiji zai shan-shang sa-le hen duo shu zhong._

He copied a poem on the blackboard.'

c 飞机撒了很多树种在山上。
_Feiji sa-le hen duo shu zhong zai shan-shang._

'He copied a poem on the blackboard.'

(94)a 在中国这家公司建了两座工厂。
_Zai Zhongguo zhe jia gongsi zao-le liang zuo gongchang._
Company build PRT two CLF factory

b 這家公司在中国建了两座工厂。
_Zhe jia gongsi zai Zhongguo zao-le liang zuo gongchang._

This company built up two factories in China.

c 這家公司建了两座工厂在中國。
_Zhe jia gongsi zao-le liang zuo gongchang zai Zhongguo._

'This company built up two factories in China.'

In (91), the subject 'Xiao Wang' is not on the iron wire but clothes are. In (92), the subject 'he' may or may not be 'on the blackboard'. It is possible that 'he' stood or sat on the blackboard and copied a poem on it. However, the most probable situation is that he stood by the blackboard and copied the poem on it. In any case, the poem is on the blackboard. In (93), when planes spread tree seeds, it is tree seeds but not planes that are on the
mountains. In (94) the company that built two factories may not necessarily in China (It may be a company outside China that invests the factories.) while the factories built are necessarily in China. In all four examples, object participants need to be in the location indicated by zai phrase.

It can be observed that when zai phrase occurs in any of the three possible positions, while the subject participant may not necessarily in the location indicated by zai phrase, the object participant needs to be in that location.

**Group 2: Sentence Initial and Preverbal Positions**

(95)a 在飛機上，我看見了長江大橋。  
                                  (=56), p.68  
*Zai feiji-shang, wo kanjian-le Changjiang Da Qiao.  
at plane-LOC I see-PRT Changjiang big bridge  
'On the plane, I saw Changjiang Bridge.'*

b 我在飛機上看見了長江大橋。  
*Wo zai feiji-shang kanjian-le Changjiang Da Qiao.  
I at plane-LOC see-PRT Changjiang big bridge  
'I saw Changjiang Bridge on the plane.'*

c 我看見了長江大橋在飛機上  
*wo kanjian-le Changjiang Da Qiao zai feiji-shang*

(96)a 在第三頁上，我刪了兩句話。  
                                  (=57), p.68  
*Zai di san ye-shang, wo shan-le liang ju hua.  
at no. three page-LOC I delete-PRT two sentence words  
'on page three, I deleted two sentences.'*

b 我在第三頁上刪了兩句話。  
*Wo zai di san ye-shang shan-le liang ju hua.  
I at no three page-LOC delete-PRT two sentence words  
'I deleted two sentences on page three.'*

c 我刪了兩句話在第三頁上  
*wo shan-le liang ju hua zai di san ye-shang*

(97)a 在八號車廂里，我找到了小王。  
                                  (=58), p.69  
*Zai ba hao chexiang-li, wo zhaodaole Xiao Wang.  
at eight no. chamber-LOC I find-PRT Xiao Wang  
'in the eighth Chamber, I found Xiao Wang.'*
In (95a/b), 'I' am in the plane, the location indicated by zai phrase, while Changjiang Da Qiao is not. In (96a/b), 'I' am not on 'page three', the location indicated by zai phrase, while 'two sentences' are. In (97a/b), both 'I' and Xiao Wang are located in 'the eighth chamber'. In (98a/b), neither Lao Wang nor 'I' is located in the telephone. The telephone is an equipment or a means of communication rather than the location of the action.

The observation can be made that when zai phrase occurs in either sentence initial or preverbal position, participants of the action may or may not be all in the location indicated by zai phrase.

**Group 3:** Sentence Initial Position Only

(99)a 在這個村子里，家家信佛。
Zai zhe ge cunzi li, jiajia xin fo.
'In this village, every family believes in Buddhism.'
*b. 家家在這個村子里信佛。
   jiajia zai zhe ge cunzi li xin fo.

*c. 家家信佛在這個村子里。
   jiajia xin fo zai zhe ge cunzi li

(100)a. 在首都王府井大街，商店披著節日的盛裝。
   zai shoudu Wangfu-Jing da jie, shangdian pi-zhe jiere-de
   shengzhuang
   at capital Wangfu-Jing street store decorate-PRT festival-PRT
   splendid dress
   'In the capital, stores at Wangfu-Jing Street are colorful
   decorated for the festival.'

*b. 商店在首都王府井大街披著節日的盛裝
   shangdian zai shoudu Wangfu-Jing da jie pi-zhe jiere-de
   shengzhuang

*c. 商店披著節日的盛裝在首都王府井大街
   shangdian pi-zhe jiere-de shengzhuang zai shoudu Wangfu-Jing da jie

(101)a. 在我的書架上，新書都包了封皮。
   Zai wo-de shujia-shang, xin-shu dou bao-le fengpi.
   at my bookshelf-LOC new book all wrap-PRT cover
   'All the new books on my bookshelf are wrapped with covers.'

*b. 新書在我的書架上都包了封皮
   xin-shu zai wo-de shujia-shang dou bao-le fengpi

*c. 新書都包了封皮在我的書架上
   xin-shu dou bao-le fengpi zai wo-de shujia-shang

In (99), the object fo 'Buddhism' cannot be said to be situated 'in this
village, while in (100) and (101), shengzhuang 'splendid dress' and fengpi
'cover' can only be "distantly" or "remotely" in the location indicated by zai
phrase, 'Wangfu jing street in the capital' and 'my bookshelf'. On the other
hand, the subject of all three sentences is in the location indicated by zai
phrase. This is the unique feature for sentence initial zai phrase only case.

In sum, when zai phrase is allowed to occur only in sentence initial
position, the subject participant is necessarily in the location indicated by
zai phrase while the object participant does not need to be so. This feature can be best explained in terms of temporal sequence. Since the focus of the sentence is not to locate the object but rather, the subject, the location and the subject are placed close to each other in word order.

**Group 4: Preverbal Position Only**

(102)a 他在圖書館看書。
* Ta zai tushu guan kan shu.
  *He reads books in the library.'

*b 他看書在圖書館
  zai tushu guan ta kan shu

*c 他在圖書館看書
  ta kan shu zai tushu guan

(103)a 小王在廚房里煮面條。
* Xiao Wang zai chufang-li zhu miangtiao.
  *Xiao Wang cooks noodles in the kitchen.'

*b 小王在廚房里煮面條
  zai chufang-li Xiao Wang zhu miangtiao

*c 小王煮面條在廚房里
  Xiao Wang ba miangtiao zhu zai chufang-li

(104)a 旅客在船上欣賞風景。
* Liüe zai chuan-shang xinshang fengjing.
  *Travellers enjoy the scene on the boat.'

*b 旅客在船上欣賞風景
  zai chuan-shang liüe xinshang fengjing

*c 旅客欣賞風景在船上
  liüe xinshang fengjing zai chuan-shang

(105)a 小李在抽屜里找東西。
* Xiao Li zai chouti-li zhao dongxi.
  *Xiao Li is looking for something in the drawer.'
*b  在抽屉里找东西
    zai chouti-li Xiao Li ba dongxi zhao

*c  小李找东西在抽屉里
    Xiao Li zhao dongxi zai chouti-li

In Group 3, the subject, object, and location indicated by *zai* phrase manifest the following manners: in (102), both subject and object are in the location indicated by *zai* phrase. In (103) the subject is in the kitchen, but the object is actually located in the pot, and only "remotely" located in the kitchen. In (104), the subject is in the location indicated by *zai* phrase but the object is obviously not.

(105) is a complicated case. In general, a drawer cannot physically contain a whole person. In that sense, the subject cannot be in the location, 'the drawer'. However, part of his body, his hands, must be in the drawer, and Xiao Li must be at the drawer. But no such an accurate but strange expression as *Xiao Li de shou zai chouti-li zhao dongxi* 'Xiao Li's hands are looking for something in the drawer' exists in Chinese. (Nor may it in many other languages.) If we say *Xiao Li zai chouti pang zhao dongxi* 'Xiao Li is looking for something at the drawer', the location in which Xiao Li is looking for things changes though the expression is accurate with regard to where Xiao Li's body is. This is a situation in which economy overrides iconicity in linguistic expressions. In such a case the subject is in or adjacent to the location. The object in such a case may or may not be in the location denoted by *zai* phrase.

**Group 5:** Postverbal Position Only
(106)a 他把箭射在靶子上。
   *a
   Ta ba jian she zai bazi-shang.
   he PRT arrow shoot at target-LOC
   'He shot arrows at the target.'

   *b 在靶子上他射箭
   zai bazi-shang ta she jian

   *c 他在靶子上射箭
   ta zai bazi-shang she jian

(107)a 他把手插入口袋里。
   *a
   Ta ba shou cha zai koudai-li.
   he PRT hand insert at pocket-LOC
   'He inserted his hands into his pockets.'

   *b 在口袋里他插手
   zai koudai-li ta cha shou

   *c 他在口袋里插手
   ta zai koudai-li cha shou

(108)a 他把衣服打在背包里。
   *a
   Ta ba yifu da zai beibao -li.
   he PRT clothes pack in knapsack-LOC
   'He packed his clothes in the knapsack.'

   *b 在背包里他打衣服
   zai beibao-li ta da yifu

   *c 他在背包里打衣服
   ta zai beibao-li da yifu

Obviously, in this group, the subject is not in the location indicated by
zai phrase while the object is.

When zai phrase occurs only in postverbal position, the subject
participant is not in the location indicated by zai phrase while the object
participant needs to be in that location.
3.4.2. *Dao* Phrase

*Dao* phrase presents different patterns of locations of participants. The following summary in the inference of locations of participants includes only cases with transitive verbs since with intransitive verbs, the subject is necessarily in the location indicated by sentence initial, preverbal or postverbal *dao*. The pattern that allows the occurrence of both preverbal and postverbal *dao* phrase without changes in meaning is not included since only intransitive verbs are involved in that pattern. Because of its dynamic feature, unlike *zai* phrase, there is no such case that *dao* phrase occurs at any of the possible positions with little change in meaning.

With regard to the inference of location, *dao* phrase exhibits the following patterns:

1. When *dao* phrase is in either sentence initial or preverbal position, the subject is in the location denoted by *dao* phrase but the object needs not be.

2. When *dao* phrase is in postverbal position, the subject is not necessarily in the location denoted by *dao* phrase but the object is.

These can be illustrated in Table 2:

<table>
<thead>
<tr>
<th></th>
<th>Subject</th>
<th>Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentence initial <em>dao</em></td>
<td>in</td>
<td>not necessarily in</td>
</tr>
<tr>
<td>Preverbal <em>dao</em></td>
<td>in</td>
<td>not necessarily in</td>
</tr>
<tr>
<td>Postverbal <em>dao</em></td>
<td>not necessarily in</td>
<td>in</td>
</tr>
</tbody>
</table>
The following examples demonstrate the relations summarized above.

Sentence Initial \textit{dao}

\textbf{Group 1: Both subject and object are in the location denoted by \textit{dao}.}

(109) 到房间里，老王告訴了我。  \hspace{1cm} \textit{Dao fangjian-li, Lao Wang gaosu-le wo.}  
\textquote{arrive room-LOC Lao Wang tell PRT me}  
'Coming into the room, Lao Wang told me.'

(110) 到上海，我考進了大學。  \hspace{1cm} \textit{Dao Shanghai, wo kao jin -le daxue.}  
\textquote{arrive Shanghai I take exam enter PRT college}  
'Arriving in Shanghai, I passed the exam and entered college.'

\textbf{Group 2: Only the subject is in the location denoted by \textit{dao}.}

(111) 到塔頂，我們看見了全城。  \hspace{1cm} \textit{Dao ta ding, women kanjian-le quan cheng.}  
\textquote{arrive tower top we see PRT whole city}  
'Arriving the top of the tower, we saw the whole city'

(112) 到了石家莊，我們離北京就不遠了。  \hspace{1cm} \textit{Dao -le Shi-Jia-Zhuang, women li Beijing jiu bu yuan-le.}  
\textquote{arrive PRT Shi-Jia-Zhuang we leave Beijing just not far PRT}  
'Arriving at Shi-Jia-Zhuang, we are not far from Beijing.'

\textbf{Preverbal \textit{dao}}

\textbf{Group 3: Both subject and object are in the location denoted by \textit{dao}.}

(113) 他到圖書館看書。  \hspace{1cm} \textit{Ta dao tushu guan kan shu.}  
\textquote{he go to library read book}  
'He went to the library to read.'

(114) 二小到學校打電話。  \hspace{1cm} \textit{Er Xiao dao xuexiao da dianhua.}  
\textquote{Er Xiao arrive school make phone call}  
'Er Xiao went to school to make phone calls.'
Group 4: Only the subject is in the location denoted by *dao*.

(115) 旅客紛紛到船上欣賞風景。
*Lüè fenfen dao chuān-shāng xīnshāng fēngjīng.*
'traveler all arrive boat -LOC enjoy scene'
'Travellers all went to the boat to enjoy the scene.'

(116) 大家分頭到各處去找丟失的小孩。
*Dàjiā fēn tou dao ge chu qu zhāo shíluò-de xiao hai.*
'we all separately arrive everywhere go look for lost PRT child'
'All of us separately went everywhere to look for the lost child.'

Postverbal *dao*

Group 5: Both subject and object are in the location denoted by *dao*.

(117) 火車把他帶到了這個南方小鎮。
*Huōche ba ta dài dao le zhe ge nán fāng xiǎo zhèn.*
'train PRT him bring arrive PRT this CLF south small town'
The train brought him to this small town in the south.'

(118) 你陪病人到醫院檢查一下。
*Nǐ péi bìng rén dao yīyuàn jiǎnchá yī xià.*
'you accompany patient arrive hospital check one CLF'
'You accompany the patient to the hospital to have a check.'

Group 6: Only the object is in the location directed by *dao*.

(119) 他把手插到口袋里。
*Tā ba shǒu chā dao kǒùdài-li.*
'he PRT hand insert reach pocket-LOC'
'He put his hand in his pocket.'

(120) 我們把介詞移到動詞後邊。
*Wǒmen ba jiēcí yì-dao dòngcí hòubian.*
'we PRT preposition move reach verb back side'
'We move the preposition behind the verb.'

(121) 他寄了兩包種到農場。
*Tā ji -le liàng bāo zhòng dao nóngchǎng.*
'he send PRT two CLF tree seed arrive farm'
'He sent two packages of tree seeds to the farm.'

The difference between *zai* and *dao* phrase in location inference can now be observed. Preverbal *zai* does not necessarily locate the subject in the
place indicated by \textit{zai} while preverbal \textit{dao} certainly locates the subject to the location denoted by \textit{dao} phrase. On the other hand, postverbal \textit{dao} and \textit{zai} show no difference with regard to their inference of location for both subject and object. This further supports our observation about verbal semantic features of \textit{dao} and \textit{zai}. With dynamic verbal characteristics, \textit{dao} is capable of bringing any participant of the action to its denoted location. Verb arguments have a closer or more direct semantic relation with \textit{dao} than with \textit{zai}.

Examples can easily be found to illustrate this difference. For instance, in (122a) and (122b),

(122)a  小王到厨房里煮面条。  
\textit{Xiao Wang dao} \textit{chufang-li zhu miantiao.}  
'Xiao Wang went to the kitchen to cook noodles.'

(122)b  小王在厨房里煮面条。  
\textit{Xiao Wang zai chufang-li zhu miantiao.}  
'Xiao Wang is cooking noodles in the kitchen.'

except meaning differences caused by \textit{zai} and \textit{dao} as we have discussed, both sentences are acceptable. However, if we change \textit{chufang} 'kitchen' to \textit{guo} 'pot',

(123)*a'  小王到锅里煮面条。  
\textit{Xiao Wang dao guo-li zhu miantiao.}  

(123)*b'  小王在锅里煮面条。  
\textit{Xiao Wang zai guo-li zhu miantiao.}  
'Xiao Wang cook noodles in the pot.'
the sentence with *dao* becomes unacceptable. Similarly, both (124a) and (124b) are good:

(124)a  
*Lao Wang dao fangjian-li gaosu-le wo.*  
Lao Wang arrive room-LOC tell PRT me  
'Lao Wang came into the room and told me.'

b  
*Lao Wang zai fangjian-li gaosu-le wo.*  
Lao Wang at room-LOC tell PRT me  
'Lao Wang told me in the room.'

but (125a) with *dao* is not acceptable.

(125)*a  
*Lao Wang dao dianhua-li gaosu-le wo.*  
Lao Wang at telephone-LOC tell PRT me  
'Lao Wang told me on the phone.'

This may seem like a pragmatic issue, but it is clearly predicated on the semantic features of *dao*. Our examples reveal that in general, an argument's physical presence is obligatory with *dao* phrase, which is obviously due to the meaning of *dao*. In other words, preverbal *zai* phrase is more like a prepositional phrase than preverbal *dao* phrase, which is more of a first part of a serial verb structure.

### 3.5 Verb Types Relating to Gei Phrase

Many Chinese linguists (Hu, 1960; Zhu, 1979; Peyraube, 1984; Li, 1986; Shen, 1992) adopt the categorization of three types of verbs in regard to
the ditransitive construction. The three types are: (1) verbs of giving; (2) verbs of taking; and (3) verbs of non-giving or non-taking. In Chinese, there is one more type of verb, i.e., verbs of giving and taking (Cf. Zhu, 1979).

This classification is for verbs associated with ditransitive construction. The property of giving or taking reflects the relationship between the subject and the indirect object connected by the verb. 'Giving' and 'taking' refer to the action by the subject toward the indirect object, for example, a verb of taking such as *mai* 'buy' entails one entity (usually the subject) taking or getting something from another entity (usually the indirect object) while a verb of giving such as *song* 'give as a present' entails one entity (usually the subject) giving or losing something to another entity (usually the indirect object). (126) and (127) are examples of this case.

(126) 我買他兩個瓜。
*Wo mai ta liang ge gua.*
'I bought two mellons from him.'

(127) 我送他兩個瓜。
*Wo song ta liang ge gua.*
'I gave him two mellons as a present.'

I follow this classification of verbs associated with the *gei* construction since it is one of the important dative expressions in Chinese. However, there are a few areas in which the *gei* construction differs from other dative constructions. First, besides its function of marking the goal in dative construction, *gei* phrase also has the semantic function of marking the benefactive in preverbal position. This function holds good for most

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8 *Song* as a verb of giving has another meaning, 'to deliver.'
verbs. Second, because gei itself has the meaning of 'give', when used with verbs of taking, the relationship between the subject and indirect object changes: the entity from which something is taken is not the indirect object but another source that may not be identified in the sentence. Using (126) above with gei phrase, the meaning is different in (128):

(128)a  我買兩個瓜給他。
Wo mai liang ge  gua  gei ta.
'I buy two CLF mellon give he
'I buy two mellons to give to him.'

b  我給他買兩個瓜。
Wo gei ta  mai liang ge  gua  .
'I give he buy two CLF mellon
'I buy two mellons for him.'

The indirect object ta 'him' becomes the receiver or benefactive. The subject wo 'I' is still the giver. The source where the two mellons come from is not identified in the sentence.

My discussion here will concentrate on the verbs that are associated with gei, and especially describe their occurrence restrictions with regard to the sentence position of gei phrase. The following are examples of the above mentioned verb types. The capitalized letters indicate the sub-category of each verb type with regard to their occurrences with gei phrase. Each type of verb may have one or more than one sub-category according to their co-occurrence with gei phrase in different positions.

Type A verbs occur with preverbal and postverbal gei phrase; and with preverbal gei phrase, there are both 'for' and 'to' readings, i.e., there is ambiguity in the sentence. Examples in Pattern 5 (p. 66) in 3.1.3 have this type of verb.
Type B verbs occur with preverbal *gei* phrase and postverbal *gei* phrase following the direct object, i.e., O-*gei*. With preverbal *gei* phrase, there is ambiguity. Sentences in Pattern 2 (pp. 63-64) in 3.1.3 have this type of verbs.

Type C verbs occur with preverbal and postverbal *gei* phrase. With preverbal *gei* phrase, there is only the 'for' reading. No ambiguity exists. Examples of this type of verbs are shown in Pattern 4 (pp. 65-66) in 3.1.3.

Type D verbs and Type E verbs occur only with preverbal *gei* phrase. With type D verbs only the 'for' reading is possible while with type E verbs either 'for' or 'to' reading is possible. So there is ambiguity. Examples of these two types of verbs are in Pattern 1 (pp. 62-63) in 3.1.3.

Type F verbs occur with preverbal and postverbal *gei* phrase. With preverbal *gei* phrase, there is only the 'to' reading. Sentences in Pattern 3 (pp. 64-65) in 3.1.3 have this type of verbs.

The following discussion is under the categorization of verb types according to their giving / taking properties, including examples of each type and their subcategorize.

**Verbs of giving**

Verbs of giving contain a common semantic component, 'to give', regardless of the presence or absence of *gei*. *Gei* as a verb is naturally a verb of giving. Other verbs of giving include:

- **A.**  
  - *ji* 寄 'send'  
  - *fa* 發 'distribute'  
  - *juanxian* 捐獻 'donate'  
  - *song* 送 'deliver/give'  
  - *reng* 扔 'throw'  
  - *fenpei* 分配 'distribute'


The relation between a verb of giving and the subject, indirect object, and direct object can be described as: the subject is the giver; the indirect object is the receiver; the direct object is the substance that is transferred from the subject/giver to the indirect object/receiver through the activity (expressed by the verb) of the subject. So for the direct object, there is a movement from one location to another location involved—from the subject to the indirect object. The subject in many cases is also the source of the substance given to the indirect object. Since the indirect object is where the giving-out thing is targeted, it can be regarded as a goal. This relationship can be seen from (50c) in Pattern 4 (p. 65) of *gei* in 3.1.3:

(50)c  老板賣了三本書給他。
\[ Laoban \ mai-le \ san \ ben \ shu \ gei \ ta. \]
shopkeeper sell PRT three CLF book give him
'The shopkeeper sold three books to him.'

In the sentence, *Laoban* 'Shopkeeper', the seller, is the giver as well as source of *san ben shu* 'three books' which are transferred through the selling activity to *ta* 'him', the customer.
Gei co-occurs with all verbs of giving except the verb gei 'give' itself. But because of the inherent 'giving' property, many of these verbs can take indirect object without gei. Sentence (121) above, wo mai ta liang ge gua, 'I sold him two mellons' is an example.

Verbs of taking

Semantically, verbs of taking are counterparts of verbs of giving. They have the semantic component of 'getting from'. Frequently occurring verbs of taking include:

B. mai 買 'buy'    tou 偷 'steal'
shou 收 'gather'   qiang 抢 'robber'
zhuan 賺 'gain'     yao 要 'want'

With gei phrase, verbs of taking endow the subject with two roles. One is as a gainer, which takes something, the direct object, from another source not identified in the sentence. The other role is as a giver, which gives the thing taken from another source to the receiver, the indirect object. At the same time, the subject of verbs of taking is not a source, which is different from the subject of verbs of giving. In sentences with verbs of

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9 Chao (1968: 331-332) states:

It is quite possible to have the three uses of gei : (a) 'give', (b) 'taking hold of' or 'by', and (c) 'to someone's benefit (or harm)' occurring in the same sentence. For instance, Zhe dongxi wo jiao ta bie gei ren. Donxi na qu le? -- Ta gei ta gei gei le. 'I told hime not to give this thing away, but where is the thing now?...' after which the answer containing gei three times can still have two alternative analyses: (1) 'He took it and, to someone's benefit (or harm), gave it away.'; (2) 'It was by him, to someone's benefit (or harm), given away.'

In the footnote Chao indicates such a case occurs not only in some dialects, but also in Beijing Mandarin given the context he provides.
taking, there is also a process of transferring a substance from the subject to the indirect object. The indirect object is still the goal. But *gei* phrase is not allowed to occur immediately following the verb. This restriction presents a clear contrast with verbs of 'giving' which allow the *gei* phrase to immediately follow the verb. It seems that since the subject is not a source itself, in order to give something to the receiver, it needs to get something from elsewhere first, then give it to the receiver. Therefore, *gei* phrase must follow the direct object, the thing gotten by the subject, in the postverbal position.

(128a/b) above are example of this verb type with *gei* phrase in preverbal and postverbal O-*gei* position. Sentence (47c) in Pattern 2 in 3.1.3 is not acceptable because postverbal *Gei-O* position is not allowed with this type of verb:

(47)*c
他買給老人了三幅畫
Ta mai gei lao-ren le san fu hua

**Verbs of non-giving or non-taking**

Verbs of non-giving or non-taking do not have an inherent semantic component of 'giving' or 'taking'. To take two objects, they must have *gei* to connect with the indirect object. This type of verb belong to an open class. Here are some examples:

A. *xie* 笔 'write'  *duan* 端 'hold'
   *dai* 帶 'bring'  *na* 拿 'hold, carry'

B. *chao* 炒 'fry'  *da* 打 'knit'
   *ke* 刻 'engrave'  *zhao* 找 'look for'
D. chang 唱 'sing'  kan 看 'take care of'
   xi 洗 'wash' wen 問 'ask'
   jiancha 檢查 'examine' jieshi 解釋 'explain'
E. chi 吃 'eat' he 喝 'drink'
   yong 用 'use' chuan 穿 'wear'
F. liu 留 'leave' tiao 挑 'select'
   jia 加 'add' yao 叉 'ladle'
   zhua 抓 'grasp'

Sentences in Pattern 1, Pattern 3, and (46) in Pattern 2 in 3.1.3 are examples with verbs of non-giving or non-taking. Here are the three re-listed from each of the three patterns:

(42)a 醫生給他檢查身體。
   Yisheng gei ta jiancha shenti.
   'The doctor gave him a physical examination.'

(46)a 趙師傅給他炒了一盤肉。
   Zhao Shifu gei ta chao-le yi pan rou.
   'Master Zhao cooked him a plate of fried meat.'
or: 'Master Zhao cooked a plate of fried meat for him.'

b 趙師傅炒了一盤肉給他。
   Zhao Shifu chao-le yi pan rou gei ta.
   'Master Zhao cooked him a plate of fried meat.'

(48)a 房東給他留了一把鑰匙。
   Fangdong gei ta liu -le yi ba yaoshi.
   'The landlord left him a key.'

b 房東留給了他一把鑰匙。
   Fangdong liu gei -le ta yi ba yaoshi.
   'The landlord gave him a key.'
Verbs of giving and taking

In Chinese, there is another type of verb, i.e., verbs that contain the semantic components of both 'giving' and 'taking'. The presence or absence of gei affects the prominence of the 'giving' or 'taking' component. There are not many verbs of this type, but they are frequently used.

A. jie  'borrow; lend'
    fen  'share'
    zu  'rent; lease'
    huan  'change'

For example,

(129) 小李借我一本书。
    Xiao Li jie wo yi ben shu.
    Xiao Li lend / borrow me one CLF book

without gei, the sentence can mean either 'Xiao Li lent me a book' or 'Xiao Li borrowed a book from me.'

But with postverbal gei, 'Xiao Li lent me a book' is the only reading.

(130)a 小李借给我一本书。
    Xiao Li jie gei wo yi ben shu.
    Xiao Li lend give me one CLF book

b 小李借了一本书給我。
    Xiao Li jie -le yi ben shu gei wo.
    Xiao Li lend PRT one CLF book give me

If gei phrase is in preverbal position,

(130)c 小李給我借了一本書。
    Xiao Li gei wo jie -le yi ben shu.
    Xiao Li give me borrow PRT one CLF book
then the sentence means 'Xiao Li borrowed a book for me.'

The relationship between sentence position of gei phrase and different types of verbs, including the semantic functions of gei phrase, can be illuminated in the following table.

<table>
<thead>
<tr>
<th>Table 3</th>
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It can be seen from the table that

10 Zhu (1985: 160) argues that there are three possible readings in such a sentence with preverbal gei:

a. (I' am a librarian) Xiao Li check out a book for me to a customer.

b. Xiao Li borrowed a book from other people for me.

c. Xiao Li borrowed a book from other people to give to me.

The first situation is not very common. The next two have slight difference which lies in whether 'me' asked 'Xiao Li' to borrow a book for me from others, or 'Xiao Li' did it without my request. However, the results are the same: I have a book borrowed by Xiao Li.
i. In preverbal position, all the four types of verbs occur with *gei* phrase marking the benefactive. Among them Type C verbs in verbs of giving and Type D verbs in verbs of non-giving or non-taking only mark the benefactive. Type F in verbs of non-giving or non-taking only mark the goal.

An important difference between benefactive and goal lies in that there is no transaction of things from the subject to the indirect object involved when *gei* marks the benefactive. As discussed in 3.2, *gei* in Chinese has two semantic components: 'to' and 'for'. It is preverbal *gei* that has the function of marking the benefactive. When this is the case, the semantic component 'to' is absent and the other one, 'for', becomes prominent. Either of the two components 'to' and 'for' in *gei* may become prominent, primarily on the basis of the verb property which determines whether there is an action of receiving a substance by the indirect object or not.

Type D verbs in verbs of non-giving or non-taking have no 'to' semantic component but pure 'for', and there is no action of the indirect object receiving things involved. Consider the following examples:

(131) 劉三姐又給大家唱了一首歌。
*Liu San Jie you gei dajia chang-le yi shou ge.*
'Liu San Jie again for all sing PRT one CLF song'
'Lisa San Jie sang another song for all of us.'

(132) 護士給他洗衣服。
*Hushi gei ta xi yifu.*
'nurse for him wash clothes'
'The nurse washed clothes for him.'

The activities expressed by the two verbs *chang* 'sing' and *xi* 'wash' are an entertainment or performance and a service which do not involve
transaction of a substance. The direct object ge 'song' and yifu 'clothes' do not change their locations after the activities. The features of the two verbs select the 'for' component in gei. Therefore in these two sentences gei can only be a benefactive marker. Sentence (42) and (43) in Pattern 1 in 3.1.3 also represent this case.

Type C verbs in verbs of giving have the semantic component of 'giving'. However, with preverbal gei, the receiver is not the indirect object but a third party that is not specified in the sentence. In such a situation, these verbs lose their 'giving' reading to the indirect object which is not the goal. Gei phrase necessarily marks the benefactive. This can be seen from sentences (50a) and (52a) in Pattern 4 in 3.1.3 re-listed here for convenience.

(50)a 老板給他賣了三本書。
    Laoban gei ta mai-le san ben shu.
    shopkeeper give him sell PRT three CLF book
    'The shopkeeper sold three books for him.'

(52)a 爸爸給兒子付房租。
    Baba gei erzi fa fangzu.
    father give son pay rent
    'Father pays the rent for his son.'

ii. Most verbs occurring with preverbal gei phrase present both 'for' and 'to' meanings, which creates two readings or ambiguity for the sentence, and therefore gei may mark either the benefactive or the goal. The reason for the double-role phenomenon is that there are two possibilities: one is the possibility of type C verbs, i.e., the receiver is not the indirect object (but the third party that is not specified) therefore it can only be the benefactive. The other possibility is that the indirect object is involved in the action of receiving something, and being the receiver it therefore is
the goal. Although of course receiving something is in general beneficial for the receiver. The difference between the benefactive and the goal lies in whether there is an action of substance giving and receiving involved. The following examples show the two possibilities of preverbal gei with verbs other than type B in verbs of giving and type C.

(133) 奶奶給她打毛衣。
Niania gei ta da mao-yi.
'Grandma knitted her a sweater.'
or: 'Grandma knitted a sweater for her.'

There are two possible readings in (133). One reading is that the sweater that Grandma knitted is to give to her. The other reading is that Grandma did the knitting for her and the sweater knitted is for someone else.

The ambiguity in this sentence also relates to the verb feature of da 'knit'. Unlike verbs such as chang and xi, the verb da creates or produces something which can be given to or done for someone. In such a case, the verb triggers both semantic components of gei and ambiguity occurs.

One thing worth mentioning about Type E in verbs of non-giving or non-taking. Consider (44) and (45) in Pattern 1 in 3.1.3:

(44)a 他給我喝了一杯酒。
Ta gei wo he -le yi bei jiu.
'He gave me a cup of wine to drink.'
or: 'He drank a cup of wine for me.'

(45)a 老陳給他看了一篇文章。
Lao Chen gei ta kan-le yi pian wenzhang.
'Lao Chen gave him an article to read.'
or: 'Lao Chen proofread an article for him.'

In the two sentences, in the 'goal' reading, the indirect object is at the same time the subject of the verb following gei phrase. In (44), it is wo 'me' not ta 'he' who drank the wine. In (45), it is ta 'him' not Lao Chen who read the article. This is different from all other types of sentences with gei phrase. In other sentences, the indirect object does not have the dual function. This case of (44) and (45) belongs to the so-called pivotal construction and we will not offer further discussion in this study.

Type F in verbs of non-giving or non-taking does not present 'serving' or 'for' meaning with preverbal gei phrase. In other words, the 'for' component becomes absent in this situation. Instead, these verbs manifest a kind of matter-of-fact-giving connotation, which biases the semantic component of gei to 'to' instead of 'for'. Usually it is necessarily the case that the indirect object's action of receiving something is involved with these verbs. We touched upon this point in 3.2. Sentences in Pattern 3 in 3.1.3 are examples of this case.

iii. With postverbal gei phrase all types of verb can co-occur except type D and E in verbs of non-giving or non-taking.

GeiO position has more restrictions, as mentioned under verbs of taking. Type B in verbs of taking cannot occur with gei phrase preceding the direct object, likewise with are type B in verbs of non-giving or non-taking. (46c) and (47c) are unacceptable:

(46)*c 趙師傅炒給他了一盤肉
Zhao Shifu chao gei ta le yi pan rou
(47)*c  他買給老人了三幅畫
Ta mai gei lao ren le san fu hua

(46*c) and (47*c) represent type B in verbs of non-giving or non-taking, and verbs of taking respectively. It seems for B verbs in these two types, it takes some time before the subject can get something (the direct object) ready to give to the indirect object: verbs of taking are not the source of substances to give themselves; verbs of non-giving or non-taking indicate a process of making things to give. In terms of the temporal sequence, it is logical for them not to be immediately followed by gei phrase, but by the direct object.
CHAPTER IV

Word Order of Zai, Dao, and Gei Phrases

4.0 Information Structure and Sentences with Zai, Dao, and Gei Phrases

As discussed in Chapter II, the exchange of information in human communication is achieved through information structure. Information structure is both functional and formative, i.e., it contains two phases: human concepts and linguistic expressions. The two phases map with each other. Their mapping relationship is the concern of the present chapter.

To reveal this relationship, my analyses in this chapter include: the association between word order of zai, dao and gei phrases, and order motivation, as well as the motivation of conceptual distance; word order of zai, dao and gei phrases relating to the erosion of iconicity; and word order of zai, dao and gei phrases with regard to markedness. These analyses are based on my description about zai, dao and gei phrases in Chapter III with respect to their distribution patterns, semantic functions, and aspectual situations and verb arguments they are associated with. I will start with the relation between order motivation and semantic functions of zai, dao, and gei phrases.
4.1 Order Motivation and Semantic Functions of Zai / Dao / Gei Phrase

Haiman (1980: 528) mentions Greenberg's (1966: 103) observation that "the order of elements in language parallels that in physical experience or the order of knowledge." This cross-language observation meets well the situation in Chinese. Tai (1993:159) later proposes the order motivation which states this important relationship between our conceptual world and word order in Chinese. It has been quoted in 2.2.1; it is:

(4) The order of linguistic expressions corresponds to their order in the conceptual world.

The two order motivation principles in regard to Chinese word order are the Principle of Temporal Sequence and the Principle of Whole-before-Part in Space. The former is a schema of time and word order. The latter represents the container-contained relationship in word order.

4.1.1 Principle of Temporal Sequence

The Principle of Temporal Sequence (PTS) provides a good explanation for the relationship between semantic functions of zai, dao, and gei phrase and their preverbal and postverbal position in a sentence.

In his discussion about PTS and adverbial placement, Tai (1985: 54, 57-58) shows the meaning contrast induced by different order, i.e., preverbal and postverbal position, of the zai / dao phrase, among other constructions. Since the semantic function of a preverbal zai / dao phrase is
to indicate the location where an action takes place while a postverbal zai / dao phrase is to indicate the location of a participant as the result of an action, the temporal sequence of the verb and the locative phrase must be different with preverbal and postverbal zai / dao phrase.

In Chapter 3, sentence (7), (8), (34), (35) and (36) show such a contrast. (8) and (35) are re-listed here as examples.

(8)a. 小孩子在床上跳。  
Xiao haizi zai chuang-shang tiao.  
little child at  bed  -LOC  jump  
'The little child was jumping on the bed.'

b. 小孩子跳在床上。  
Xiao haizi tiao zai chuang shang.  
little child jump at  bed  -LOC  
'The little child jumped to the bed.'

(35)a 我到太湖划船。  
Wo dao Taihu hua chuan.  
I arrive Tai Lake row boat  
'I went to Lake Tai to row a boat.'

b 我划船到太湖。  
Wo hua chuan dao Taihu.  
I row boat arrive Tai Lake  
'I rowed a boat to Lake Tai.'

Since the functions of the locative phrases 'on the bed' in (8a) and 'went to Lake Tai' in (35a) are to indicate the location where the action 'jump' and 'row a boat' took place respectively, the locative phrases must occur before the verb. In terms of temporal sequence, the state of 'on the bed' in (8a) and 'went to Lake Tai' in (35a) precede the state of 'jump' and 'row a boat' respectively. In contrast, in (8b) and (35b), 'on the bed' and 'to Lake Tai' indicate locations where the action 'jump' and 'row a boat' and
participants 'the little child' and 'I' reached. The locative phrase must occur after the verb. The order of the state in (8b) and (35b) is just the reverse of (8a) and (35a), i.e., the state of 'on the bed' and 'went to Lake Tai' follow the state of 'jump' and 'row a boat' respectively. The word order of the above examples are in accordance with PTS.

PTS also accounts for unacceptable orders of *zai/dao* in sentences such as (b) and (c) in (3), (4), (5), (6), and (19) to (33) in Chapter 3. Take (3), (6), (23), and (33) for example.

(3)a 他在教室里看書。
    *Ta zai jiaoshi-li *kan shu.
    'He is in the classroom reading.'

*b* 他看書在教室里
    ta kan shu zai jiaoshi-li

*c* 在教室里他看書
    zai jiaoshi-li ta kan shu

(6)a 他跌在地上。
    *Ta die zai di-shang.
    'He fell on the ground.'

*b* 他在地上跌
    ta zai di-shang die

*c* 在地上他跌
    zai di-shang ta die

(23)a 小李到意大利學音樂。
    *Xiao Li dao Yidali xue yinyue.*
    'Xiao Li went to Italy to study music.'

*b* 小李學音樂到意大利
    Xiao Li xue yinyue dao Yidali

*c* 到意大利小李學音樂
    dao Yidali Xiao Li xue yinyue
(33)a  我们把介词移到动词后边。
Women ba  jiecì   yi-dao  dongci houbian.
We move the preposition behind the verb.

*b 我们到动词后边把介词移
women dao  dongci houbian ba  jiecì yi

c 到动词后边我们把介词移
dao  dongci houbian women ba  jiecì yi

The reason for (3b) and (23c) sentences become unacceptable is their violation of temporal sequence. In these two sentences, the general situation is that the activities of 'read' and 'study music' must take place after 'he' is 'in the classroom' and 'Xiao Li' 'went to Italy' but not vice versa. Thus zai / dao phrase occurs only in preverbal position. Similarly, in sentence (6) and (33), the activities of 'fell' and 'move' precede the state of 'on the ground' and 'behind the verb' which are the results of the activities. Results following activities are the natural sequence. Therefore the word order must be zai / dao phrase follows the verb. Again, the violation of PTS in (6b) and (33c), in which results are put before activities, makes them unacceptable.

Sentence (3c), (6c), (23b) and (33b) are unacceptable because of another reason, which will be discussed shortly.

Now consider sentences with gei phrase. The semantic function of the preverbal gei phrase is to mark either a benefactive or a goal while the postverbal one is to mark the goal.

The word order of the benefactive marker gei being preverbal and the goal marker gei being postverbal is in accordance with PTS. In reality, to
serve someone, or to do a favor for someone, one must have the beneficiary in mind first, then take actions for their benefit. This kind of temporal order provides a motivation for the benefactive marker *gei* to be in preverbal position. On the other hand, when someone wants to give something to other people, he should have the thing first before he can give it to the receiver. Thus the goal marker *gei* is motivated to occur after the verb. Sentence (42), (43), and (50) to (52) in Chapter 3 show the contrast in word order and semantic functions. Take (42) and (52) for example.

(42)a 醫生給他檢查身體。
*Yisheng gei ta jiancha shenti.*
'doctor give him examine body
'The doctor gave him a physical examination.'

*\( \text{Yisheng jiancha gei ta shenti} \)

*\( \text{Yisheng jiancha shenti gei ta} \)

(52)a 爸爸給兒子付了房租。
*Baba gei erzi fu -le fangzu.*
'father give son pay PRT rent
'Father paid the rent for his son.'

b 爸爸付給了兒子房租。
*Baba fu gei -le erzi fangzu.*
'father pay give PRT son rent
'Father paid his son the rent.'

c 爸爸付了房租給兒子。
*Baba fu -le fangzu gei erzi.*
'father pay PRT rent give son
'Father paid the rent to his son.'

In sentence (42a) and (52a), *gei* phrase denotes the benefactive 'he' and 'the son', and thus precedes the verb. The activity 'physical examination' and 'paid the rent' are for the benefit of 'he' and 'the son',
and thus follow the *gei* phrase. Postverbal *gei* phrase is not allowed in (42) because there is no substance giving and receiving activity involved. *Gei* has no goal to mark. On the other hand, (52b) and (52c) are acceptable and express the meaning different from (52a): 'the son' is the goal who got the rent from his father. In (52b) and (52c) *gei* phrase is in postverbal position and marks the goal, 'the son'.

### 4.1.2 From Whole-before-Part to Temporal Scope

While the Principle of Temporal Sequence accounts for the word order contrast between the preverbal and postverbal *zai dao gei* phrase, the Principle of Whole-Part or Container-Contained explains the relationship between the sentence initial *zai dao* phrase and other units of a sentence.

As discussed in Chapter III, the semantic function of sentence initial *zai dao* phrase is to provide a location or existential background to the whole sentence including the subject(s) and the predicate(s) that follow it. This function is in conformity with the Whole-before-Part or Container-Contained principle. The location indicated by sentence initial *zai dao* phrase represents the 'whole' or the 'container', other parts that follow it represent the 'part' or the 'contained', which fall into the scope of the location indicated by *zai dao* phrase. This is the case of (1a), (2a), (16a), (18a), and (39a) in 3.1.1 and 3.1.2. Here I re-list (1a) and (16a) for example.

(1a. 在首都王府井大街，商店披著節日的盛裝。
*zai shoudu Wangfu-Jing da jie, shangdian pi-zhe jieri-de shengzhuang*  
at capital Wangfu-Jing street store decorate-PRT festival-PRT splendid dress
'In the capital, stores at Wangfu-Jing Street are splendidly decorated for the festival occasion.'

(16)a 到那里，學校也很多。
Dao nali, xuexiao ye hen duo.
'Going there, there are also many schools.'

In (1a) and (16a), Shoudi Wangfu-Jing Da Jie' Wang-fu Jing Street in the capital' and nali 'there' are locations for the subjects shangdian 'stores' and xuexiao 'schools'. The predicate pi-zhe jieri-de shengzhuang 'colorful decorated for the festival' and ye hen duo 'also are many' are within the two locations respectively. Thus the word order is Wangfu-Jing Da Jie -- shangdian and nali-- xuexiao. 'Stores' and 'schools' being parts of 'Wang-fu Jing Street' and 'there' respectively, are the contained in the container-contained relationship. Similar cases can also be seen in the following examples, in which cunzi 'village' contains jiajia 'household,' nusheng sushe 'female dormitory' contains qiang 'wall,' meiguo hen duo zhou 'many states in America' contain zhongxue 'middle school':

(1) 在村子里，家家門口都挂著紅燈。
Zai cunzi-loc, jiajia menkou dou gua-zhe hong deng.
'In the village, every house hangs red lanterns at the door.'

(2) 在女生宿舍，滿牆貼的都是花木的圖畫。
Zai nusheng sushe, man qiang tie-de dou shi hua mu de tuhua.
'In the female dormitory, walls are pasted with pictures of flowers and trees.'

(3) 在美國很多州，中學也開設了中文課。
Zai Meiguo hen duo zhou, zhongxue ye kaishe-le zhongwen ke.
'In many states in the U.S., middle schools also offer Chinese.'
Note that in the above examples the Whole-before-Part or Container-Contained principle alone may account for the word order relations between *zai* / *dao* phrase and other sentence units. This usually seems to be the case when *zai* / *dao* phrase is allowed to occur only in sentence initial position.

In some other situations, Whole-Part relation may involve temporal scope. As discussed in Chapter II, in such a situation, temporal sequence obeys the Whole-before-Part principle and therefore the Principle of Temporal Scope (Tai, 1985). Consider the following examples,

(4a) \(zai\):
\[
\text{Danshengzhi, Lao Wang gaozhe wu.} \\
\text{arrive room-LOC Lao Wang tell PRT me}
\]
\(dao\):
\[
'\text{Coming into the room, Lao Wang told me.}'
\]

(5a) \(zai\):
\[
\text{Zai Dao Shanghai, wo kao jin-le daxue, ta canjia-gongzuo.} \\
\text{at/arrive Shanghai I take exam enter PRT college he join PRT job}
\]
\(dao\):
\[
'\text{Going to Shanghai, I entered the college and he got a job.}'
\]

(6a) \(zai\):
\[
\text{Zai Dao Meiguo, wo nian shu, wo taitai zai jia dai haizi.} \\
\text{at/arrive America I study my wife at home take care of child}
\]
\(dao\):
\[
'\text{Coming to America, I study and my wife takes care of our child at home.'}
\]

In these examples, the locations indicated by *zai* / *dao* phrase as a container, defines the spatial scope in which participants and actions are "contained". At the same time, *zai* / *dao* phrase being in sentence initial position and other units following it reflect temporal sequence: existence of
the location precedes actions and participants of actions in that location. Thus, in (4a), both 'Lao Wang' and 'I', and Lao Wang's telling me (something), were in the room which is at the first ordering; in (5a) both 'I' and 'he', and 'entered the college' and 'got a job', are in and follow 'Shanghai'; and in (6a) both 'I' and 'my wife', 'study' and 'take care of our child' are in and follow 'America'.

Comparing with counter examples of these sentences with preverbal \textit{zai} / \textit{dao} phrase, we can have a clearer picture of PTS, Whole-Part, and PTSC.

(4)b

\begin{quote}
Lao Wang \textit{dao} fangjian-li \textit{gaosu-le wo}.
\end{quote}

\begin{quote}
zai: 'Lao Wang told me in the room.'
dao: 'Lao Wang came into the room and told me.'
\end{quote}

(5)b

\begin{quote}
Wo \textit{zai}/\textit{dao} Shanghai \textit{kaojin-le daxue, ta canjia-le gongzuo}.
\end{quote}

\begin{quote}
zai: 'I entered the college in Shanghai and he got a job.'
dao: 'I went to Shanghai to enter the college, and he got a job.'
\end{quote}

(6)b

\begin{quote}
Wo \textit{zai}/\textit{dao} Meiguo \textit{nianshu}, wo \textit{taitai zai jia dai haizi}.
\end{quote}

\begin{quote}
zai: 'I studied in America and my wife took care of our child at home.'
dao: 'I went to American to study and my wife took care of our child at home.'
\end{quote}

In terms of temporal sequence, both sentence initial and preverbal \textit{zai}/\textit{dao} phrase precede the verb. The difference between the sentence initial and preverbal \textit{zai}/\textit{dao} phrase mainly lies in scope. The sentence initial
zai/dao phrase modifies an NP+VP while preverbal zai/dao phrase modifies a VP. It is possible for sentence initial zai/dao phrase to modify more than one NP+VP construction and semantically to be the location for more than one 'action' while it is impossible for preverbal zai/dao phrase to do so (Cf. S, 1981:80-81).

In (5a), both actions, 'I entered college' and 'he got a job', happened in Shanghai. In (5b), the first one happened in Shanghai but the second one did not necessarily because the preverbal zai phrase modifies only the VP kao jin-le daxue 'I entered the college' and 'he got a job' is out of the modifying scope. Similarly, in (6a), the sentence initial zai/dao phrase modifies two actions 'I study' and 'my wife takes care of our child at home' taking place 'in America'. On the other hand, in (6b), preverbal zai/dao phrase only sets the location for the action immediately following zai/dao. Zai/dao phrase covers only 'I study' but not 'my wife takes care of our kid at home'. 'At home' here actually implies that 'my wife' is not in America -- but 'at home' -- in any country where their home is.

Another difference between the sentence initial and preverbal zai/dao phrase is that the sentence initial zai/dao phrase provides a background to the action while the preverbal phrase denotes a physical location of the action. This difference can be seen in the following sentences: (9) and (10) in Pattern 4 in 3.1.1:

(7)a. 在礦上，誰都是這麼說的。
Zai kuang-shang, shei dou shi zhemo shuo-de.
'Everyone in the mine said so.'
b 誰在礦上都是這麼說的。
Shei zai kuang-shang dou shi zhemo shuo-de.
'Anyone said so when he is at the mine.'

(8a) 在我們店里，人人買了電視機。
Zai women dian-li, renren mai-le dianshi ji.
'Everyone in our store bought a TV.'

b 人人在我們店里買了電視機。
Renren zai women dian-li mai-le dianshi ji.
'Everyone bought a TV from our store.'

In (7a) sentence initial zai phrase indicates employment relation between renren 'everyone' and zai kuang-shang 'in the mine'. Thus 'everyone' does not have to be physically 'in the mine' when he 'said so'. On the other hand, in (7b), the preverbal zai phrase denotes the location 'mine' where shei 'whoever' physically is when he 'said so'. Similarly, in (8a), renren 'everyone' and zai women dian-li 'in our store' indicates an employment relationship. Renren refers to those who work in the store. So zai women dian-li, renren... means 'every employee in our store.' The action of mai-le dianshi 'bought a TV' does not necessarily happen 'in our store'. On the other hand, in (8b), zai women dian-li denotes the location where the action of mai-le dianshi happens and renren refers to 'customers'.

4.2 Conceptual Distance and Positions of Verb Arguments

The linear order of a syntactic structure exhibits closeness or distance of each syntactic unit with regard to others. This order is motivated by conceptual distance. Since zai/dao/gei can occur in different
syntactic positions, their relation with other syntactic units must vary accordingly, and the varied relations must be reflected in the linear order.

The subject / object participant of an action and their location indicated by \textit{zai/dao} phrase in different positions are reflected in linear word order. So is the postverbal \textit{gei} phrase and the verb with the direct object. Both can be accounted for by the motivation of conceptual distance.

4.2.1 \textit{Zai} / \textit{Dao} Phrase

The previous section shows that both sentence initial and preverbal \textit{zai/dao} phrase precede the verb following PTS while they differ in terms of PTSC. The sentence initial \textit{zai/dao} phrase provides a background for the other parts of a sentence. The preverbal one denotes the physical location or direction of the action in a sentence. The latter has the activity that immediately followed it while the former does not necessarily so. There is an immediate attachment relation between preverbal \textit{zai/dao} phrase and the action expressed by the verb. But such a relation does not necessarily exist between the sentence initial \textit{zai/dao} phrase and the verb. Therefore, preverbal \textit{zai/dao} phrase has a closer relationship with the following activity than the sentence initial one.

As "the linguistic distance between expressions corresponds to the conceptual distance between them" (Haiman, 1983: 72), it can be well justified that the sentence initial \textit{zai/dao} phrase, being an adverbial of background, is more distant conceptually from the action than the physical location of the verb indicated by the preverbal \textit{zai/dao} phrase. Consequently,
in linguistic expressions, the sentence initial \( zai/\text{dao} \) phrase is away from the verb while the preverbal \( zai/\text{dao} \) phrase is adjacent to the verb.

The motivation of conceptual distance also accounts for the relationship between the participants of an action, i.e., the subject and the object, and the location/direction indicated by \( zai/\text{dao} \).

My analysis in 3.4 has revealed that with the sentence initial or preverbal as the only allowed position for \( zai/\text{dao} \) phrase, the subject participant, which in most cases is adjacent to \( zai/\text{dao} \) phrase, is in the location/direction indicated by \( zai/\text{dao} \) while the object participant is not necessarily in that location/direction. Take the following sentences from Chapter III for example. Since \( zai \) and \( \text{dao} \) are interchangeable in these examples, they will be presented in one instead of two separate sentences.

(9) 他在/到圖書館看書。 (= (102/113), p.113/118)  
Ta \( zai/\text{dao} \) tushu guan kan shu.  
he at/go to library read book  
\( zai: \) 'He reads books in the library.'  
\( \text{dao:} \) 'He went to the library to read.'

(10) 旅客在/到船上欣賞風景。 (= (104/115), p.114/119)  
L\( u\)ke \( zai/\text{dao} \) chuan-shang xinshang fengjing.  
traveler at/go to boat-LOC enjoy scene  
\( zai: \) 'Travelers enjoy the scene on the boat.'  
\( \text{dao:} \) 'Travelers went to the boat to enjoy the scene.'

(11) 他把手插在/到口袋里。 (= (107/119), p.115/119)  
Ta ba shou cha \( zai/\text{dao} \) koudai-li.  
he PRT hand insert at/to pocket-LOC  
\( zai: \) 'He inserted his hands into his pockets.'  
\( \text{dao:} \) 'He inserted his hands into his pockets.'

(12) 你陪病人在/到醫院檢查一下。 (= (118), p.118)  
Ni pei ping ren \( zai/\text{dao} \) yiyuan jiancha yi xia.  
you accompany patient at/arrive hospital check one CLF  
\( zai: \) 'You accompany the patient to have a check-up in the hospital.'
**dao:** You accompany the patient to the hospital to have a check-up.

In (9), both subject and object, i.e., 'he' and 'book' are in the location 'library' for the event of 'his reading' to take place. This is one case of preverbal zai/dao phrase. Another case is represented by (10) in which only the subject, 'travelers' is in the location indicated by zai/dao phrase. The object 'scene' is not. In both cases with the preverbal zai/dao phrase, the subject which is the one closer to zai/dao phrase is necessarily in the location indicated by zai/dao. The adjacency position of the subject and preverbal zai/dao phrase reflects their closer relationship in conceptual distance. The third case is exemplified by (11) with postverbal zai/dao phrase, in which the subject 'he' is not in the location indicated by zai/dao phrase but the object 'hands' is. Therefore, the ba construction is employed to bring the closeness between the object 'hands' and the location 'his pocket'. (12) represents another case of postverbal zai/dao phrase, in which both subject 'you' and object 'the patient' are in the location/direction indicated by zai/dao. In both cases with the postverbal zai/dao phrase, the participant that is closer to the locative phrase, i.e., the object, is necessarily in the location/direction denoted by zai/dao.

### 4.2.2 Gei Phrase

The motivation of conceptual distance also accounts for the relation between gei phrase and other units of a sentence.

Among verbs that co-occur with gei phrase, type B verbs (including verbs of taking and verbs of non-giving or non-taking) cannot be
immediately followed by *gei* phrase. In other words, this type of verbs occur with preverbal *gei* phrase and postverbal *Ogei*, i.e., *gei* phrase follows the direct object, but not the postverbal *geiO*, i.e., *gei* phrase precedes the direct object. The following sentence taken from 3.1.3 are examples of postverbal *gei* with type B verbs.

(13)a 趙師傅炒了一盤肉給他。
Zhao Shifu chao-le yi pan rou gei ta.
Zhao master fry PRT one plate meat give him
'Master Zhao fried him a plate of meat.'

*b 趙師傅炒給他一盤肉
Zhao Shifu chao gei ta yi pan rou

(14)a 他買了三幅畫給老人。
Ta mai-le san fu hua gei lao ren.
he buy PRT three CLF painting give old man
'He bought the old man three paintings.'

*b 他買給老人三幅畫
ta mai gei lao ren san fu hua

In contrast, other verb types, for example type A, C and F verbs, can occur with either the postverbal *Ogei* and *geiO*. Take (48), (50), and (53) with postverbal *gei* from Chapter 3, which we renumber here, for example:

Type F (15)a 房東留下一把鑰匙給他。
Fangdong liu-le yi ba yaoshi gei ta.
landlord leave PRT one CLF key give him
'The landlord left a key to him.'

b 房東留給他一把鑰匙。
Fangdong liu gei ta yi ba yaoshi.
landlord leave give him one CLF key
'The landlord left him a key.'

Type C (16)a 老板賣了三本書給他。
Laoban mai-le san ben shu gei ta.
shopkeeper sell PRT three CLF book give him
'The shopkeeper sold three books to him.'
b 老板賣給他三本書。

Laoban mai gei ta san ben shu.
shopkeeper sell give him three CLF book
'The shopkeeper sold him three books.'

Type A (17a) 小李給了一封信給他。

Xiao Li ji -le yi feng xin gei ta.
Xiao Li send PRT one CLF letter give him
'Xiao Li sent a letter to him.'

b 小李寄給他一封信。

Xiao Li ji gei ta yi feng xin.
Xiao Li send give him one CLF letter
'Xiao Li sent him a letter.'

The acceptability of V- gei phrase-O (or V- gei-Oi-Od) and V-O-gei phrase (or V-Od- gei-Oi) depends on the relation between verbs and direct objects. V-O- gei phrase reflects a closer relationship between the verb and the direct object, or a distant relationship between the verb and the gei phrase while V- gei phrase-O does the opposite.

In (13a) and (14a), there is a creating or obtaining process before the substance (the direct object) is ready to be given to the receiver (the indirect object): cooking the meat and purchasing paintings. Thus there is a distance between the verb and the gei phrase. The gei phrase cannot immediately follow the verb. The process of creating and obtaining are associated with semantic meanings of the verb chao 'fry' and mai 'buy'. In contrast, type F, C, and A verbs liu 'leave', mai 'sell', and ji 'send' in (15), (16), and (17) do not have substance creating or obtaining meanings. The substances are ready to be given to the receivers. There is no distance between the verb and the gei phrase. Nor is there distance between the verb and the direct object. Thus the verb can be immediately followed by either the gei phrase or the direct object. The linguistic distance between certain
types of verb and the *gei* phrase also reflects the temporal sequence: getting things ready first, then giving them to receivers. When there is no need to create or obtain things for giving, the temporal sequence is blurred and there is the option of placing the *gei* phrase before or after the direct object.

4.3 Word Order and Erosion of Iconicity

The Principle of Temporal Sequence, Principle of Whole-before-Part, and the Motivation of Conceptual Distance account for basic word order regularities of *zai/dao/gei* phrase. However, there are two peculiar cases that are not in conformity with principles of iconicity but are still grammatical. One case is that the word order of *zai/dao* phrase may change while the basic meaning remains unchanged. Another case is ambiguity with preverbal *gei* phrase, i.e., *gei* phrase marks either the benefactive or the goal, so one sentence may have two readings. These cases can be accounted for as the result of the erosion of iconicity. I will discuss them separately.

4.3.1 Temporal Sequence Blurring

The following examples from Chapter III present the case that *zai/dao* phrase changes word order without basic meaning change:

(18)a 他在家里。

*Ta zai jia -li zhu.*

he at home-LOC live

b 他住在家里。

*Ta zhu zai jia -li.*

he live at home-LOC
'He lives at home.'

(19)a 在鐵絲上小王晾了几件衣服。
   Zai tiesi -shang Xiao Wang liang-le ji jian yifu.
   Xiao Wang at iron wire-LOC hang PRT few CLF clothes

b 小王在鐵絲上晾了几件衣服。
   Xiao Wang zai tiesi -shang liang-le ji jian yifu.
   Xiao Wang at iron wire-LOC hang PRT few CLF clothes

c 小王晾了几件衣服在鐵絲上。
   Xiao Wang liang-le ji jian yifu zai tiesi -shang.
   Xiao Wang hang PRT few CLF clothes at iron wire-LOC
   'Xiao Wang has hung some clothes on the iron wire.'

(20)a 在超級市場門口發生了車禍。
   Zai chaoji shichang menkou fasheng-le che huo.
   at super market gate happen PRT car accident

b 車禍在超級市場門口發生了。
   Che huo zai chaoji shichang menkou fasheng-le.
   car accident at super market gate happen PRT

c 車禍發生在超級市場門口。
   Che huo fasheng zai chaoji shichang menkou.
   car accident happen at super market gate
   'At the gate of the super market a car accident happened.'

(21)a 你到沙發上坐著等。
   Ni dao shafa-shang zuo-zhe deng.
   you arrive sofa-LOC sit PRT wait

b 你坐到沙發上等。
   Ni zuo dao shafa-shang deng.
   you sit arrive sofa-LOC wait
   'You sit on the sofa and wait.'

(22)a 他到小張家裡住。
   Ta dao Xiao Zhang jia -li zhu.
   he arrive Xiao Zhang home-LOC stay

b 他住到小張家裡。
   Ta zhu dao Xiao Zhang jia -li.
   he stay arrive Xiao Zhang home-LOC
   'He stays at Xiao Zhang's home.'
As has been discussed in 3.2 and 3.3, such a case of zai/dao phrase occurring in different positions without basic meaning change is aspectually conditioned. The conditions are, first, the sentence must describe static situations; secondly, with zai phrase, verbs must be verbs of existential state and certain verbs of change-of-state; and with dao phrase, only verbs of existential state. Under these conditions, zai/dao phrase indicates the location of a state of affairs. The above examples are all in static situations. Except for fasheng 'happen', the other verbs are verbs of existential. Although there is the tendency for the preverbal zai/dao phrase to associate with continuing state and the postverbal zai/dao phrase with remaining state, both are the static situation in general. Features of the static situation (cf. 2.5 & 3.3) make time change opaque, or less important. Temporal sequence is blurred, it does not apply here to impose fixed order. In other words, the word order is relatively freer when there is no clear temporal order for the principle to apply. In such a case the change in word order for zai/dao phrase has little effect on meaning.

4.3.2 Ambiguity of Preverbal Zai/Gei Phrase

From chapter III, on the relationship between the location indicated by the preverbal zai phrase and the participants we have the following examples:

(23)a 小李在抽屉里找东西。  
Xiao Li zai chouti-li zhaodongxi.  
'Xiao Li is looking for something in the drawer.'
What these sentences have in common is that the subject participant cannot be actually 'in' or 'on' the location indicated by the preverbal *zai* phrase. To be more accurate, they are 'adjacent to' the location. An iconic expression of the actual situation like (27) would be: *Xiao Wang zhan zai tiesi pang wang tiesi shang liang-le ji jian yifu* 'Xiao Wang stood by the iron wire hanging a few clothes on it.' This is no doubt a grammatical but very awkward linguistic expression in spite of its accuracy. The expressions of these examples are more economic, though the iconicity is distorted.

However, although these sentences lose iconic accuracy, there is no problem in understanding. There are some other normal, economic sentences of the same syntactic structure that do create ambiguity:

(28) *Xiao Li zai shu-shang zhai pingguo.*

Xiao Li (sat) on the tree (trunks) and picked up apples.'
(29) 他在火車上貼標語。
Ta zai huo-che-shang tie biao-yu.
'He is by the train pasting slogans.'
or: 'He is in the train pasting slogans.'
or: 'He is pasting slogans onto the train.'

The subject participant may actually be 'on' or 'in' the location indicated by the preverbal zai phrase, but the participant may also just be 'on' or 'by' the location as in (28) and (29). Here economy really causes some problems.

Iconicity can also be eroded in the word order of gei phrase. As mentioned earlier, a giving action almost always involves some benefit to the receiver from the giver. It is hard to completely separate a giving activity and the accompanying quality of being beneficial. Thus it is not strange for many verbs to occur with preverbal gei phrase which entail both 'to' and 'for' readings. Furthermore, such a dual-role of gei also causes opacity in direction of action: who is the receiver of the substance?

In the following examples from Chapter III, it is not clear whether 'he' is the receiver of the 'two packages', and whether 'she' will have the 'sweater'.

(30) 老張給他帶了兩個包裹。
Lao Zhang gei ta dai le liang ge bao-guo.
'Lao Zhang brought two packages to him.'
or: 'Lao Zhang brought two packages for him (to someone else).'

(31) 奶奶給她打毛衣。
Nai-nai gei ta da mao-yi.
'Grandma knitted her a sweater.'
or: 'Grandma knitted for her a sweater (to give to someone else).'
The two sentences will become unambiguous if we supplement another "gei" phrase indicating the goal at the end:

(32) 老張給他帶了兩個包裹給她。
*Lao Zhang gei ta dai -le liang ge baoguo gei ta.*
Lao Zhang give him bring PRT two CLF package give her
' Lao Zhang brought two packages for him to her.'

(33) 奶奶給她打毛衣給小寶寶。
*Nainai gei ta da maoyi gei xiao baobao.*
grandma give her knit sweater give little baby
'Grandma knitted for her a sweater for her little baby.'

Although we cannot make the assumption that (30) and (31) are the reduced forms of (32) and (33), it is very obvious that ambiguity occurs in the simpler form -- economy at the cost of iconicity and accuracy.

4.4 Marked and Unmarked Word Order

The theory of markedness may help elucidate the word order of "zai/dao/gei" phrase in relation to other units of a sentence, and to the sentence as a whole.

In the markedness theory, the more general, more frequent pole is the unmarked term of the opposition while the more focused, more uncommon pole is the marked term. The word order facts of the "zai/dao/gei" phrase have suggested strongly that in general, preverbal "zai/dao/gei" phrase are unmarked while postverbal "zai/dao/gei" phrase are marked. Sentence initial "zai/dao" phrase can be regarded as one case of preverbal position. In terms of preverbal "zai/dao" phrase sentence initial is the marked position while preverbal is the unmarked. Postverbal "gei" phrase
has Ogei and geiO positions. In terms of postverbal gei phrase, Ogei is the unmarked position while geiO is the marked position. These statements can be explicated in different levels.

In terms of semantic function, postverbal locatives have a specific, exclusive role. For zai/dao phrase, it is to denote the ending spot of an action. For gei phrase, it is to mark the goal of an action. On the other hand, preverbal locatives are more general. The location indicated by zai/dao phrase may be the location for the beginning of an action, or for the whole process of an action including or not including the ending, i.e., the marked item, the postverbal locatives, may be included. For preverbal gei phrase, there is possibility of marking either the benefactive or goal, or both.

For example, Xiao haizi tiao zai di-shang 'the little child jumped to the ground,' with postverbal zai, di-shang is only the location after the jumping action finishes. With preverbal zai, Xiao haizi zai di-shang tiao 'the little child was jumping on the ground,' the location di-shang 'ground' is where the jumping action starts, continues, and ends -- more than one activity of ups and downs take place. So xiao haizi zai di-shang tiao 'the child was jumping on the ground' entails xiao haizi tiao zai di-shang 'the child jumped to the ground'. For an example of dao phrase, Xiao Wang da dianhua dao xuexiao 'Xiao Wang make phone calls to school' with postverbal dao phrase the activity of making phone calls has restricted direction. In Xiao Wang dao xuexiao da dianhua 'Xiao Wang went to school to make phone calls', preverbal dao phrase does not limit the direction of making phone calls.
Examples of markedness that contrast between preverbal and postverbal *gei* phrase can be drawn from Chapter III. In sentences like *Zhao shifu chao-le yi pan rou gei ta* 'Master Zhao cooked him a plate of fried meat' (p.63), and *Ta mai-le san-fu hua gei laoren* 'He bought three paintings for the old man' (p. 64), postverbal *gei* phrase exclusively marks the receiver of the action: 'him' and 'the old man'. In contrast, the unmarked preverbal *gei* phrase brings out a broader interpretation. In *Zhao shifu gei ta chao-le yi pan rou*, the preverbal *gei* phrase marks both 'benefactive' and 'goal', thus two readings are possible: 'Master Zhao cooked a plate of fried meat (on behalf of) him' and 'Master Zhao cooked a plate of fried meat (to give to) him'. In *Ta gei laoren mai-le san-fu hua*, the preverbal *gei* phrase also may mark either 'benefactive' or 'goal'. The sentence thus can be understood as either 'He bought three paintings (on behalf of) the old man', or 'He bought three paintings (to give to) the old man'.

This markedness relationship in semantic functions also shows up in the relationship between participants and locations with *zai* phrase. (Cf. Table 1 in 3.3.1). When *zai* phrase is allowed in postverbal position only, the relation between location and participants is simple and clear: the subject participant is not in the location indicated by postverbal *zai* phrase while the object participant is. Thus postverbal *zai* is marked for the location of the object. When *zai* phrase is allowed in either sentence initial only or preverbal only position, it is marked for the location of subject. But the whole situation is less simple, and there is no clear-cut relation between location and participants: the subject participant is in or adjacent to the
indicated location, and the object participant has both in and not in the location possibilities, which leads to a broader interpretation, an unmarked situation.

Another level where markedness theory can shed light on our understanding of the word order issue is aspetual situations and verb types.

Viewing static situations and dynamic situations as two polar oppositions, static situations can be regarded as unmarked while dynamic situations are marked. In static situations, zai/dao phrase has greater range to change their word orders with indistinguishable meaning change. In dynamic situations, word orders are restricted by meanings.

However, in terms of temporal sequence, static situations are marked -- the unrestricted word order of zai/dao phrase is indifferent to PTS. Dynamic situations become unmarked, as the result of following the expected PTS.

In terms of types of verb that co-occur with zai phrase, within static situation, the sentence initial and preverbal zai/dao phrase are the unmarked cases: they can occur with state verbs at different degrees of static state, from absolute state to existential state. Thus the occurrence of postverbal zai/dao phrase is more restricted. It occurs only with verbs of existential and certain verbs of change-of-state. Thus they are marked.

In dynamic situations, the preverbal zai/dao phrase occurs with verbs of accomplishment and activity verbs with durative quality. The postverbal zai/dao phrase does not restrict the condition on activity verbs.
Both +durative or -durative activity verbs can occur with postverbal \textit{zai/dao} phrase. In terms of restrictions to verb types, we may say that sentence initial and preverbal \textit{zai/dao} phrase are marked, and the postverbal ones are unmarked.

In terms of verb types associated with \textit{gei} phrase, the preverbal \textit{gei} phrase is unmarked and the postverbal one is marked. The preverbal \textit{gei} phrase has no co-occurrence restrictions with any type of verbs associated with \textit{gei} phrase regardless of involvement in substance transaction between the subject and the indirect object. The postverbal case excludes type D and E verbs and necessarily involves substance transaction between the subject and the indirect object, which restricts the postverbal \textit{gei} phrase to one interpretation, the 'to' reading.

Within postverbal position, \textit{geiO} is marked and \textit{Ogei} is unmarked. \textit{GeiO} makes the distance between the verb and the indirect object obvious -- type B verbs are ruled out of occurring with it. \textit{Ogei} makes that distance vague -- all types of verb can co-occur with postverbal \textit{Ogei}.

4.5 Markedness and Iconicity

The markedness on the word order in terms of preverbal and postverbal locatives is in conformity with iconic principles that govern the essential conceptualizations reflected in the Chinese word order.

In terms of the principle of temporal sequence, the contrast between preverbal and postverbal \textit{zai} and \textit{dao} reflect not only the order in time, but also the relationship of given-and-new in which given, the old, familiar
information, comes before the new, unfamiliar information. The location or direction indicated by preverbal *zai* and *dao* is the given or old information with regard to its postverbal counterpart which, as the piece of information emerging after the action, is the new and unfamiliar information. These contrasts reflect those between marked and unmarked terms. Therefore, in preverbal locatives being unmarked and postverbal being marked, we see conformity of iconicity and markedness.

On the other hand, the erosion of iconicity can also be related to markedness. Haiman (1985: 148-151) argues that semantic complexity and semantic markedness are not identical. This non-identity is resulted from a powerful tendency in languages, i.e., the tendency of the unmarked form to come to assume the "par excellence" meaning. The "par excellence" meaning has greater range of possible meanings. In other words, semantic ambiguities reside in unmarked forms -- unmarked forms are not iconic.

The reason for such a phenomenon is that "morphological complexity is not only an iconic measure of semantic complexity, but an economically motivated measure of pragmatic familiarity." (Haiman, 1985: 150) Iconic and economic motivations compete with each other. On the one hand, it is true that a complex form represents semantic complexity. On the other hand, a complex form may also express the unfamiliar and the unexpected (which do not necessarily possess semantic complexity) while the reduced form signifies the familiar and the expected (which are not necessarily simple in semantics). It is quite natural that the unfamiliar be expressed specifically and accurately so as to facilitate communication. The familiar and the expected do not need specific expressions to be made
understood. As a result, forms that present clear iconic relation with meanings are marked. The unmarked form reflects the erosion of iconicity.

Ambiguities in preverbal zai and gei phrase lend a good example to it. As discussed earlier (cf. 4.3.2), in contrast to the marked postverbal locatives, which have only one indication, and thus is specific, the preverbal zai and gei phrase have more than one indication which invites greater range of interpretation, and thus is general, less iconic, therefore unmarked. In this case, marked terms are associated with iconicity, and unmarked ones with the erosion of iconicity.
5.0 Introduction

Due to the extensive length and frequent interactions among diverse languages and dialects in the historical development of the Chinese language, impact from historical changes and dialectal variations can never be neglected in the study of this language. In fact, historical and dialectal studies often aid us in understanding synchronical phenomena, especially in our understanding of grammaticalization.

Discussion of grammaticalization of zai, dao and gei inevitably involves their historical development as well as dialectal variations. I will start with a brief diachronic survey on each of the three coverbs, relying on data from representative written resources in history, and drawing analyses from various works relevant to the present study. Since Modern Chinese dialects in many aspects reflect the Chinese language in different stages of its historical development, I will make references to them when it is meaningful. On the basis of this survey, the synchronic description of
zai/dao/gei in Chapter III, and the analysis of word order in Chapter IV, I will then discuss grammaticalization of zai, dao, and gei.

Major written resources in history include: *Lun Yu* 'Analects', *Zuo Zhuan*, *Zhanguo Ce*, which represent Archaic Chinese (11th to 3rd B.C.); *Shi Ji*, and *Han Shu*, which represent Pre-Medieval or Han Chinese (2nd B.C. to 3rd A.D.); *Shi Shuo Xin Yu*, which represent Early Medieval Chinese (3rd to 6th A.D.); *Zu Tang Ji*, and *Dunhuang Bianwen Ji*, which represent Late Medieval Chinese (7th to 13th A.D.); *Guan Han Qing Xiqu Ji*, *Shui Hu Quan Zhan*, *Xing Shi Yinyuan Zhuan*, and *Hong Lou Meng*, which represent Pre-Modern Chinese (1250 to 14th) and Modern Chinese (from 15th on).


For Modern Chinese dialectal data, the resources include: Yu (1990), Lin (1993), Yu (1983), Zhang (1991), and the Data Bank in the Institute of History and Philology, Academia Sinica. Being a native speaker of Guiyang dialect (one major sub-dialect of Southwest Mandarin), I would also draw some relevant data from this dialect.
5.1 Historical Development of Zai

5.1.1 Zai in the Preverbal and Postverbal Position

The syntactic unit of zai+Object appeared as early as in the Chinese oracle bone inscriptions. According to Shuo Wen <<説文>>, Guang Yun, <<廣韻>>, and Er Ya <<爾雅>>, zai means cun ye 'to exist', ju ye 'to reside.'

In the oracle bone inscriptions, zai is found occurring in both preverbal and postverbal positions introducing locations:

(1) 一牛， 在祭卜。
yi n i u, z a i  j i  bu.
one cow at worship divine
'...use one cow to divine at the ceremony.'
(Ning 1, 346 寧一，三四六)

(2) 王彝在祖辛宗。
Wang yi zai Zu-xin zong.
crown wine vessel at Zu-xin temple
'Crown the wine vessel at Zu-xin temple.'
(He 38225 合三八二二五)

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1 Zai still had other meanings. For instance, it meant "to ask after, inquiry", as in "吾子誰在召人." Wu zi du bu zai guaren 'My son just does not greet me'; "lie in", as in "政之所興，在順民心." Zheng zhi suo xing, zai shun min xin 'Success of a policy lies in its conforming to the will of people', etc. Some of them vanished in the development of the Chinese language and others are not relevant to the theme of this study. They will not be dealt with in my discussion.
Shuo Wen <<説文>> (100 A.D.), Guang Yun, <<廣韻>> (13th A.D.), and Er Ya <<爾雅>> (200 B.C.) are important works on Chinese characters, phonology, and lexicon interpretation.

2 There is no commonly agreed translations of oracle bone inscriptions available at the present time.
Shen (1992:123-160), by comparing various prepositional phrases occurring in divination pairs, argues that during this period, i.e., Yin-Shang Dynasty represented by the oracle inscriptions, the postverbal position was the regular position for prepositional phrases, including \textit{zai}+Object, to indicate location, people, etc. The preverbal position is the marked position. Prepositional phrases occur in the preverbal position only for the purpose of highlighting the focus of divination.

In Archaic Chinese, both preverbal and postverbal \textit{zai} are found introducing locations of actions or states. This use can be seen in various Chinese classics.

The following examples show the preverbal \textit{zai} indicating locations:

(3) 子在齊聞\textit{<詠>》，三月不知肉味。

\begin{center}
\textit{Zi zai Qi wen shao, san yue bu zhi rou wei.}
\end{center}

master at Qi hear shao three months not know meat taste

' The Master heard Shao music in Qi and did not know the taste of meat.'

(Analects, \textit{Shu Er <<論語・述而>>) )

(4) 子在陳絕糧。

\begin{center}
\textit{Zi zai Chen jue liang.}
\end{center}

master at Chen exhaust provisions

' The Master ran out of provisions at Chen.'

(Analects, \textit{Wei Ling Gong<<論語・魏靈公>>) )

(5) 貞武仲在齊聞之，曰······...

\begin{center}
\textit{Zang Wenzhong zai Qi wen zhi, yue...}
\end{center}

Zang Wenzhong at Qi hear it, said

' Zang Wenzhong heard it in Qi and said...'  

(Zuo Zhuan, Zhao Gong, 10<<左傳・昭10>>) )

The following examples show the postverbal \textit{zai} indicating locations:
(6) 既絶殷命，襲淮夷，歸在豐，作周官。
Ji chu Yin ming, xi Huai yi, gui zai Feng, zuo zhou guan.
since dismiss Yin order attack Huai tribe return at Feng be
Zhou official
'Ignoring the order from Yin, he attacked tribes in Huai,
returned to Feng and became an official for Zhou.'
(Zuo Zhuan 223)

(7) 為寒，則凝在裂地。
Wei han, ze ning zai lie di...
When cold then congeal at split ground
'When it is cold, it congeals on the split ground.'
(Zuo Zhuan 34)

Although zai in this period was primarily a verb, the above examples show that the prepositional use of zai in the preverbal and postverbal position introducing locations existed from the very early history of the Chinese language.

Distinctions in semantic function between the preverbal and postverbal zai phrase were not very obvious. However, examples above indicate the difference. For instance, zai phrase in (3), (4), and (5) is placed in the preverbal position to indicate the location of the action. In (6) and (7) it indicates the location of the participant as the result of an action, and is placed in the postverbal position.

These uses of zai have remained and developed throughout history. Examples of zai introducing locations are found in Shi Ji <<史記>>, Shi Shuo Xin Yu <<世說新語>>, Dunhuang Bianwei Ji <<敦煌變文集>>, and Guan Han Qing Xiqu Ji <<關漢卿戲曲集>>, the works that represent later historic periods of the Chinese language. Below are some examples from these works.

Examples from *Shi Ji* <<史記>>:

(8) 齊女侍者在桑上聞之，以告其主。
Qi nü shizhe zai Sang-shang wen zhi, yi gao qi zhu.
Qi female attendant at Sang LOC hear it take tell her host
'The female attendant from Qi heard about it at Sang and told her host.'

*(Jin Shi Jia 舊世家)*

(9) 是時楚亡在澤中。
Shi shi Huan Chu wang zai ze-zhong.
that time Huan Chu escape at pool middle
'At that time Huan Chu escaped in the midst of the pool.'

*(Xiang Yu Ben Ji 項羽本紀)*

Examples from *Shi Shuo Xin Yu* <<世説新語>>:

(10) 限司空・・・在船中彈琴。
He Si Kong...zai chuan-zhong tan qin.
He Si Kong...at boat inside play qin
'He Si Kong...played qin in the boat.'

*(Ren Dan 任誕)*

(11) 豆在釜下然，豆在釜中泣。
Qi zai fu-xia ran, dou zai fu-zhong qi.
beanstalk at pot under burn bean at pot midst weep
'Beanstalk burns under the pot, beans weep in the pot.'

*(Wen Xue 文學)*

(12) 殷中軍被廢在信安，・・・
Yin Zhong jun bei fei zai Xinan,...
Yin Zhong jun AUX dismiss at Xinan
'Yin Zhongjun was dismissed at Xinan.'

*(Tuo Mian 點免)*

(13) 許玄度隱在永興南幽穴中。
Xu Xuandu yin zai Yongxing nan you xue-zhong.
Xu Xuandu hide at Yongxing south deep cave midst
'Xu Xuandu hid in a deep cave in the south of Yongxing.'

*(Lou Yi 楮逸)*
Examples from *Dunhuang Bianwen Ji* <<敦煌變文集>>:

(14) 且在深草潛藏。
*Qie zai shen cao qian cang.*
just at deep grass hide
'Just hide in the deep grass.'

*(Han Jiang Wang Ling Bianwen 滇將王陵變文)*

(15) 潛身伏在蓋中。
*Qian shen fu zai lu-zhong.*
hide body lie prostrate at reed midst
'Lie prostrated in the reed to hide.'

*(Wu Zi Xu Bianwen 伍子胥變文)*

(16) 羅伯父子，配在邊疆。
*Liang Bo fu zi, pei zai bianjiang*
Liang Bo father son dispatch at border
'Liang Bo and his son were dispatched at the border.'

*(Han Peng Fu 韓朋賦)*

Examples from *Guan Han Qing Xiqu Ji* <<關漢卿戲曲集>>:

(17) 我在井邊打水飲牛來。
*Wo zai jing-bian da shui yin niu lai.*
I at well side fetch water drink cow come
'I fetched water at the well to water the cow.'

(18) 永遠在我家使喚。
*Yongyuan zai wo jia shihuan.*
forever at my home serve
'Serve my home forever.'

(19) 一個蒼蠅落在筆尖上。
*Yi ge cangying luo zai bi jian-shang.*
one CLF fly drop at pen tip LOC
'A fly dropped onto the pen tip.'

(20) 我才將這文書分明壓在底下。
*Wo cai jiang zhe wenshu fenming ya zai di-xia.*
I just PRT this document clearly press at bottom
'I just obviously put the document under it.'

(21) 几度相持在戰場。
*Ji du xiangchi zai zhan chang.*
several times stalemate at battle-field
'Several times they were at a stalemate at the battle-field.'

The above examples from various works show that the distinct uses of preverbal and postverbal *zai* phrase in the different development stages of the Chinese language did exist. Preverbal *zai* phrase in (8), (10), (11), (17) and (18) clearly indicates locations in which actions take place, and the subject participants are located. Postverbal *zai* phrase in (9), (15), (16), (19), and (20) indicates locations that participants reach as a result of actions. Except for (20), the other examples have intransitive verbs thus only subject participants who are in locations indicated by *zai* phrase. In (20) it is the object participant that is in the location denoted by *zai* phrase while the subject participant is not. This is in conformity with the behavior of postverbal *zai* phrase only sentences in contemporary Chinese.

As for (12), (13), (14), and (21), it seems the word order of *zai* phrase is freer. In other words, in (12), (13), and (21), *zai* phrase can also be in preverbal position without causing changes in meaning. In (14), a postverbal *zai* phrase is equally acceptable. Note these examples are from vernacular Chinese since the third century.

In her research He (1992:217) states that in *Guan Han Qing Xiqu Ji*, preverbal *zai* phrase indicates "the location that an action takes place or goes on", while postverbal *zai* phrase often denotes "the place or position that an action reaches". Her study claims that at least by the Late Medieval Chinese period, distinctions in semantic functions of *zai* phrase in terms of preverbal and postverbal positions had become noticeable.
5.1.2 Zai and Yu 於（于）

Another word yu, the most important preposition from Archaic to Medieval Chinese, co-existed with zai. Among other semantic functions, one of its most frequent uses was to introduce locations. In Archaic Chinese it occurred predominately in the postverbal position:

(22) Liu Gonggong yu Youzhou, fang Huandou yu Chongshan, cuan Sanmiao yu Sanwei, ji Gun yu Yushan
Exile Gonggong at Youzhou, exile Huandou at Chongshan, exile Sanmiao at Sanwei, and kill Gun at Yushan.
'Exile Gonggong at Youzhou, Huandou at Chongshan, Sanmiao at Sanwei, and kill Gun at Yushan.'

(Shu Jing Shun dian 書經舜典)

(23) Ju yu Dishi qian yu Shang.
Live at Dishi move to Shang
'Lived at Dishi and moved to Shang.'

(Xun Zi Cheng Xiang 荀子成相)

During the Early Medieval Chinese period, there was an obvious change: the yu phrase introducing locations was found more often to occur in the preverbal position. Take Shi Shuo Xin Yu as an example, yu occurred more frequently in the preverbal position when introducing locations:

(24) Deng Xiao shi bi nan, yu dao-zhong qi ji zi, quan dizi.
Deng Xiao begin avoid disaster at way LOC give up self son save student

4 於 yu is the older form of 於 yu. (Cf. 王力, 1980).
'Deng Xiao began to take refugee and on the way he gave up his son to save his student.'

(De Xing 德行)

(25) 漢武帝乳母曾於外犯事。
Han Wudi rumu chang yu wai fan shi.
Han Wu Emperor wet nurse once at outside violate law
'Han Wu Emperor's wet nurse once violated the law outside the court.'

(Gui Zhen 規箴)

This change in word order of yu phrase may be influenced by the distribution of the zai phrase since before and during that period, the preverbal zai already existed. He claims that during this period of time the zai phrase started replacing "yu- O" (Yang and He, 1992). According to her statistical analysis on Shi Shuo Xin Yu and Dunhuang Bianwen Ji, occurrence frequency of the zai phrase is increasing in Dunhuang Bianwen Ji, though overall yu-O still occurred more frequently in similar uses.

Significant changes happened during the Vernacular Chinese period. In Guan Han Qing Xiqu Ji, zai is found occurring more frequently than yu. Yu lost almost all its use of introducing locations to zai.

5.1.3 Zai and Zhe 著

Another phase of historic development of zai is its interaction with zhe⁵. From the Early Medieval Chinese period on, zhe, in addition to being a verb, appeared in the postverbal position introducing locations:

---

(26) 长文尚小，载著車中。文若也小，坐著膝前。

Changwen shang xiao, zai-zhe che-zhong. Wenruo yi xiao, zuo-zhe xi-qian.

Changwen still small carry PRT cart middle Wenruo also small sit PRT knee front

'Changwen, still young, was carried in the cart. Wenruo, also young, sat on her knees.'

(Shi Shuo Xin Yu, De Xing <<世說新語・德行>>)

(27) 此小兒三度到我樹下偷桃，我捉得，系著織機腳下。

Ci xiao er san du dao wo shu-xia tou tao, wo zhuo de, xi-zhe zhi ji jiao-xia.

This small child three time to my tree under steal peach I catch PRT tie PRT loom foot under

'This child came to my peach trees to steal peaches three times. I caught him and tied him by the foot of the loom.'

(Qian Han Liu Jia Taizi Zhuan <<前漢劉家太子傳>>)

This use of zhe is found (at least in vernacular Chinese) in greater quantity than zai in the same structure with similar use during the Early Medieval Chinese period. Gradually, zhe's lexical meaning of "attaching" became bleached and its use of expressing "spatial concept" transferred to expressing "temporal concept". That is, the structure of 'V-zhe + location' transferred to 'V-zhe' indicating duration of a state. The following examples (Yu, 1987) demonstrate such a change: in zai-zhe che-zhong 'carry in the cart', zai-zhe 'carry' is followed by the location che-zhong 'in the cart'; in che-zhong zai-zhe 'in the cart carrying', -zhe becomes a progressive suffix of the verb zai 'carry' indicating durativity of the action zai 'carry'.

(28) 長文尚小，載著車中。 ----- 長文尚小，車中載著。

Changwen shang xiao, zai-zhe che-zhong.-- Changwen shang xiao, che-zhong zai-zhe.

Changwen still small carry PRT cart middle -- Changwen still small cart middle carry PRT
'Changwen, still young, was carried in the cart. -- Changwen was still small and carried in the cart.'

(29) '文若亦小，坐著膝前。-- Wenruo, also small, sat on her knees.'

This change of zhe from the construction 'V-zhe + location' to 'location + V-zhe' leaves a space for zai to further extend its function of introducing locations in the postverbal position. It is natural and convenient for zai to take this place of zhe. In the Late Medieval Chinese period, for the same use, zai is found occurring more frequently than zhe in Dunhuang Bianwen Ji and eventually replaced zhe.

The above description and analyses about interactions between zai and yu, and between zai and zhe, lead to the inference that the development of the preverbal zai phrase involves partial supplanting yu and that of the postverbal zai involves partial supplanting zhe. In modern Chinese, zhe completely loses the use of introducing a location, yu is very rarely used in that way. Zai replaces both almost completely. This is probably why zai phrase maintains a rather balanced distribution in preverbal and postverbal positions.

5.1.4 Preserved Old Patterns of Zai Phrase in Modern Dialects

It needs be to pointed out that the Medieval Chinese period is an important transition period during which zai went through all the evolutionary phases of the Chinese language: from Archaic Chinese
through Medieval Chinese to Modern Chinese. Zai had other uses in addition to what are maintained today. During the Medieval Chinese period many uses of zai vanished and no longer exist today. However some are preserved in different Modern Chinese dialects. Now and then modern dialects hint at solutions to problems that are hard to find an answer to if one relies purely on Standard Modern Chinese data. Consider the following sentences with zai in Pre-Modern Chinese:

(30) 你不在前邊去睡，卻來我這後邊作甚？
*Ni bu zai qian-bian qu shui, que lai wo zhe hou-bian zuo shen?*
you not at front LOC go sleep but come me this back LOC do what
'Why do you come to my place in the back and not go to sleep in the front?'

*(Xi You Ji <<西游記>>)*

(31) 只見小蓮哥果真跑到門外。
*Zhi jian Xiao Lian ge guoran bao zai men-wai.*
just see Xiao Lian brother really run at door out
'Sure enough, Brother Xiao Lian has run outside the door.'

*(Xing Shi Yinyuan Zhuan <<醒世姻緣傳>>)*

(32) 曾見一鼠作窩在樹之下。
*Chang jian yi shu zuo ku zai shu zhi xia.*
once see one rat make hole at tree PRT under
'Once a rat was seen making a hole under the tree.'

*(Dunhuang Bianwen Ji)*

(33) 你媳婦兒關你在外頭。
*Ni xifur guan ni zai wai-tou.*
your wife close you at outside
'Your wife shut you out.'

*(Xing Shi Yinyuan Zhuan)*

(34) 只用布袋裝盛，撩他在大江里去。
*Zhi yong bu-dai zhuang cheng, liao ta zai da jiang-li qu.*
just use cloth bag hold throw him at big river in go
'Just use a cloth bag to hold him and throw him into the big river.'
In Standard Mandarin, in the first two sentences, dao would be used instead of zai. In the next three, instead of putting the V-Object before the zai phrase, (33) and (34) would use the ba construction and the sentences become 'ba ni guan zai wai-tou.', and 'ba ta liao zai da jiang-li qu'. (32) would put zuo ku after the zai phrase, thus the sentence is 'yi shu zai shu zhi xia zuo ku.' However, in the Guiyang dialect and some other southern dialects, both situations still exist:

(35) 天黑才來在城里頭。
Tian hei cai lai zai cheng li-tou.
'sky dark only come at town LOC SUF
He didn't come to town until it was dark.'

(36) 那件爛衣服早就丟在渣渣坡去了。
Na jian lan yifu zao jiu diu zai zhazha po qu le.
'that CLF worn-out clothes early throw at garbage hill go PRT
That worn-out article of clothing was thrown in the garbage long ago.'

(37) 晚上關你在門外頭。
Wanshang guan ni zai men wait-ou.
'At night I'll shut you out of the door.'

(38) 他們挑米在下頭去磨。
Tamen tiao mi zai xiatou qu nian.
'they carry rice at downstream go grind
They carry rice downstream for grinding.'

(39) 父親先去了，留下他在那裡。
Fuqin xian qu le, liuxia ta zai nali.
'Father went away first and left him there,'...

(40) 大概有二萬人仍都設籍在他縣市鄉鎮。
Tagai you er wan ren reng dou sheji zai ta xian shi xiangzhen.

(Ba Jin 巴金)
about have twenty thousand people still all register at other county city village town
'About twenty thousand people are still registering in villages belonging to other counties or cities.'
(From a newspaper in Taiwan)

Sentence (35) to (38) are comparable to (30) and (31). Sentence (39) and (40) have the same V-O-zai structure. Apparently, this structure and the use of dao have been preserved in southern dialects, where they are not regarded as ungrammatical as they would be in standard Mandarin.

5.2 Historical Development of Dao

5.2.1 The Use of Dao in Preverbal and Postverbal Position

_Shuo Wen_ defines dao as zhi ye 'to arrive'. According to Shen's study (1992:129-132), the character dao is not found in the oracle bone inscriptions. The preposition yu was the word expressing the meaning of 'arrive'. In expressing this meaning, yu's sentence position was exclusively postverbal. This is in contrast with the preverbal yu functioning as zai to introduce the location where an action takes place.

The character dao is found in literature from the Pre-Qin period, i.e., the Archaic Chinese period, though it did not occur frequently. The following are some examples from Chinese classics in Pre-Qin period:

(41) 今君到楚而受象床
   _Jin jün dao Chu er shou xiang chang_
   now you arrive Chu CON receive ivory bed
   'Now you come to Chu and receive an ivory bed'
   (Zhan Guo Ce: Qi Ce<<戰國策·齊策>>)
(42) 随隆薛之城到于天，犹之无益也。
Sui long Xue zhi cheng dao yu tian, you zhi wu
yi ye.
though heighten Xue PRT city reach to sky still it no
benefit PRT
'Although they heightened the city wall of Xue to the sky, still it
is helpless.'
(Zhan Guo Ce: Qi Ce)

(43) 臣谓到魏，而使所以信之
Chen qing dao Wei, er shi suo yi xin zhi
ministry ask arrive Wei CON make so that believe it
'I ask to go to Wei so as to let them believe it'
(Zhan Guo Ce)

(44) 长驱到齐，晨而求见
Chang qu dao Qi, chen er qiu jian
long ride arrive Qi morning CON request meet
'Riding a long distance to Qi, he requested a meeting the next
morning'
(Zhan Guo Ce)

(45) 避到鲁东门外
Gui dao Lu dong men wai
return arrive Lu east gate outside
'He returned and arrived at the outside of the east gate at Lu'
(Zhuang Zi <<莊子>>) 

In the above examples dao is found in various positions. It occurs as
the first verb in a serial verb construction in (41); and the second verb in a
serial verb construction in (42), (43), (44) and (45). The structures of the
above examples can be illustrated as:

N - dao - L (location) (for (41))
V - N - dao - yu - L (for (42))
V - dao - L (for (43), (44), (45))

In all these sentences, dao is followed by place names. During this
period, in the V-dao-L structure, dao is still a full verb but not a verb
complement like it is in later periods. That dao is followed by yu to denote
direction (e.g., in (42)) is important evidence that dao was basically a full
verb in the Pre-Qin period.

During the Han period dao is found occurring more frequently. The
structure of dao followed by the preposition yu is seldom seen (Cf. Wei,
1989). Instead, dao is often immediately followed by an NP of place. The
following examples show dao in the preverbal and postverbal position.

Preverbal dao:  \( dao \cdot L \cdot V \cdot N \)

(46) 到部募士
\( Dao \ bu \ mu \ Shi \)
go department recruit Shi
'Go to the department to recruit Shi officials'
\((Han \ Shu \ <<\text{漢書}}>)\)

(47) 到滿助魏攻燕
\( Dao \ Man \ zhu \ Wei \ gong \ Yan \)
go to Man help Wei attack Yan
'Go to Man to help Wei in attacking Yan'
\((Shi \ Ji)\)

Postverbal dao:  \( V \cdot N \cdot dao \cdot L \)

(48) 故匈奴使持書于一信到國
\( Gu \ Xiongnu-shi \ chi \ Chanyu \ yi \ xin \ dao \ guo \)
so Xiongnu messenger carry Chanyu one letter to country
'So the messenger from Xiongnu carried a letter from Chanyu to the country'
\((Han \ Shu)\)

(49) 送漢王到雒陽
\( Song \ Hang \ wang \ dao \ Luoyang \)
escort Han king to Luoyang
'Escort the Han king to Luoyang'
\((Han \ Shu)\)
Sentence (46) and (47) have a similar structure with (41) except in (41), there is a conjunction *er* 而 'and' to connect the two verbs, *dao 到* and *shou 受 'suffer'. In (46) and (47), without the conjunction *er*, the two actions have a closer relationship. The first action 'to arrive at 'the department', and 'to arrive at 'Man' are the necessary conditions for the second action of 'recruit Shi officials', 'help Wei attacking Yan' respectively. There is an action-and-goal relationship between the first and second action. On the other hand, in (41), with *er*, there is no such close relation between the two actions. The two actions can be totally independent from each other except that they happened at the same location. The presence of *er* breaks the dependence of the two actions while the absence of
er tightens the relationship. In the former, *dao* has the property of a full verb while in the latter that property becomes weakened.

According to He and Yang (1992), and Lin (1993), in the Six Dynasties, *dao*’s use of introducing the destination increased remarkably. In the structure V-*dao*-L, *dao* following directional verbs such as *wang* 往 'go', and *lai* 來 'come' became popular, which is a sign of *dao*’s weakening verbal property. (56) to (58) are examples of such a use. (54) and (55) are examples with the preverbal and postverbal *dao* respectively.

(54) 规缟素越界到下亭迎之
*Gui gao su* yue jie *dao* Xiating ying zhi
'Gui wove a white mourning dress and crossed the border to Xiating to greet him'

(*Hou Han Shu: Huang Fu Gui Zhuan* <<後漢書·皇甫規傳>>) )

(55) 神足輕舉，飛到十方
*Shen zu* qing ju, *fei dao* shi fang
'magic feet light lift fly to ten direction'

(*Seng Jia Ti Po: Zeng Yi A Han Jing* 僧伽提婆 <<增壹阿含經>>) )

(56) 諸天使便來到我所
*Zhu tianshi bian lai* *dao* wo suo
'Every angel then came to my place'

(*Seng Jia Ti Po: Zeng Yi A Han Jing* )

(57) 後有一青龍來到巫所
*Hou you* yi qing long *lai* *dao* wo suo
'Later a black dragon came to witch place'

(*You Ming Lu* <<幽明錄>>) )

(58) 即往到邊向其殷勤
*Ji wang* *dao* bian xiang qi *yinjin*
'soon go to side toward him please'

'He soon went to his side, doing everything to please him'

(*Hui Jue: Xian Yu Jing* 慧覺 <<賢愚經>>) )
The Tang Dynasty saw a flourishing of the early vernacular Chinese. The preverbal and postverbal *dao* are seen in various vernacular literature works. Here are some examples showing the preverbal and postverbal use of *dao*.

**Preverbal:** *dao* - L - V - N

(59) 此小兒三度到我樹下偷桃。
*Cixiaorangsanitudao woshuxiatao.*
This child three time arrive I tree under steal peach
'This child came to my tree three times to steal peaches.'
*(Qian Han Liu Jia Taizi Zhuan)*

(60) 師有時到山院寄宿
*Shiyoushitiaoshaoyuanjisu*
master sometimes arrive mountain yard lodge
'Sometimes the master lodged at the mountain yard.'
*(Zu Tang Ji: Dan Xia Heshang)*

**Postverbal:** V - N - *dao* - L

(61) 伏牛和尚與馬大師送書到師處。
*Funiushaohangyu Ma Dashi songshoudaoshichu.*
Fu-niu monk and Ma master send book to teacher place
'Fu-niu Monk and Master Ma sent books to the teacher's place.'
*(Zu Tang Ji: Hui Zhong Guo Shi)*

(62) 持書到藥山。
*Chishudaoyaoshan.*
carry book to medicine mountain
'Carry books to medicine mountain'
*(Zu Tang Ji: Yao Shan Heshang)*

**Postverbal:** V - *dao* - L

(63) 走到下坡而憩息。
*Zoudaopingqixi.*
walk to down hill CON rest
'Walk to downhill and take a break'
(Dunhuang Bianwen Ji: Zhuo Ji Bu Chuan Wen
<<敦煌變文集・撮季布傳文>>)

(64) 放到店中
Fang dao dian zhong
put to store-LOC
'Put it inside the store'
(Dunhuang Bianwen Ji: Ye Jing Neng Shi
<<敦煌變文集・葉淨能詩>>)

In (59), (60) and (64), dao carries the meaning of 'to be at', which is comparable to that of zai in static situations. Dao and zai are interchangeable in these sentences, though the meanings may be slightly different.

Although the above structures with dao in various positions have existed since the Pre-Qin period, the syntactic as well as semantic function of dao, and the occurrence frequency of those structures have been changing.

As mentioned earlier, in the Pre-Qin, or Archaic Chinese period, dao was followed by the prepositional phrase, yu + location / time, etc. After the Han Dynasty, dao gradually replaced yu in introducing an 'ending point', because the meaning of dao, 'arriving', suggests the concept of 'destination'. From being a full verb followed by the preposition yu introducing the 'arriving' location, to eliminating the preposition yu, and then to eventually replacing yu in this function, dao's verbal quality became less strong. It can be seen that dao has undergone the process of grammaticalization throughout the history.
5.2.2 *Dao* and Its Varieties in Some Dialects

In *Grammar of Spoken Chinese*, Chao (1968) points out:

In the dialects of the central, western, and southern provinces, there is a very common complement, usually written with the same character *dao*, but pronounced ~*dao*, that is, in the tone of the dialect concerned that is cognate with Mandarin 3rd Tone. Its function is very broad. Depending upon the dialect in question, it serves either as ~*jaur*, ~*daw*, or ~*jiann* (usually without *le*), or as suffix ~*ji* (448).

Quite a few studies (Chao, 1968; Wang, 1983; Yu, 1990; Zhang, 1991; Wu, 1992; Lin, 1993.) have made interesting observations about *dao* and its varieties in some Chinese dialects, particularly in dialects from areas in South and Southwest China. Reports about Hakka (Lin, 1993), Chongqing (Yu, 1990), Chengdu (Zhang, 1991), and Guiyang (Wang, 1983; Wu, 1992), from different angles, have studied functions of the postverbal *dao* mentioned by Chao. Identified functions include *dao* as a preposition, as a static or resultative verb complement, and as a perfective marker.

In this section, we focus on the locative use of the postverbal *dao*, and its compatibility with *zai* in this use.

In Beijing Mandarin, as mentioned earlier, with verbs that inherently require a location or landing point, such as verbs of placement,

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6 Chao gives further explanation about the tone differences (p. 449):

A factor which has contributed to the confusion is the fact that in most parts of the SW Mandarin regions (Szechwan, Yunnan, Kweichow, and parts of Kwangsi, Hupeh, and Hunan) the pitch pattern of the class of etymons corresponding to Standard Mandarin 3rd Tone is middle falling (;42) and thus sounds like the Standard 4th Tone (;51). But when the south-westerners learn the northern 3rd Tone and change their middle falling to a low rising pitch, the whole class changes,...they would do it more nearly right if they kept their original falling pitch on the complement. But that is not the usual way people learn to shift (tonal) gears when they learn other dialects by ear.
verbs of displacement and a few achievement verbs, *dao* and *zai* are interchangeable. Their pronunciations are weakened as [tə] and they can actually be dropped off. *dao*’s original meaning becomes bleached.

In Hakka, postverbal *dao* is cognate with third tone in Beijing Mandarin. It is found to be equivalent to *zai* in the following examples⁷ (Lin, 1993):

(65) 〇 pa ti kun tau³ nai tsi ѓ na,  pa ti tiau tau³ ngoi poi ien thong ti poi ѓ.
     PRT him make arrive where go PRT him throw at outside pond-LOC go
     'Where shall we put him? Throw him in the pond outside.'

(66) 〇 nin ka ciau tie³ ni tung ci fong tau³ la tian le?.
     others not know you thing put at where PRT
     'Others do not know where you put those things.'

(67) 〇 kai tsa³ nin i tin pa mau tsi tai tau³ thi u na tang kau niau.
     that CLF person already PRT hat put on at head-LOC PRT
     'That person already put the hat on his head.'

(68) 〇 pa kai tsa³ nin tsi tsheu³ tau³ thi nai xa.
     PRT that CLF person hat blow arrive ground-LOC
     'That person's hat was blown down on the ground.'

The character's phonetic transcriptions made by Tung (1948) have shown that in these cases, the third tone Hakka postverbal *dao* equals *zai*: both are transcribed as 'tau³'. Interestingly, verbs used with *dao* and *zai*

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⁷ These examples given by Lin (1993) are from Tung's original phonetic data (1948). Words in parenthesis have very different pronunciation from the Modern Mandarin.
are verbs of placement *fang* 'put', *dai* 'wear' and verbs of displacement *diu* 'throw', *chui* 'blow'.

In Southwest Mandarin, at least in Guiyang and Chongqing Mandarin, the two important varieties of this dialect, the following observations are made regarding *dao-NP* **place**.

The third tone *dao*³ followed by *NP* **place** involves two types of situations. One is the situation where *dao-NP* **place** occurs with verbs that inherently require a location. The other is where *dao-NP* **place** occurs with verbs that do not inherently require a location.

When *dao-NP* **place** occurs with verbs that inherently require a location, *dao* and *zai* are interchangeable. The following examples are found in Guiyang and Chongqing. Note that the pronunciation may slightly vary, but the same Mandarin transcriptions are used. According to Yu (1990), *zai* is pronounced [tai] in Chongqing.

(69) 放到/在桌子上
    *fang dao*³ / *zai zhuozi-shang*
    put arrive / at table-LOC
    'put on the table'

(70) 送到/在車站
    *song dao*³ / *zai chezhan*
    see off (send to) arrive / at station
    'see (somebody) off at the station'
    or:  'send (something) to the station'

(71) 跳到/在水頭
    *tiao dao*³ / *zai shui tou*
    jump arrive / at water-LOC
    'jump into the water'

(72) 躲到/在後頭
    *duo dao*³ / *zai hou tou*
    hide arrive / at back-LOC
    'hide in the back'
When $\text{dao} \cdot \text{NP}_{\text{place}}$ occurs with verbs that do not inherently require a location, $\text{dao}^3$ is interchangeable with another word pronounced [ch'i]. I chose the character $\text{qi}$ to represent it because both its pronunciation and its meaning match [ch'i], which means 'up to, on a level with', indicating an action has reached to a certain point within the planned or possible range, and the action may or may not continue (Cf. Yu, 1990, Wu, 1992). In this case, $\text{dao}$ actually has a perfective reading. For example,

(73) 走到齊河邊
$zou \text{ dao}^3 / \text{qi he-bian}$
walk arrive / up to river side
'walk to / to the riverside'

(74) 爬到齊半山腰
$pa \text{ dao}^3 / \text{qi ban shan yao}$
climb arrive / up to half mountain waist
'climb to / up to half way of the mountain'

(75) 飯裝到齊碗邊了。
$\text{Fan zhuang} \text{ dao}^3 / \text{qi wan-bian le}$.
rice ladle arrive / up to bowl edge PRT
'Rice was ladled up to the bowl edge.'

(76) 游到齊河中間
$you \text{ dao}^3 / \text{qi he zhong-jian}$
swim arrive / up to river middle-LOC
'swim to the middle of the river'

In the above examples, it is possible to use $\text{zai}$, which is all right syntactically. But there is a difference in meaning: $\text{zai}$ has no perfective connotation, indicating only existential state.

When $\text{dao}$ is cognate with Beijing Mandarin fourth tone, it has the original meaning 'arrive at, reach' regardless of its sentence position, and is not interchangeable with either $\text{zai}$ or $\text{qi}$. For example, $zou \text{ dao}^4 \text{ Beijing le}$ 走到北京了 'arrived in Beijing' and $zou \text{ dao}^3 \text{ Beijing le}$ 走到北京了
'went up to Beijing' are different. The former has the fourth tone dao⁴, meaning 'went and arrived in Beijing'. The latter, with the third tone dao³, means 'has gone up to Beijing', implying that Beijing is one stop on the journey and further stops may be ahead. Qi can replace the third tone dao³ in zou dao³ Beijing le 'went up to Beijing' but not the fourth tone dao⁴ in zou dao⁴ Beijing le. 'arrived in Beijing'. The latter can be put as Beijing zou dao⁴ le 北京走到⁴了 'Beijing is reached'. But *Beijing zou dao³/qi le *北京走到³齊了 is not acceptable at least in Guiyang Mandarin.

To identify different parts of speech by tonal change is a practice of Classic Chinese. The application of this practice in the postverbal dao in both Southwest Mandarin and Hakka which is spoken in several coastal areas of Southeast China suggests the same or similar origin of the two major dialects. The fact that Hakkans lived in the Southwest China before migrating to the coastal provinces, Guangdong and Fujian, and later moving back to the Southwest indicates the long history of the third tone dao, and explains why the same use and pronunciation of this syntactic unit exist in the two seeming remote dialects.

### 5.3 Historical Development of Gei

In this section, we will focus on the development of ditransitive construction associated with gei and its equivalents.

The written form gei is not easily traceable in the history of the Chinese language. It is simply because there existed a number of different
written forms fitting in the same construction in the historic Chinese literatures, and the presence of *gei* has not been found in a consistent or uninterrupted manner from available data. Such being the case, the following diachronic study of *gei* concentrates on the ditransitive verb-object construction itself, which is consistent and traceable, and attends to changing written forms of *gei* in this construction as they occur.

5.3.1 The Form of Gei

The written form *gei* is not found in oracle bone inscriptions of the *Shang* Dynasty (16th - 11th century B.C.). The earliest appearance of this word is probably around the Spring and Autumn Period (722 - 481 B.C.) (Cf. Shen, 1992, Zhongwen Da Cidian, PP.383-386). According to *Shuo Wen*, it means 'to be sufficient'. For example,

(77) 民必甚疾之，官費又恐不給。

Min *bi* shen *ji* zhi, guan *fei* you kong *bu ji*.
people must very hate it government expense and perhaps not enough
'People must hate it very much and the government may not have enough money.'

(78) 夫賞重則上不給也，罰虐則下不信也。

*Fu shang* zhong *ze* *shang bu ji* ye, *fa nue ze xia bu xin* ye.
PRT reward big amount then upper not enough PRT, punish cruel then lower not honest PRT
'Big amount of reward causes the government to be short of money; cruel punishment makes people dishonest.'

(Zhan Guo Ce)
This written form *gei* is pronounced [chi] which is different from that of the same written form we are studying in Modern Chinese. In the Classic Chinese literatures, *gei* has other meanings and uses. For example, in (79) and (80), it means 'to supply' and 'to give' respectively.

(79) 孟嘗君使人給其食用，無失乏。
*Meng-chang Jun shi ren ji qi shi yong, wu shi fa.*
Meng-chang Jun make people supply him eat use not make lack
'Meng-chang Jun told people to supply him food and daily expenses so that he had no lack of them.'
(Zhan Guo Ce. Qi Ce)

(80) 請銅銘記給之。
*Qing zhu tong ji ji zhi.*
please cast bronze mark give it
'Please cast a bronze mark for it.'
(Song Shi. Zhiguan Zhi <<宋史・職官志>>)

Although the use in (79) and (80) appear similar to that of the ditransitive construction, the occurrence of this structure was not frequent enough to be considered as an established ditransitive construction. There were several other written forms containing the meaning of 'giving' that are associated with ditransitive constructions. For example, *yu* 與 'give', *kui* 輪, 'give', *gui* 銓, 'give', *ji* 己 'give', etc. Yet up to the present time there is still no agreement about which one is the origin of the Modern Chinese *gei* (Cf. Otatatsu, 1956; Peyraube, 1984; Xu, 1990). The adoption of the same written form *gei* in Modern Chinese may be but a coincidence.

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8 According to <<管語>>, it is '居立切', pronounced [chi].
5.3.2 Ditransitive Verb-Object Constructions Prior to Gei

Although the written form of gei is not found in the oracle bone inscriptions, different patterns of ditransitive constructions frequently found in literatures of the Pre-Qin period exist in the oracle inscriptions. Moreover, the types of verb occurring in the ditransitive constructions are compatible to those identified in Modern Chinese by many linguists (Hu, 1960; Zhu, 1979; Peyraube, 1984; Shen, 1992), which include: verbs of giving, verbs of receiving, and verbs of non-giving and non-receiving. What differs from the later times are numerous verbs of worship associated with ditransitive constructions, which result in changes in word order.

In the Archaic or Pre-Qin Chinese period, ditransitive constructions with verbs of giving are found in great quantities (Otatatsu, 1956; Yang & He, 1992). In terms of word order, almost all ditransitive constructions consist of verbs followed by either direct or indirect object (Od & Oi). No study reports finding verbs immediately followed by another verb or a preposition, for example, yu 给 'give, to', yu 與 'give', and then the object. That is, the structure "V₁ + V₂ + Oi + Od" did not exist in the Archaic Chinese. It is generally recognized that the following three patterns of the ditransitive construction are commonly used in Archaic Chinese.

A. V + Oi + Od
B. V + Od + yu + Oi
C. V + Od + Oi

Peyraube (1986) identifies another pattern of ditransitive constructions in this period:
D. \( yi + Od + V + Oi \)

The following are examples of these constructions.

A  \( V + Oi + Od \)

(81) 王赐晏子酒。
   \( Wang ci Yan Zi jiu \)
   king grant Yan Zi wine
   'The king granted Yan Zi wine.'

   \( (Yanzi Chun Qiu, Nei Pian Za Xia <<晏子春秋・內篇雜下>>) \)

(82) 王使榮叔來錫桓公命。
   \( Wang shi Rong Shu lai xi Huan Gong ming. \)
   king messenger Rong Shu come grant Huan Gong order
   'King's messenger Rong Shu came to grant Huan Gong's order.'

   \( (Zuo Zhuan, Xi Gong Yuan Nian <<左傳・莊公元年>>) \)

(83) 管孔子蒸豚
   \( Kui Kong Zi zheng tun. \)
   give Confucius steam pig
   'Give Confucius steamed pig.'

   \( (Meng Zi, Teng Wen Gong Xia <<孟子・滕文公下>>) \)

B  \( V + Od + yu + Oi \)

(84) 丁末，獻楚俘于王
   \( Ding mo, xian chu fu yu wang. \)
   Ding end present Chu captive to king
   'At the end of Ding, they presented captives from Chu to the king.'

   \( (Zuo Zhuan, Xi Gong 28 Nian <<左傳・僖公二十八年>>) \)

(85) 秦伯送衞於晉三千人
   \( Qin bo song Wei yu Jin san qian ren. \)
   Qin king give soldier to Jin three thousand people
   'The king of Qin gave three thousand soldiers to Jin.'

   \( (Zuo Zhuan, Xi Gong 24 Nian <<左傳・僖公二十四年>>) \)
C  \( V + Od + Oi \)

(86)  申子欲言之君

\( Shen \ Zi \ yu \ yan \ zhi \ jun. \)  
'Shen Zi was going to tell it to the king.'

\( Han \ Fei \ Zi, \ Nei \ Chu \ Shuo \ Shang << \text{韓非子・內儲說上} >> \)

(87)  范座獻書魏王

\( Fan \ Zuo \ xian \ shu \ Wei \ wang. \)  
'Fan Zuo presented the book to the king of Wei.'

\( Zhan \ Guo \ Ce. \ Zhao \ Ce \ Si << \text{戰國策・趙策四} >> \)

D  \( yi + Od + V + Oi \)

(88)  子犯以璧授公子

\( Zi \ Fan \ yi \ bi \ shou \ gongzi. \)  
'Zi Fan gave the jade to the prince.'

\( Zuo \ Zhuan, \ Xi \ Gong \ 24 \ Nian \)

(89)  孔子以其兄之子妻之

\( Kong \ Zi \ yi qi xiong \ zi \ qi \ zhi. \)  
'Confucius made his brother's son marry her.'

\( Lun \ Yu, \ Xian \ Jin << \text{論語・先進} >> \)

In addition to the above patterns, a structure with \( yu \) 'give' as the first verb, meaning 'for' is also found in some Pre-Qin literature. For instance,

(90)  今子與我取之，而不與我治之，與我治之，而不與我祀之，焉可？

\( Jin \ zi \ yu \ wo \ qu \ zhi, \ er \ bu \ yu \ wo \ zhi \ zhi, \ yu \ wo \ zhi \ zhi, \ er \ bu \ yu \ wo \ zhi \ zhi, \ yan \ ke? \)  
'Now you captured it for me, but do not govern it for me, govern it for me, but do not offer sacrifices to it for me, is that all right?'
In the future if you need, I will work it out for you.'

(Guo Yu, Wu Yu <<國語・吳語>>) 

This may probably be the origin of the benefactive use of gei in Modern Chinese.

In the Han Dynasty, there emerged another pattern of ditransitive construction:

E. $V_1 + V_2 + O_i + O_d$

The word that was predominantly used to introduce the indirect object in $V_2$ position was $yu$ 'give' which developed very rapidly since Han (Yang & He, 1992; Peyraube, 1986). Other words occurring in $V_2$ position included $yu$ 予 'give', $wei$ 逶 'give', etc. Examples can be seen in the following:

(92) 我有秘方，年老，欲傳與公
    Wo you jin fang, nian lao, yu chuan yu gong.
    I have secret prescription year old want pass on to you
    'I have a secret prescription. I am old and want to pass it on to you.'
    (Shi Ji, Bian Que Lie Zhuan <<史記・扁鵲列傳>>) 

(93) 卓王孫不得已，分予文君僣百人
    Zhuo Wang Sun bu de yi, fen yu Wen Jun tong bai ren.
    Zhuo Wang Sun not have alternative give to Wen Jun servant hundred people
    'Zhuo Wang Sun had to give Wen Jun a hundred servants.'
Shi Ji, Sima Xiang Ru Lie Zhuan <<史記·司馬相如列傳>>

(94) 孝景帝復與匈奴和親，通關市，給遺匈奴
Xiao Jing Di fu yu Xiongnu he qin, tong guan shi, gei wei Xiongnu.
Xiao Jing emperor again with Xiongnu reconcile marriage
open market give Xiongnu
'Emperor Xiao Jing reconciled marriage with Xiongnu,
opened border market, gave things to Xiongnu.'

(Shi Ji)

From Later Han on, yu 與 gradually took the place of yu 予 and wei 賜 in the process of lexical unification (Mei, 1981; Peyraube, 1986). It lost its verbal property and became grammaticalized.

(95) 有一合龍膏，度與和尚。
You yi he long gao, du yu heshang.
have one box dragon plaster pass give monk
'There is a box of dragon plaster to pass on to the monk.'

(Dunhuang Bian Wen Ji)

(96) 長者取刀度與法師。
Zhang zhe qu dao du yu fashi.
elder man get knife pass give Master
'The elder man got the knife and gave it to the Master.'

(Da Tang San Zang Qu Jing Shi Hua <<大唐三藏取經詩話>>)

After Song Dynasty, a few other words such as kui 餘 'give' and gui 歸 'give' are found co-existing with yu 與. However, sentence patterns remain unchanged.

(97) 你也借些出來與酒家。
Ni ye jie xie chu lai yu sajia.
you also lend some out come give me
'You also lend me some.'

(Shui Hu Quan Zhuan <<水滸全傳>>)

(98) 言訖，告總管借與我馬
Yan qi, gao zongguan jie yu wo ma.
say finish tell manager lend give me horse
'After finishing my words, I told the manager to lend me a horse.'

(Xue Ren-Gui Zheng Liao Shi Lue <<薛仁貴征遼事略>>)  

(99) 咱這劍也不賣歸你。
Zan zhe jian ye bu mai gui ni.
we this sword also not sell give you
'I won't sell this sword to you.'

(Wu Dai Zhou Shi Ping Hua Juan Shang <<五代周史平話卷上>>)  

(100) 卻討個生活歸您做。
Que tao ge shenghuo gui ni zuo.
but get CLF job give you do
'But get a job for you to do.'

(Wu Dai Zhou Shi Ping Hua Juan Shang)  

(101) 你做鎖我一副護膝
Ni zuo kui wo yi fu huxi.
you do give me one CLF kneepad
'You make a kneepad for me.'

(Piao Tong Shi <<朴通事>>)  

(102) 貼六個錢鎖我
Tie liu ge qian kui wo.
help six CLF money give me
'Help me out with six coppers of money.'

(Lao Qi Da <<老乞大>>)  

During Ming and Qing period gei emerged and gradually replaced all the others (Yang & He, 1992). Both structure patterns and uses in this period are similar to that in Modern Chinese. However, in Xing Shi Yinyuan Zhuan <<醒世姻緣傳>>, jǐwéi 'give' is found in all positions for gei. This may be the record of a colloquial form in some dialects at that period (cf. Otatatsu, 1956). For instance,

(103) 本等要三百兩，議賜十兩，只已二百九十兩罷   (#6 六回)
Ben-deng yao san hai liang, rang ye shi liang, zhi ji er bai jiu shi liang ba.
we want three hundred CLF yield you ten CLF only give two hundred ninety CLF PRT
'We take three hundred liang, yield ten liang to you, now only two hundred and ninety liang.'

(104) 怎麼公母兩個合伙著拿出二兩銀來吞已人。
Zenmo gong mu liang ge hehuo-zhe na chu er liang yin lai diu ji ren.
how male female two CLF gang PRT take two liang silver come give people
'How come you couple jointly throw out two liang silver to others.'

The structure with *yu* 與, *ji* 已 'give' meaning 'for', preceding the main verb, is also found in the literatures from Song and Yuan periods. For instance,

(105) 快已他做道袍子。
Kuai ji ta zuo dao-pao-zi.
fast give him do gown
'Make him a gown quickly.'

(Xing Shi Yin Yuan #6 <<醒世姻緣傳六回>>)  

(106) 老夫智斬了魯齋郎，與民除害。
Laofu zhi zhan le Lu Zhai Lang, wei min chu hai.
old man wise kill PRT Lu Zhai Lang for people rid scourge
'I killed Lu Zhai Lang by strategy and rid the people of a scourge.'

(Guan Han Qing Xi Qu Ji)

It is in *Hong Lou Meng* <<紅樓夢>>, that *gei* is found predominantly in the ditransitive construction. It occurs in the preverbal and postverbal positions, functioning the same as in Modern Chinese. The following examples are from *Hong Lou Meng*.

Preverbal *gei*:

(107) 我給他帶了好東西來了。
I give him bring PRT good th...g come PRT 'I've brought good things for him.'

(Hong Lou Meng, #31)

What do you want to eat; I'll send you some when I come back.'

(Hong Lou Meng, #35)

Postverbal gei:

You just go; leave everything to me.'

(Hong Lou Meng, #38)

That day the Old Madam should tell some one to give me a few hundred coins.'

(Hong Lou Meng, #37)

One pattern from Archaic Chinese, i.e., V + Od + Oi is not found in Modern Chinese.

5.3.3 Uses of Gei as a Marker in Some Modern Dialects

In some dialects of Modern Chinese, gei is found to have the function of ba as well as bei, i.e., it can mark either an agent or an object. In the following examples, gei marks the agent in (a) and object in (b) sentences:
There are variations of these basic patterns. In the following examples from Beijing Mandarin, *ba*, or *bei*, or *rang / jiao*, or another *gei* (which is a substitute of *ba*, *bei*, *rang*, or *jiao*), occur in the same sentence with *gei*. As the basic patterns in parentheses shown, *gei* can replace *ba*, *bei*, *rang*, *jiao*, and the second *gei* is omissible.

(111) a 電視機給老王修好了。 (給 = 被)
*Dianshi ji gei Lao Wang xiu hao le.*
The television PRT Lao Wang repair good PRT 'The television has been repaired by Lao Wang.'

b 老王給電視機修好了。
*Lao Wang gei dianshi ji xiu hao le.*
Lao Wang PRT television repair good PRT 'Lao Wang has repaired the television.'

(112) a 老鼠給貓抓住了。
*Laoshu gei mao zhua zhu le.*
mouse PRT cat catch PRT 'The mouse is caught by the cat.'

b 貓給老鼠抓住了。
*Mao gei laoshu zhua zhu le.*
cat PRT mouse catch PRT 'The cat caught the mouse.'

There are variations of these basic patterns. In the following examples from Beijing Mandarin, *ba*, or *bei*, or *rang / jiao*, or another *gei* (which is a substitute of *ba*, *bei*, *rang*, or *jiao*), occur in the same sentence with *gei*. As the basic patterns in parentheses shown, *gei* can replace *ba*, *bei*, *rang*, *jiao*, and the second *gei* is omissible.

(113) 別把杯子給(我)打破了。 (= 別給杯子打破了。)
*Bie ba beizi gei (wo) da-po le.*
not PRT cup give (me) break PRT 'Don't break my cup.'

(114) 他給椅子給搬走了。
*Ta gei yizi gei ban zou-le.*
he give chair give move go PRT 'He has the chair moved away.'

(115) 房子被火給燒了。
*Fangzi bei huo gei shao le.*
house suffer fire give burn PRT 'The house was burned by the fire.'

(116) 悄悄話讓他給他聽見了。
*Qiaozhui hua rang ta gei tingjian le.*
In addition to Beijing Mandarin, these uses of gei have been reported from other dialects such as Southwest Mandarin in Hubei and Sichuan, Wu in Hangzhou, Shaoxing and Wenzhou, Yue in Guangzhou, Xiang in Changsha and Hengyang, Min in Xiamen, Fuzhou, and Chaozhou, and Hakka in Meixian (Cf. Xu 1992: 55-56. Also see in Zhan 1981; Yuan 1983; Lin 1989; Li 1986; Chao 1956; Chao & Ding 1948; Yang 1984.). Although the pronunciation of gei varies from one dialect to another, its semantic and syntactic functions are shared by many dialects. Take Beijing and Hankou Mandarin for example. In Hankou Mandarin, the pronunciation is ba. What have been found in common of the two dialects are: (a) this morpheme has agent and object marker functions; (b) the two functions are marked by the identical form: in Beijing Mandarin, it is the form pronounced gei; in Hankou Mandarin, it is the form ba.

This phenomenon of one form marking functions of opposite directions in Beijing and Hankou Mandarin should be inherently related to the semantic nature of gei. As being discussed in Chapter III, as a dative marking a goal, gei occurs with verbs with opposite meanings: giving and taking. Although gei itself has the meaning of giving, with those verbs, it loses its original meaning and becomes non-oriented. It is then a neutralized attachment to the verb it follows. It is obvious that the other function of gei, marking the benefactive, can be parallel to the function of marking the malfactive. Evidence of this use can be easily found. For instance, both Ta gei wo bang-le mang 'He helped me' and Ta gei wo zhao-
le mafan 'He made troubles for me' have the preverbal gei., the former marking the benefactive and the latter the malfactive. Following these primary functions gei performs, it is natural and quite understandable why in some dialects gei can be equivalent to the two opposite grammatical markers, an agent marker and a patient marker. We will have more discussion on this in 5.4.

5.4 Towards Grammaticalization

It is no accident that the notion of grammaticalization was first recognized by Chinese linguists (Cf. 2.6). As is well known, Chinese depends heavily upon word order and structural words (or the so-called "empty words") to code its grammatical relations. Tracing the historical development of the Chinese language, ninety percent of the Chinese "empty words" originate from verbs. The process of those "full verbs" becoming "empty words" directly relates to their positions in a sentence, or, in other words, to their linear composition with other units--changes of their functions and meanings are brought about by their word order change. On the other hand, changes of their lexical meaning may also cause changes in their linear composition with other syntactic units, thus the change of their word order. These two courses intertwine with each other. The result of this grammaticalization process is the auxiliarization of verbs, i.e., "full words" becoming "empty words". The fact that this distinction between "full words" and "empty words" in the Chinese lexicon existed since very
early in the Chinese language history indicates that the process of grammaticalization started from a long time ago.

We have studied the basic and concrete uses, and the word order of *zai*, *dao* and *gei* phrases in Modern Chinese in terms of cognitive process. We also have studied their development in the history of the Chinese language and variations in some modern Chinese dialects. Now we combine the cognitive and historical processes to look at the process of grammaticalization of *zai*, *dao* and *gei*.

5.4.1 From Locative Expressions to Other Expressions

Derived from their basic uses, *zai*, *dao* and *gei* are frequently found in different kinds of other less concrete expressions.

Next to spatial expressions, *zai* and *dao* are used commonly in time expressions. Earliest examples of *zai* are found in the oracle bone inscriptions, and those of *dao* are found in the Han Dynasty.

(117) 在六月甲申工典。
*Zai liu yue jia shen gong dian.*  
'at six month jia-shen present document.‘

*(Hou shang 1 qi 9 后上一其九)*

(118) ......在夏為御龍氏，在商為豕韋氏，在周為唐杜氏。
...*zai Xia wei Yu-Long Shi, zai Shang wei Shi-Wei Shi, zai Zhou wei Tang-Du Shi.*

in Xia be Yu-Long clan in Shang be Shi-Wei clan in Zhou be Tang-Du clan

'During the Xia Dynasty he belonged to Yu-Long Clan, during the Shang Dynasty he belonged to Shi-Wei Clan, and during the Zhou Dynasty he belonged to Tang-Du Clan.'

*(Zuozhuan, Xianggong 24 nian)*
(119) 孤窮無援，危在旦夕。
   Gu qiong wu yuan, wei zai dan xi.
   lonely poor no help danger at morning evening
   'Lonely and poor, he is on the verge of destruction.'
   (San Guo Zhi, Wu Shu <<三國志·吳書>>)  

(120) 到明而終。
   Dao ming er zhong.
   reach bright CON end
   'To end at the daybreak.'
   (Shi Ji, Yue Shu)  

(121) 待到重陽日，還來就菊花。
   Dai dao Chongyang ri, huan lai jiu juhua.
   wait to Chongyang day return come toward chrysanthemum
   'When Chongyang Day comes, I will be back to see the chrysanthemums.'
   (Meng Hao-ran: Guo Guren Zhuang 孟浩然：過故人莊)

That time expressions of zai and dao are found as early as in the oracle bone inscription period and Late Archaic Chinese period respectively just reflects the fact that in human conceptual structures, after the spatial domain, next important is the temporal domain.

In Modern Chinese, time expressions of zai and dao phrase are as common as their location expressions, and, like their location expressions, time expressions of zai and dao phrases can occur in the sentence initial, the preverbal and postverbal positions.

(122) 在當時，問題還不嚴重。
   Zai dangshi, wenti hai bu yanzhong.
   at that time problem yet not serious
   'At that time, the problem was not serious.'

(123) 專車在三點半到達。
   Zhuanche zai san dian ban douda.
   special car at three o'clock half arrive
   'The special car arrived at three thirty.'
(124) 時間定在後天上午。

Shijian ding zai hou tian shangwu.

time set at back day morning
'The time is set in the morning the day after tomorrow.'

(125) 到明年暑假我再來看你。

Dao ming nian shujia wo zai lai kan ni.
to next year summer holiday I again come see you
'Next summer I will come again to see you.'

(126) 他到開學的時候就回來。

Ta dao kaixue de shihou jiu hui lai.
he arrive open school PRT time just back come
'He will come back when school starts.'

(127) 大風刮到下午兩點才停。

Da feng gua dao xiawu liang dian cai ting.
big wind blow to afternoon two o'clock just stop
'The heavy wind did not stop until two o'clock in the afternoon.'

In addition to time expressions, uses of zai and dao expand to more abstract domains. They are found in expressions of range or respect such as in (128), expressions of condition such as in (129) and (130), expressions of degree, such as in (131) and (132). These uses do not seem to occur as frequently as the expression of time, and some are found more often in written Chinese, for example, (129) and (130).

(128) 他在學習上很努力。

Ta zai xuexi shang hen nuli.
he at study-LOC very hard
'He works very hard with his study.'

(129) 在大家的幫助下，小周進步很快。

Zai all PRT help-LOC Xiao Zhou jinbu hen kuai.
at all PRT help-LOC Xiao Zhou progress very fast
'With the help of us all, Xiao Zhou made rapid progress.'

(130) 這種生活在他已經十分習慣了。

Zhe zhong shenghuo zai ta yijing shifen xiguan le.
this kind life at him already quite used to PRT
'He is quite used to this kind of life.'
Time expressions and expressions of other domains are the metaphorical uses of locatives, in which the spatial cognitive domain transfers to other domains. Concepts of these domains are understood on the basis of the spatial concept. Different degrees of abstractness can be seen in the above sentences. It seems that (131) is less abstract than other sentences. Degree expressed in such a manner is only slightly removed from the concept of location and distance, while respect and condition are somewhat further removed from the original locative domain.

Note that these more abstract expressions with *zai* occur only in the sentence initial and preverbal position, and those with *dao* occur only in the postverbal position. This suggests that grammaticalization happens with the sentence initial and preverbal *zai* and the postverbal *dao*. This implication is enforced in the next stage of grammaticalization of *zai* and *dao*.

As discussed earlier, there were various written forms prior to *gei*, and those forms have not been carefully studied in every aspect associated with *gei*. We assume that at this stage, the manifestation of grammaticalization in *gei* is its more abstract use of marking the
benefactive. Interestingly, it also happens in the preverbal position. This use is seen in the literature from the Ming and Qing Dynasty. For example,

(133) 要一輛小車，給丫頭們坐。
    *Yao yi liang xiao che, gei yatou men zuo.*
    want one CLF small car give maid SUF ride
    'Get a small car, let maids ride.'

(Hong Lou Meng 51)

(134) 等我請個人來給你見見。
    *...deng wo qing ge ren lai gei ni jianjian.*
    wait I invite CLF person come give you look look
    'Let me invite someone to come over for you to take a look.'

(Ernü Yingxiong Zhuan <<兒女英雄傳 7>>)  

Expressions of benefactive should have existed long before the Ming and Qing Dynasties, not with *gei*, but with other forms prior to *gei* that convey the meaning of 'give'.

In the more abstract uses the original lexical meanings of *zai, dao* and *gei* have been vanishing. From another angle, we may say that their original connotations have extended.

5.4.2 From Lexical to Grammatical Concepts

The vanishing of the original meanings of *zai, dao* and *gei* causes the loss of their verbal properties which in turn stimulates their auxiliarization. The positions of *zai, dao* and *gei* with regard to other verbs contributes to their grammaticalization. As a result of these factors acting upon each other, further "emptied" *zai, dao* and *gei* are found to be markers of certain grammatical structures. *Zai* serves as a progressive aspect marker, *dao* a perfective aspect marker, and *gei* a passive/causative
 These functions indicate an even higher stage of grammaticalization.

During the Song and Yuan Dynasty the zai na (zhe)-li(er) 'at there (here)' phrase was a frequently used construction expressing the progressive concept (Lu, 1940; Xiao, 1957):

(135) Chufang xia liang ge yatou zai nali tang jiu.
'Two maids are warming wine in the kitchen.'

(136) Peng di xia yi ge shou housheng zai nali xiang huo.
'Under the covering a young man is warming himself by a fire.'

(137) Yuanyuan wang jian chi zhong yi qun ren zai nali chuan.
'In the distance a group of people are seen poling a boat in the pond.'

(138) Ta xin li zai zheli shou zhe zhai ne.
'He is feeling angry in his heart.'

(139) An Gongzi... xin zhong zai nali panwang.
'In his heart, An Gongzi...is hoping for it.'
The function of zai na (zhe)-li(er) is to indicate an ongoing action but not the location of an action. Though na (zhe)-li(er) to a certain extent has lexical meaning, in the above examples, it does not denote the real location. The real locations are expressed by other phrases: chufang-xia, pengdi-xia, chi-zhong, xin-li, and xin-zhong. Zai na (zhe)-li(er) cannot be interpreted literally and na (zhe)-li(er) can be deleted (Cf. Xiao, 1957; Chao, 1968). So zai is immediately followed by a verb. In such a case, it completely lost its verbal status and becomes the progressive aspect marker. This is what we have found in Modern Chinese:

(140) 他在打電話。
    Ta zai da dianhua.  
    he at make call  
    'He is making phone calls.'

(141) 我們一直在等。
    Women yizhi zai deng.  
    we all the way at wait  
    'We have been waiting all the time.'

The postverbal dao is another example. As a result of being a verb complement, i.e., in the position immediately following a verb, dao further loses its lexical meaning, and becomes a perfective marker. This process can be traced back to the Tang Dynasty (Cf. Mei, 1981; Lin 1993) when examples of dao were found indicating results or states of a verb:

(142) 法達取經到,......
    Fa Da qu jing dao,...  
    Fa Da get Buddhist scriptures reach  
    'Fa Da has got the Buddhist scriptures....'

    (Liu Zu Tan Jing <<六祖壇經 : 98>>)  

(143) 鳥鳥飛不到，野風吹得開
    Ming niao fei bu dao, ye feng chui de kai
evening bird fly not reach wild wind blow PRT open
'Evening birds cannot fly to reach there, wild wind can blow open.'

(Cao Song Shi 曹松詩)

Such uses are common in Modern Chinese. When *dao* attaches to a verb, it adds the meaning of 'results', and/or 'completion' to that verb. For example, in (144), (145), (146) and (147), *dao* indicates the result of the action expressed by the preceding verb. Without *dao*, the meanings of these verbs will be different. For instance, *cai* only means 'to guess', but *cai-dao* means 'guessed and got it right'. For words such as *yishi* in (148), *dao* changes it from a noun to a verb.

(144) 我猜到他的意思了。
*Wo cai-dao* ta-de yisi le.
'I have guessed his meaning.'

(145) 祥子聽到自己的名字。
*Xiangzi ting-dao* ziji-de mingzi.
'Xiangzi heard his own name.'

(146) 他把該做的都做到了。
*Ta ha gai zuo de dou dao le.*
'He has done all that he should.'

(147) 老丁沒遇到識貨的人。
*Lao Ding mei Yu-dao* shi huo de ren.
'Lao Ding did not meet the one who knows about the goods.'

(148) 我意識到這裡有問題。
*Wo yishi-dao* zheli you wenti.
'I realized that there is a problem.'
Peyraube (1988) argues that an early stage in the process of grammaticalization of Chinese verbs changing into prepositions/particles is in their appearance in serial verb constructions of the type V1+ NP1+ V2 (+ NP2). It seems to be the case for *zai* and *dao*.

At the higher stage of grammaticalization, *gei* manifests a dual-role in two kinds of grammatical structures. Namely, the causative construction and the passive construction. In the former, *gei* can be a patient marker, compatible to *ba*, *jiao*, or *rang*; in the latter, it can be an agent marker, compatible to *bei*, *jiao*, or *rang*.

However, it seems contradictory because the two roles are opposite to each other.

To understand why this opposite dual-function is possible for *gei*, we may examine the relationship between the two constructions on the one hand, and characteristics of *gei* on the other.

Although the surface structures of *ba* and *bei* constructions are different, underlyingly, they are closely related to each other. Semantically, both constructions emphasize what happens to the patient. That is why in surface structure, the patient takes the subject position in the *bei* construction, and it is forwarded by *ba* in the *ba* construction. In both cases, the patient is made salient, but by different grammatical structures. The same semantic focus makes the two structures be related to each other, and in turn enables *jiao*, *rang*, and *gei* to take the place of *ba* and *bei* in each construction.
The situation of verbs of giving and verbs of taking seems compatible to that of *ba* and *bei* constructions. Regardless of the direction of the action, the target or goal is the same, i.e., the indirect object.

As discussed in 5.3.3, since *gei* occurs with both verbs of giving and verbs of taking whose actions go in opposite directions in regard to the subject and object, it can be assumed that the lexical meaning of *gei* is neutral. Therefore it is possible for *gei* to take the dual-role in *ba* and *bei* constructions (Cf. Quan, 1984; Xu, 1992 & 1994.).

The semantic function of *gei* marking the benefactive may lend some explanation for the dual-role. Just as giving and taking are parallel, benefactive can be parallel to malfactive. If *gei* marks the goal for both verbs of giving and taking, it marks for the benefactive as well as malfactive.

There is another phenomenon that gives support to our arguments. From 3.1.3, sentences (44) and (45), are re-listed below as (149) and (150):

1. (149)a  他給我喝了一杯酒。  
   *Ta gei wo he -le yi bei jiu.*  
   he give me drink PRT one cup wine  
   'He gave me a cup of wine to drink.'  
   or: 'He drank a cup of wine for me.'

2. (150)a  老陳給他看了一篇文章。  
   *Lao Chen gei ta kan-le yi pian wenzhang.*  
   Lao Chen give him read PRT one CLF article  
   'Lao Chen gave him an article to read.'  
   or: 'Lao Chen proofread an article for him.'

In the first possible reading of the two sentences, since the indirect object is also the subject of the next clause, *gei* actually marks a patient and an agent. For this type of sentences, *jiào* and *rang* can also be used in the place
of gei, which makes such sentences look causative. Such a dual-role of gei naturally extends the dual-role of gei in the ba and bei constructions.

5.4.3 Ambiguities in the Preverbal Zai and Gei Phrase

As mentioned in 3.3 and 4.3.2, ambiguities are found now and then with zai and gei in preverbal position. The ambiguity with preverbal zai lies in the physical location of the participants, i.e., whether the subject or the object actually resides in the location expressed by the zai phrase. For example, in the following sentences with preverbal zai, more than one reading is possible:

(151) 小李在樹上摘蘋果。
Xiao Li zai shu-shang zhai pingguo.
Xiao Li at tree-LOC pick up apple
'Xiao Li (sat) on the tree (trunks) and picked up apples.'
or: 'He (stood on the ladder) by the tree and picked up apples.'

Both readings mirror the common situation of picking up apples from the tree and therefore may have equal chance of occurrence. Sentence (152) shows a similar situation. The three readings may also have almost an equal chance in reality. It is possible that 'he' is standing by the train and pasting slogans onto the train; or 'he' is sitting on the train pasting slogans to something else; or 'he' is on the train and pasting slogans to the wall inside the train.

(152) 他在火車上貼標語。
Ta zai huoche-shang tie biaoyu.
he at train-LOC paste slogan
'He is by the train pasting slogans.'
or: 'He is on the train pasting slogans.'
or: 'He is pasting slogans onto the train.'
As for sentences with preverbal *gei*, because of *gei*’s dual-function of marking the benefactive and the goal, ‘for’ and ‘to’ readings are possible. For example,

(153) 我給他打了電話。
*Wo gei ta da -le dianhua.*
'I called him.'
or: 'I made a phone call for him.'

(154) 我給他寫了一封信。
*Wo gei ta xie -le yi feng xin.*
'I wrote him a letter.'
or: 'I wrote a letter for him.'

From the grammaticalization point of view, these ambiguities can be explained in terms of overlapping (cf. Heine et al, 1991). Overlapping happens when an earlier stage of the linguistic form co-exists with its subsequent stage. The meaning of such a form from the earlier stage overlaps that of the later stage, and ambiguity occurs.

Since *zai* and *gei* are still in the process of grammaticalization, and since at the present, their original verb meaning and function, and their grammaticalized uses, all exist side by side, overlapping is inevitable.

In the case of *zai*, overlapping comes from its prepositional function and its function of marking the progressive aspect. In the case of *gei*, it is the overlapping of its functions of marking benefactive and goal.
5.4.4 Different Degrees in Grammaticalization

As discussed above, *zai*, *dao* and *gei* have all gone through grammaticalization and reached the highest stage of serving as a grammatical concept marker.

However, each of the three has its own characteristics in the process of grammaticalization, and their grammaticalization degrees vary one from another. This can be seen from diachronic and synchronic aspects.

Diachronically, *zai* has the longest traceable development. The written form of *zai* has been consistent since its existence in the oracle bone inscriptions. *Gei* is the least traceable because of varieties in the written form existing throughout different periods of the history. There are a few words semantically related to *dao*, for example *zhi*, and *ji*. However, they exist side by side with *dao* with their own written forms and are still in use, though only in written Chinese.

Synchronic study has shown that all three retain their verbal uses and have other different degrees of grammaticalized uses. This fact suggests that they possess multiple syntactic as well as semantic status in contemporary Chinese and are still in the process of grammaticalization. *Dao* finds sound change in its grammaticalized uses in some dialects, and the dual-role of *gei* in the *ba* and *bei* constructions exist in limited dialects, especially in colloquial languages. The grammaticalized use of *zai* is most stable. There is no conflict found among dialects. We may infer from these facts that *zai* is the most grammaticalized of the three. *Dao* and *gei* at present are more verb-like than *zai*. 
The process of grammaticalization, as has been discussed, involves changes from concreteness to abstractness during which iconicity is gradually distorted and sometimes eventually lost—semantic properties give way to grammatical concepts.
CHAPTER VI

Concluding Remarks

In this study I have conducted a synchronic investigation of the Chinese locatives zai, dao, and gei, with intents to seek explanations of the word order of zai, dao and gei on the basis of the cognition based functional approach, and also to reveal the process of the grammaticalization that zai, dao, and gei have been undergoing, i.e., the process of the three from being full verbs to markers of certain grammatical concepts.

With the word order of zai, dao, and gei as the focal issue, this study has considered:

- Distribution patterns of zai, dao, and gei. I have attempted to provide exhaustive descriptions of the occurrences of the three locatives in terms of their sentence positions preceding and following the main verb;

- Semantic functions of zai, dao, and gei. Based on the distribution patterns, I have tried to determine the distinctness and similarities of the three locatives in their semantic functions with regard to the sentence positions of zai, dao, and gei;
- The relationship between aspectual situations, verb types, and za/dao. The analysis intends to associate the occurrence of za/dao in different word orders with verb types under static as well as dynamic situations;

- The association between participants of activities, i.e., the subject and object, and locations indicated by za/dao phrases;

- The relationship between verb types and semantic functions of gei with respect to the corresponding sentence positions of gei;

- Historic backgrounds as well as dialectal information of za, dao, and gei, which are believed material to Chinese linguistic studies. In this study, such knowledge is an essential component part of the description of grammaticalization of za, dao, and gei;

The study has enabled us to reach the following conclusions:

- Word orders of za, dao and gei phrase in general follow the Principle of Temporal Sequence and Whole-before-Part. The exception happens with static situations in which temporal sequence does not apply.

Static situations provide conditions for za and dao to occur in all possible positions while maintaining basic meanings of the sentence regardless of the position change. The recognized conditions are the two sub-categories of static situations: existential and remaining states. Two types of state verb, verbs of existential and verbs of change-of-state, meet the conditions, and thus co-occur with za and dao phrase in all positions without causing changes in meaning. In such conditions, za and dao phrase exert the same semantic function in all the three possible positions.
- The linear distance relationships between zai/dao/gei and other verb arguments reflect the motivation of conceptual distance, another principle of iconicity. The typical as well as marked instances are the linear closeness of the postverbal zai/dao phrase and the object, and the linear closeness of verbs and the postverbal geiO.

- The erosion of iconicity results in temporal sequence blurring in static situations with zai/dao phrase, and in ambiguities with preverbal zai/gei phrase. The latter reflect the early stage of grammaticalization of gei.

- The process of grammaticalization of zai, dao, and gei can be viewed in two phases. From the historic linguistic point of view, the process of their changing from verbs, to prepositions, then to markers of certain grammatical concepts is going on through time. The development can be seen from each important historic period of the Chinese language history. From the cognitive linguistic point of view, the development can be seen from the concrete to the abstract use of zai, dao, and gei, and from their being full lexical words to markers of certain grammatical concepts. These phenomena can happen at all times. The fact that zai, dao, and gei are found functioning as verbs, prepositions, and markers of certain grammatical concepts in modern Chinese indicate that at the present time, zai, dao, and gei are still in the process of grammaticalization. Their multi-status makes the study of these locatives interesting and complex.

- Word order features, semantic functions, as well as aspectual situation types with regard to zai/dao/gei can be viewed in the light of the theory of markedness. Since markedness is contextually sensitive, marked
and unmarked terms of \textit{zai/dao/gei} in word order, in semantic functions, and in relations with other syntactic units vary with contexts.

We have concentrated on the cognition base in dealing with word order issues of \textit{zai}, \textit{dao}, and \textit{gei}. To broaden as well as deepen our study, further investigations may orient to the functional dimension that Lambrecht emphasizes. Such study would focus on interaction situations and thus deal with issues regarding a speaker's assumption/assertion, his or her identification about addressee's knowledge and the mental state at the moment of utterance, the issues that focus on interaction situations.

More investigation could also be done regarding different phases of \textit{zai/dao/gei} in grammaticalization. We have touched upon the more abstract uses of \textit{zai/dao/gei}, such as their functions of introducing time, condition, degree, and their functions of marking certain grammatical concepts. It would be interesting to investigate whether \textit{zai}, \textit{dao}, and \textit{gei}, in more abstract uses, still maintain the same relationships with different types of verbs and verb arguments, and moreover, to what extent they are still iconic, or lose iconicity. That may lead to gaining further explorations of the relationship between word order iconicity and grammaticalization.

In terms of application of the markedness theory, this study has made but a preliminary analysis. Further examinations could be made in many respects. For instance, the relation between markedness and word order iconicity, markedness in grammaticalization, and how this theory can benefit language learning and teaching.
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