

Effects of Constituent Orders on Functional Extension Patterns of the Verbs for ‘Give’: A Contrastive Study of Thai and Mandarin Chinese*

Language and Linguistics
16(1) 43–68
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DOI: 10.1177/1606822X14556603
lin.sagepub.com



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It is generally known that Thai and Mandarin Chinese are typologically different in that Thai has the head-modifier constituent order whereas Mandarin Chinese has the modifier-head one. This paper aims to investigate how different constituent orders of the head vis-a-vis the modifier and vis-a-vis the complement in Thai and Mandarin Chinese bear on patterns of functional extension of the verbs meaning ‘give’ in the two languages, namely, *hây* in Thai and *gěi* in Mandarin Chinese. Some observations can be made regarding the functional extension patterns of *hây* and *gěi* as follows: (a) the clause connector use is possible for *hây* but lacking for *gěi*; (b) the passive-marking use is possible for *gěi* but lacking for *hây*; (c) the *gěi*-marked dative PP can occur both preverbally and postverbally, whereas the *hây*-marked one can occur only postverbally; (d) only the preverbal *gěi*-marked dative PPs are attested in a Beijing Mandarin speech corpus; (e) the *gěi*-marked benefactive PP can occur only preverbally; (f) the structural schemas of the causative and the passive *gěi* are identical; and (g) the causative use of *hây* is productive but that of *gěi* is not. It is argued that the head-modifier order in Thai seems to correspond with postverbal functionally extended morphemes prevalent in the language. On the other hand, the modifier-head order in Mandarin Chinese seems to correspond with preverbal functionally extended ones prevalent in the language.

Key words: Chinese, grammaticalization, Thai, verb ‘to give’, word order

1. Introduction

It is generally known that Thai and Mandarin Chinese are typologically similar in many respects. They are isolating, topic-prominent, verb serializing, have the subject–verb–object (SVO) basic

* The research reported in this paper has been presented in parts at several venues, including a seminar at the Centre de Recherches Linguistiques sur l’Asie Orientale (CRLAO), École des Hautes Études en Sciences Sociales (EHESS), the 12th International Cognitive Linguistics Conference (ICLC12) at the University of Alberta, Canada, and the 27th Pacific Asia Conference on Language, Information, and Computation (PACLIC27), Taipei, Taiwan. This paper is a substantially revised version of the paper published in the *Proceedings of PACLIC27*. We thank the anonymous reviewers and the audiences at our talks given on several occasions for valuable comments and suggestions. We also thank Le Yi for checking the Chinese data, and Liu Jun and Chang Chuan-chi for translating the abstract into Chinese. This research is supported by the Ratchadaphiseksomphot Endowment Fund of Chulalongkorn University (RES560530179-HS) awarded to the first author and a Grant-in-Aid for Scientific Research from the Japan Society for the Promotion of Science (No. 24520416) awarded to the second author.

sentential word order and are rich with grammaticalized morphemes. However, there is one important difference between them, namely a difference in constituent order. Mandarin Chinese has modifier-head order whereas Thai has head-modifier order (Iwasaki & Ingkaphirom 2005; Ross & Ma 2006). This paper investigates how the difference in constituent order in Thai and Mandarin Chinese bears on patterns of functional extension of serial verbs in the two languages. The serial verbs for ‘give’ across languages are known to be among the most highly polyfunctional verbs, which results from functional extension if viewed synchronically or grammaticalization if viewed diachronically. Therefore, the serial verbs for ‘give’ in Thai and Mandarin Chinese, namely *hây* and *gěi* respectively, are used as a case study. The analysis in this paper is based on the commonalities and differences of *hây* in Thai and *gěi* in Mandarin Chinese presented in Thepkanjana & Uehara (2008) (henceforth T&U 2008). Section 2 presents the theoretical approach, methodology and major concepts used in the study. Section 3 discusses the commonalities and differences between *hây* and *gěi* and compares the constituent orders in the two languages. Section 4 examines effects of constituent orders on patterns of functional extension of *hây* and *gěi*, and section 5 concludes the paper.

2. Theoretical approach, methodology, and major concepts used in the study

This section consists of two parts. Section 2.1 reviews the theoretical approach and methodology used in the study. Section 2.2 presents the theoretical concepts used in the analysis.

2.1 Theoretical approach and methodology

As found in many research works such as Iwasaki & Yap (2000), Li & Thompson (1981), Newman (1993a, 1993b, 1996), T&U (2008), and Yap & Iwasaki (1998, 2003), the words *hây* in Thai and *gěi* in Mandarin Chinese are currently used as lexical verbs as well as grammatical markers such as dative, benefactive, passive, and causative markers. It is thus obvious that *hây* and *gěi* are polyfunctional words. Lexical polyfunctionality typically results from functional extension and/or grammaticalization. The notions of functional extension and grammaticalization are like two sides of the same coin. The former is generally seen as a synchronic phenomenon whereas the latter is a diachronic one. A large number of research works on grammaticalization across languages are carried out by means of studying specific morphemes in ancient texts and in texts of subsequent periods. On the other hand, research works on functional extension are usually synchronic analyses. In this study, multiple meanings of *hây* and *gěi* are viewed as resulting from synchronic functional extension in the sense of Thepkanjana & Ruangmanee (forthcoming). According to Thepkanjana & Ruangmanee (forthcoming), synchronic functional extension corresponds to online extension and attributed extension postulated by Enfield (2003).¹ The former refers to a novel use of a linguistic

¹ Enfield (2003) postulates four types of extension. The online extension and the attributed extension are Enfield’s type II and type III extensions, respectively. Type I extension is ontogenetic extension, which refers to the development of new linguistic concepts on the basis of existing ones, especially in early childhood. Type IV diachronic extension refers to an observable motivated change of a meaning which has occurred over a period of longer than one speaker’s lifetime.

expression by means of metaphor and metonymy, for example calling someone an ostrich because of his peculiar figure and funny way he walks.² The latter refers to a judgment about language by speakers that two established meanings are related. Unlike online extension, the perceived conceptual relationship between meanings are not the result of a creative act of extending meaning and not always consciously recognized by speakers. An example of attributed extension is the word *back*, which is originally a body part term, as in *It's in the back of the cupboard*. (Enfield 2003:27).

Synchronic extension of a word results in a word being polyfunctional or polysemous. Thepkanjana & Ruangmanee (forthcoming) argue that some connections among various meanings of a polyfunctional word may be apparent, whereas some others may be more obscured. The obscured connections between conventionalized meanings are cases of dead metaphor, which corresponds to Enfield's attributed extension. In some other cases, the connections between meanings may be apparent such as in the ostrich example. The latter case corresponds to Enfield's online extension. In short, the multiple meanings of *hây* and *gěi* are viewed in this paper as resulting from synchronic functional extension of the lexical verbs meaning 'give'.

Furthermore, this study aims to provide a functional-typological explanation to a number of cross-linguistic observations regarding functional extensions of *hây* and *gěi*. These observations (§3.1.3) will be accounted for in terms of a typological feature characteristic of Thai and Mandarin Chinese, namely, identical and different constituent orders in both languages. One might wonder how one could be sure that constituent orders in the two languages constitute a factor which accounts for functional extension patterns of *hây* and *gěi*. The answer to this question rests on the 'abduction' mode of reasoning adopted in this study. Abduction is Peirce's (1955) third mode of reasoning,³ which infers a case from a rule and a result as exemplified below.

Abduction

Rule: All the beans from this bag are white.

Result: These beans are white.

Case: These beans are from this bag.

An abductive inference is more or less probable, and not certain. In the example above, the beans could in fact have come from a bag of mixed beans or from a bag that is no longer there. According to Peirce (1955), although an abductive conclusion is not necessarily true, it has value because it is new knowledge and can help us understand things. We shall discuss in detail how abduction is employed in this study in §4. Although constituent orders in Thai and Mandarin Chinese

² Enfield's online extension corresponds with Langacker's extension, which is defined as linguistic creativity and problem-solving activity on the part of the speaker (Langacker 1987:73). The ostrich example is originally used by Langacker to illustrate his notion of extension.

³ The other two modes of reasoning are deduction and induction. Deduction applies a law to an observation and predicts a result. In other words, the result, which is the conclusion, necessarily follows from the rule. Induction proceeds from an observed case and a result to establish a law. In other words, induction involves generalization.

are used as the main factor to account for functional extension patterns of *hây* and *gěi*, we should not fall into what Langacker (1987) calls ‘exclusionary fallacy’, which refers to the thesis that ‘one analysis, motivation, categorization, cause, function, or explanation for a linguistic phenomenon necessarily precludes another’ (Langacker 1987:28). Therefore, to avoid the exclusionary fallacy, we should not assume that the functional extension patterns of *hây* and *gěi* are exclusively accounted for by the constituent order rules in Thai and Mandarin Chinese.

2.2 Major theoretical concepts

This section presents major theoretical concepts used in the study, namely, the notions of complement and modifier. These two notions are important in this study because they figure prominently in constituent order rules of Thai and Mandarin Chinese which are used to account for functional extensions of *hây* and *gěi*. In this section, we shall discuss the notions of complement and modifier both as traditionally defined and as defined in *Cognitive Grammar* (Langacker 1987).

A complement is generally defined as a syntactic category that is selected or subcategorized for by the head of a phrase. A complement is therefore necessary for the head to become semantically complete. Some examples of complements are below. The complements in (1) and (2) are underlined.

- (1) I cut a tree.
- (2) She put a book on the table.

On the other hand, a modifier is generally defined as an expression which limits or qualifies the meaning of a word, a phrase or a sentence. It is less semantically crucial to the meaning of a head than a complement. The underlined parts in (3) to (5) illustrate the modifiers in the sentences. In (3), *very* modifies *tall*. In (4) and (5), the phrases *in the living room* and *after dinner* modify the predicates of the sentences.

- (3) The tree is very tall.
- (4) She read the newspaper in the living room.
- (5) She went to see a movie after dinner.

Langacker (1987) defines the notions of complement and modifier in terms of conceptual autonomy versus dependence. Autonomy and dependence constitute one of the four component factors of valence relations,⁴ which are defined in *Cognitive Grammar* as a grammatical relation

⁴ According to Langacker (1987), in addition to autonomy and dependence, the other three major factors of valence relations are correspondence, profile determinacy, and constituency.

existing in two or more symbolic structures⁵ combining to form a more elaborate expression. The distinction between autonomy and dependence hinges on whether a structure presupposes another for its full implementation or not. An autonomous structure, abbreviated as A, is a semantic structure or a predication that exists on its own; it does not conceptually presuppose another structure for its manifestation. In contrast, a dependent structure, abbreviated as D, is a semantic structure which conceptually presupposes another for its manifestation. On this basis, relations are conceptually dependent since to conceive of a relation, one must conceive of the related entities. For example, the predication [UNDER THE TABLE]⁶ consists of two smaller predications, namely [UNDER] and [THE-TABLE]. The two predications stand in a valence relation with each other. It is obvious that [THE-TABLE] is A whereas [UNDER] is D since the former does not presuppose another predication to manifest itself but the latter does. The notions of conceptual autonomy and dependence are employed by Langacker (1987) to define the terms ‘complement’ and ‘modifier’. Let us look at the following examples which Langacker (1987:308) gives to illustrate the distinction between these two notions.

- (6) a. The verdict rendered him speechless.
b. I put the sweater in a box.
- (7) a. Before she left, the phone rang.
b. We chased squirrels in the park.

Each of the verb phrases (VPs) in (6a) and (6b) consists of two valence relations, that is, one existing between [RENDERED] and [HIM] and the other between [RENDERED] and [SPEECHLESS]. If we compare [RENDERED] and [HIM], it is apparent that the former is more dependent than the latter because the former is a relation whereas the latter is a thing. As for [RENDERED] and [SPEECHLESS], although both are relations, the former is more dependent than the latter because the former requires a stative predication to manifest itself, which is instantiated by the latter. The latter conceptually requires [HIM], but not the former, namely [RENDERED], to manifest itself. Since [RENDERED] requires [SPEECHLESS] whereas the latter does not require the former, the former is considered more dependent than the latter. In (6b), one valence relation exists between [PUT] and [THE-SWEATER] and the other between [PUT] and [IN-A-BOX]. The A's in the two valence relations are [THE-SWEATER] and [IN-A-BOX] and the D is [PUT]. The component [PUT] is more dependent than [THE-SWEATER] because the former is a relation whereas the latter is a thing. In the other asymmetric valence relation between [PUT] and [IN-A-BOX], [PUT] is more dependent than [IN-A-BOX] because the former requires a locational predication for its full manifestation, which is instantiated by the latter. The latter, however, requires [THE-SWEATER], not the former, namely [PUT], for its manifestation. As for (7a), the two predications are [BEFORE-SHE-LEFT] and [THE-PHONE-RANG] and for (7b) the two predications are

⁵ According to *Cognitive Grammar*, the elements that participate in valence relations are symbolic structures. A symbolic structure stands in a symbolic relationship between a semantic structure called predication and a phonological structure.

⁶ A predication or semantic structure is represented by capitalized letters in Langacker (1987).

[WE-CHASED-SQUIRRELS] and [IN-THE-PARK]. With regard to these two examples, Langacker (1987:309) notes that ‘It is known that events like the phone ringing bear temporal relations to other events, and that acts like squirrel-chasing take place in some spatial setting, but these are basically extrinsic specifications and are neither prominent nor central to the designated processes.’ On this basis, in (7a), [BEFORE-SHE-LEFT] is conceptually dependent on [THE-PHONE-RANG] and in (7b), [IN-THE-PARK] is conceptually dependent on [WE-CHASED-SQUIRRELS].

Langacker (1987) defines a complement as follows. In a valence relation which displays notable A/D asymmetry and where D is the profile determinant, A is the complement of D. A profile is defined in Langacker (1987) as the entity designated by a predication. If more than one predication combines into a composite structure or a construction, the composite structure must adopt the profile of a component structure as its own profile. The component structure which assigns the profile to that of the composite structure is called the ‘profile determinant’. We can apply Langacker’s definition of the complement to the examples above.

In (6a) and (6b), the dependent structures [RENDERED] and [PUT] are the profile determinants of the composite structures [RENDERED-HIM-SPEECHLESS] and [PUT-THE-SWEATER-IN-A-BOX], respectively. This is because the profiles of the dependent structures [RENDERED] and [PUT] are actions and those of the whole composite structures are also actions. According to Langacker, a complement is the A which co-occurs with the D which is the profile determinant in a valence relation showing notable A/D asymmetry. On this basis, [SPEECHLESS] and [IN-A-BOX] are complements in (6a) and (6b), respectively.

On the other hand, a modifier is defined by Langacker as follows. In a construction showing notable A/D asymmetry and where the A is the profile determinant of the whole construction, the D is a modifier of A. That means A is the head. Let us apply Langacker’s definition of the modifier to (7a) and (7b). In (7a) and (7b), the autonomous components [THE-PHONE-RANG] and [WE-CHASED-SQUIRRELS] are profile determinants of the composite structures which they are a part of. The composite structures in (7a) and (7b) are propositions, as are the autonomous components. Therefore, [BEFORE-SHE-LEFT] and [IN-THE-PARK] are modifiers in (7a) and (7b), respectively.

3. Commonalities and differences between Thai and Mandarin Chinese

We divide this section into two parts. Section 3.1 reviews commonalities and differences between *hây* and *gěi* as presented in T&U (2008). The functional extensions of *hây* and *gěi* to be accounted for in terms of constituent orders in this study are based on the findings presented in T&U (2008). Section 3.2 discusses an important typological feature of Thai and Mandarin Chinese, namely, constituent order.

3.1 Commonalities and differences between *hây* and *gěi*

In reviewing the common and different uses of *hây* and *gěi*, we focus on the definitions of the uses and the positions of *hây* and *gěi* marking various uses.

3.1.1 Commonalities

T&U (2008) make a synchronic contrastive study of the polyfunctional morphemes *hây* and *gěi* in Thai and Mandarin Chinese. It is found in this work that *hây* and *gěi* share the uses described in (a)–(d). Each use is discussed and exemplified below.

- (a) the ditransitive verb use
- (b) the dative-marking use
- (c) the benefactive-marking use
- (d) the causative-marking use

Hây and *gěi* can function as the main verbs of sentences indicating actions of possession transfer. They co-occur with two noun phrases (NPs) following each other in a row as shown in the two schemas below. Notice that the semantic roles of NP1 and NP2 following *hây* and *gěi* are different.

Ditransitive verb use

Thai: [*hây* + NP1 + NP2]
(thing) (recipient)

- (8) sǒmsàk hây ɲən sǒmchay
Somsak give money Somchay
'Somsak gave Somchay some money.' (T&U 2008:623)

Mandarin Chinese: [*gěi* + NP1 + NP2]
(recipient) (thing)

- (9) Zhāngsān gěi Lǐsì qián
Zhangsan give Lisi money
'Zhangsan gave Lisi some money.' (T&U 2008:624)

The dative-marking *hây* and *gěi* denote a recipient of an action of possession transfer or a target or a goal at which the action denoted by the main verb is directed. T&U (2008) found that the dative NP in both languages occurs after the direct object NP, which follows the VP. However, Li & Thompson (1981) note that the positions of the direct object NP and the *gěi*-marked dative NP can be reversed in Mandarin Chinese depending on which constituent is an old piece of information. According to Li & Thompson (1981), old information precedes new information. The order in which the *gěi*-marked dative NP follows the direct object one is postulated as the basic order because it has been mentioned in most reference grammars of Mandarin Chinese and most works on *gěi*. Moreover, Li & Thompson (1974) make an observation that the *gěi*-marked dative NP has begun to appear in the preverbal since about two thousand years ago, which indicates a structural change that is pushing the language toward the verb-final type. Sanders & Uehara (2012) present findings which correspond to Li & Thompson's (1981) observation; that is, the dative *gěi* in a Beijing Mandarin spoken corpus is found to occur preverbally. We therefore postulate two structural schemas for the dative-marking *gěi*. Notice that the dative constituent [*hây* + NP] in Thai occurs only postverbally.

Dative-marking use

Thai: postverbal *hây*

[V + NP1 + *hây* + NP2]
(thing) (recipient)

- (10) sǒmsák sǒŋ ɲən hây sǒmchay
Somsak send money give Somchay
'Somsak sent some money to Somchay.' (T&U 2008:624)

Mandarin Chinese: two schemas

Schema 1: postverbal *gěi*

[V + NP1 + *gěi* + NP2]
(thing) (recipient)

- (11) wǒ sōng le yì běn shū gěi tā
I send ASP one CL book give s/he
'I gave him a book.' (Li & Thompson 1981:387)

Schema 2: preverbal *gěi*

[*gěi* + NP1 + V + NP2]
(recipient) (thing)

- (12) wǒ gěi tā sōng le yì běn shū⁷
I give s/he send ASP one CL book
'I gave him a book.' (Li & Thompson 1981:387)

Newman (1993b) argues that an act of giving naturally results in some kind of benefit to the recipient. Even a non-giving action, such as driving, speaking, and cleaning can also be done for the benefit of someone. The person who benefits from the agent's action is usually called a beneficiary. Therefore, it is natural that *hây* and *gěi* can also function as benefactive markers. The structural schemas of the benefactive *hây* and *gěi* are given below. Notice that the benefactive *hây* and *gěi* occur in different positions. The former occurs postverbally, that is after the main verb, whereas the latter occurs preverbally, in other words before the main verb. It is noted that the benefactive constructions containing *hây* and *gěi* are of the agentive type as opposed to the event type.⁸ According to Smith (2010), benefaction in the agentive benefactive construction follows from an action by the agent, whereas that in the event benefactive construction follows from a certain event.

⁷ We thank one of the reviewers for pointing out that the preverbal [*gěi* + NP] can have a beneficiary reading. However, according to our native informant of Mandarin Chinese, the recipient meaning of *gěi tā* in (12) is more salient than the beneficiary meaning because the main verb *sōng* 'send' in (12) inherently requires a recipient.

⁸ We thank one of the reviewers for pointing out these two types of benefactive construction.

Benefactive-marking use

Thai: postverbal *hây*
[V + (NP1) + *hây* + NP2]
(beneficiary)

- (13) sǒmsák tət phǒm hây sǒmchay
Somsak cut hair give Somchay
'Somsak cut hair for Somchay.' or 'Somsak cut Somchay's hair.'
- (14) sǒmsák kháp rót hây sǒmchay
Somsak drive car give Somchay
'Somsak drove a car for Somchay.'

Mandarin Chinese: preverbal *gěi*
[*gěi* + NP1 + V + (NP2)]
(beneficiary)

- (15) Zhāngsān gěi Lǐsì mǎi yì běn shū
Zhangsan give Lisi buy one CLS book
'Zhangsan bought a book for (and gave it to) Lisi.'
- (16) Zhāngsān gěi wǒmen chàng yì shǒu gē
Zhangsan give us sing one CLS song
'Zhangsan sang a song for us.'

The causative verbs *hây* and *gěi* express an indirect causation in which the causer intentionally causes an event to take place by doing something to prompt the causee to act or by not doing something which prevents that event from taking place. The causative constructions with the causative-marking *hây* and *gěi* in Thai and Mandarin Chinese have the same syntactic schema as below.

Causative-marking use

Thai and Mandarin Chinese: [NP1 + *hây/gěi* + NP2 + VP]
(causer) (causee)

Thai

- (17) sǒmsàk hây sǒmchay ʔòk pay
Somsak give Somchay exit go
'Somsak had Somchay go out.' (T&U 2008:631)

Mandarin Chinese

- (18) Zhāngsān gěi Lǐsì kàn
Zhangsan give Lisi look
'Zhangsan let Lisi look.' (T&U 2008:631)

It is noted in T&U (2008) that the use of the causative *gěi* in Mandarin Chinese is much more restricted than the use of the causative *hây* in Thai. This point will be discussed in detail in §4.

3.1.2 Differences

With regard to divergences between *hây* and *gěi*, T&U (2008) found that there are two uses of *hây* which are missing in *gěi*, namely, the malefactive use and the connective use in purposive, jussive, and complementation constructions.⁹ On the other hand, there are some uses of *gěi* which are missing in *hây*, namely, the passive-marking use and the ditransitive-marking use.

According to T&U (2008), the malefactive-marking *hây*, which occurs in colloquial Thai, suggests that the action denoted by a co-occurring verb phrase is undesirable and has a bad effect on the person who is affected by the action, as exemplified in (19) and (20).

Malefactive-marking use

Thai: [NP + V + *hây*]

- (19) *dǎw chǎn kôo tèt hây ròk*
 shortly I then kick give final particle
 ‘I might kick you in a moment.’ (T&U 2008:638)

- (20) *rawaŋ khǎw càp dàa hây*
 be careful he will scold give
 ‘Be careful. He might scold you.’ (T&U 2008:638)

The other use of *hây* which is missing in *gěi* is the connective use. The connective *hây* in Thai takes place in complex constructions in which *hây* functions as a subordinator which links two predicates or two clauses. The first clause in the complex construction is the main clause and the other is the subordinate one. The complex constructions in which *hây* functions as the subordinator are classified by Rangkupan (2007) into three types, namely, a purposive construction,¹⁰ a jussive construction, and a complementation construction. In the purposive construction, the subordinate clause functions as a purpose of the performance of an action denoted by the main clause. The jussive construction expresses a command, request or demand made by one participant towards another in

⁹ The classification of complex constructions into three types in Thai, namely purposive, jussive, and complementation, is proposed by Rangkupan (2007). Notice that this classification is based on a hybrid criterion. The purposive and jussive constructions pertain to semantics, whereas the complementation one pertains to syntax. We shall discuss the semantics of the complementation construction in §3.2.

¹⁰ It is sometimes reported that Mandarin Chinese also has the purposive *gěi* construction, which is structurally equivalent to the subordinator *hây* occurring in the purposive construction in Thai. However, the former seems to be more restricted in use and less productive than the latter. Sanders & Uehara (2012) report that the purposive construction containing *gěi* is unattested in a Beijing Mandarin spoken corpus, where the benefactive *gěi* construction with a similar meaning as in (16) is frequently used instead.

order for the latter to perform an action (Van Valin & LaPolla 1997). The complementation construction is a complex construction in which the subordinate clause functions as a complement of the desiderative predicate of the main clause. Since verbs of desire always require a complement, they are usually referred to as complement-taking verbs. Although the word ‘complementation’ pertains to the syntactic structure, which is not on a par with purposive and jussive constructions, we stick with this classification because it is taken from Rangkupan (2007). The structural schema of the connective *hây* and some examples of this use of *hây* are given below.

Clause connective use

Thai: $s_1[NP1 + VP1] + hây^{11} + s_2[NP2 + VP2]$

Purposive construction

- (21) nuan phlâk jûm hây tòk nám
 Nuan push Jum give fall water
 ‘Nuan pushed Jum in order for her to fall into the water.’ (Rangkupan 2007:222)

Jussive construction

- (22) phon bòk hây jûm nâj loj
 Phon tell give Jum sit DIR¹²
 ‘Phon told Jum to sit down.’ (Rangkupan 2007:217)

Complementation

- (23) jûm yâak hây nuan pay ñaanliãj
 Jum want give Nuan go party
 ‘Jum wants Nuan to go the party.’ (Rangkupan 2007:219)

On the other hand, there are two uses of *gěi* which are missing in *hây*, namely, the passive-marking use and the ditransitive-marking use. The ditransitive-marking *gěi*¹³ appears in the form of a suffix immediately after a monotransitive verb or a ditransitive verb. Sentences (24) and (25) illustrate the ditransitive-marking *gěi* suffix.

Mandarin Chinese: [V-*gěi* + NP1 + NP2]
 (recipient) (thing)

- (24) wǒ sòng-gěi tā yì běn shū
 I present-give s/he one CLS book
 ‘I gave him/her a book.’ (Huang & Ahrens 1999:2)

¹¹ T&U (2008) argue that each type of complex construction results from a reanalysis of *hây* from the causative verb to the subordinator. In the reanalysis process, the causative *hây* is semantically bleached out and loses its verbal properties to varying degrees in the three types of complex construction. In other words, *hây* in the three types of complex construction has different degrees of function word properties.

¹² DIR stands for a directional marker.

¹³ Newman (1993b) calls the ditransitive-marking *gěi* the ‘suffix *gěi*’ whereas Huang & Ahrens (1999) call it the ‘postverbal *gěi*’, which is categorized as a verbal affix.

- (25) wǒ shū-gěi tā yí kuài qián
 I lose-give 3sg one dollar money
 ‘I lost one dollar to him/her.’ (Li & Thompson 1981:375)

The other use of *gěi* which is missing in *hây* is the passive-marking or passive agent-marking function. The structural schema of the passive-marking *gěi* and some examples are given below.

Passive-marking use

Mandarin Chinese: [NP1 + *gěi*¹⁴ + NP2 + VP]

- (26) Lǐsī gěi Zhāngsān kànjiàn-le
 Lisi give Zhangsan see-ASP
 ‘Lisi was seen by Zhangsan.’ (Haspelmath 1990:48)
- (27) jīnyú gěi māo chī-le
 goldfish give cat eat-ASP
 ‘The goldfish was eaten by the cat.’ (Newman 1993b:471)

3.1.3 Summary

The syntactic properties and functions of *hây* and *gěi* are summarized in Tables 1 and 2 respectively. The syntactic category of *hây* and *gěi* in each construction and function is specified in parentheses under each structural schema in the rightmost column of each table.

Table 1: Functions and structural schemas of *hây*

No.	Construction type containing <i>hây</i>	Function of <i>hây</i>	Structural schema
1	ditransitive construction	ditransitive (main) verb	<i>hây</i> + NP1 + NP2 (lexical verb)
2	prepositional phrase	dative marker; benefactive marker	VP + _{pp} [<i>hây</i> + NP] (preposition)
3	causative construction	causative verb	NP1 + <i>hây</i> + NP2 + VP (causative verb)
4	simple sentence	malefactive marker	NP + V + <i>hây</i> (particle)
5	complex sentence	clause connector	_{s1} [NP1 + VP1] + <i>hây</i> + _{s2} [NP2 + VP2] (subordinator)

¹⁴ According to Xu (1994), the passive *gěi* is used in colloquial speech whereas *bèi*, the other passive marker, is used in formal speech. In addition, a verb which co-occurs with the passive *gěi* must be marked by the aspect marker *le*, otherwise the sentence with *gěi* will not be interpreted as a passive sentence.

Table 2: Functions and structural schemas of *gěi*

No.	Construction type containing <i>gěi</i>	Function of <i>gěi</i>	Structural schema
1	ditransitive construction	ditransitive marker	<i>gěi</i> + NP1 + NP2 (lexical verb)
			V- <i>gěi</i> + NP1 + NP2 (suffix)
2	prepositional phrase	dative marker	VP + _{pp} [<i>gěi</i> + NP] (preposition)
			_{pp} [<i>gěi</i> + NP] + VP (preposition)
		benefactive marker	_{pp} [<i>gěi</i> + NP] + VP (preposition)
3	causative construction	causative verb	NP1 + <i>gěi</i> + NP2 + V (causative verb and passive marker)
4	passive construction	passive marker	

Some observations can be made regarding the functions, the structural schemas, and the productivity of *hây* and *gěi* in the functions specified in the tables above as follows:

- (a) The clause connector use is possible for *hây* in Thai but is lacking for *gěi* in Mandarin Chinese.
- (b) The passive-marking use is possible for *gěi* in Mandarin Chinese but is lacking for *hây* in Thai.
- (c) The *gěi*-marked dative PP in Mandarin Chinese can occur both before and after the VP, whereas the *hây*-marked dative PP can occur only after the VP. That means there are two structural schemas of the dative *gěi*, whereas there is only one of the dative *hây*.
- (d) The *gěi*-marked benefactive PP in Mandarin Chinese can occur only before the VP.
- (e) The structural schemas of the causative and the passive *gěi* are identical.
- (f) The causative use of *hây* in Thai is productive, but that of *gěi* in Mandarin Chinese is not.

3.2 Constituent orders in Thai and Mandarin Chinese

In this section, we shall discuss the constituent orders in Thai and Mandarin Chinese with a special emphasis on the linear order of the complement and the modifier vis-a-vis the head in the two languages.

Typologically speaking, Thai is an SVO language. It exhibits many SVO language features, such as having the VO word order, having prepositions rather than postpositions, a modifier following a head, auxiliaries preceding a verb¹⁵ and complex sentences also having the SVO word order. Mandarin Chinese is more complicated because it exhibits both the SVO and SOV language features (Li & Thompson 1981). Many authors of reference grammars of Mandarin Chinese, such as Chu

¹⁵ Some auxiliaries in Thai precede while others follow main verbs.

(1998), Norman (1988), Ross & Ma (2006), and Sun (2006), state that the unmarked sentential word order in Mandarin Chinese is SVO.¹⁶ This point has been agreed upon by most grammarians of Mandarin Chinese. However, Li & Thompson (1981) claim that Mandarin Chinese exhibits both SVO and SOV language features.¹⁷ Greenberg (1963) advances the hypothesis that the order of the verb and the direct object tends to correlate with the order of the modified and the modifier. That is, if the direct object follows the verb, modifiers tend to follow the head or the modified. If the direct object precedes the verb, modifiers tend to precede the head or the modified. In Thai, an SVO language, the order of the modifier and the head corresponds with Greenberg's hypothesis; that is, the modifier follows the head as exemplified below. The head symbolized as (H) and the modifier symbolized as (M) in each sentence are underlined.

Thai

- (28) khăw mây mii ηən súu rót(H) mây(M)
 he not have money buy car new
 'He does not have money to buy a new car.'

- (29) khun pay(H) kòon(M)
 you go before
 'You go first.'

- (30) sômchay phææ aahăan(H) thîi sây phỏnchuurót(M)
 Somchay be allergic to food COMP add MSG
 'Somchay is allergic to the food that has MSG.'

If modifiers are adverbial clauses, they can occur either before or after the main clauses depending on pragmatic reasons, as shown in (31) and (32).

Thai

- (31) tỏnthîi sômchay ỏk pay(M) fỏn tỏk nỏk(H)
 when Somchay exit go rain fall hard
 'When Somchay went out, it was raining hard.'

- (32) fỏn tỏk nỏk(H) tỏnthîi sômchay ỏk pay(M)
 rain fall hard when Somchay exit go
 'It was raining hard when Somchay went out.'

The situation is different in Mandarin Chinese, which is also an SVO language. Adverbs, time phrases, and location phrases in Mandarin Chinese typically appear immediately in front of verbs and

¹⁶ The direct object can appear before the subject if it is emphasized. The preposed direct object is called a topicalized direct object.

¹⁷ Li & Thompson (1974) argue that Mandarin Chinese has undergone a historical change in word order from SVO to SOV. According to them, this word order change in Mandarin Chinese has been a slow process which began more than two millennia ago.

some of them can also appear at the sentence-initial position. These linguistic elements function as modifiers of verbs or verb phrases. As for adverbial clauses in Mandarin Chinese, they always occur before main clauses. The examples below illustrate the linear order of the linguistic elements just described.

Mandarin Chinese

- (33) tā yòu(M) lái le(H)
h/she also come ASP

‘H/she came again.’ (Sun 2006:193)

- (34) wǒ zuótiān(M) jìn chéng qù(H)
I yesterday into city go

‘I went to town yesterday.’ (Yip & Rimmington 1997:53)

- (35) tā zài huāyuán lǐ(M) gē cǎo(H)
s/he at garden in cut grass

‘S/he cut grass in the garden.’ (Yip & Rimmington 1997:61)

- (36) dāng wǒ huí jiā de shíhòu(M), lù-shàng chū-le chē-huò(H)
when I return home REL time, road-up happen-ASP car-crash

‘After I returned home, (there was) a car accident on the road.’ (Sun 2006:198)

In the case of the complement, this term has a special use in Chinese linguistics. Yip & Rimmington (1997:69) define the term ‘complement’ in Chinese grammar as ‘those elements of a sentence which come after the verb and which either describe the action of the verb or express its result’, such as *kàn jiàn* ‘to see’ (lit. look-see), *tīng-cuò* ‘mishear’ (lit. listen-wrong), *tíng zài chēfāng* ‘(car) be parked at a garage’ (lit. stop at garage), and *zhàn de hěn zhí* ‘stand very straight’ (lit. stand DE very straight). Notice that the complement in the sense just described occurs after the verb. The complement in another sense functions like the subject or object which completes the meaning of a verb. This sense of complement is generally used in linguistic works of any language. If a complement functions as the subject of a sentence, it precedes the verb both in Thai and Mandarin Chinese. If it functions as the object of a sentence, it follows the verb in both languages as shown below. Only the complement in the second sense is relevant to the phenomenon being examined in this paper. The symbol H stands for the head and C stands for the complement. From the examples below, it is apparent that the subject complement precedes the verb and the object complement follows the verb in both languages. That means the position of the complement in both languages corresponds with the SVO order.

Thai

- (37) kaan mây òkkamlan̄kaay(C) thamhây(H) râan̄kaay òonʔæw
NOM¹⁸ not exercise cause body weak

‘Not exercising makes the body weak.’

¹⁸ NOM stands for a nominalizer.

- (38) chăn mây rúu(H) wâa khăw cà[?] maa rǔu^u mây maa(C)
 I not know COMP he will come or not come
 ‘I don’t know whether he is coming or not.’

Mandarin Chinese

- (39) wǒmen zuò huōchē qù(C) hǎo(H) ba?
 we sit train go good PARTICLE
 ‘Let us go by train, shall we?’¹⁹ (Li & Thompson 1981:596)

- (40) wǒ bù zhīdào(H) tā lái bù lái(C)
 I not know 3sg come not come
 ‘I don’t know whether s/he is coming or not.’ (Li & Thompson 1981:556)

In summary, in case of the head and modifier, the constituent orders in Thai and Mandarin Chinese are different. Thai has the basic head-modifier order whereas Mandarin Chinese has the modifier-head one. On the other hand, in case of the head and object complement, the constituent orders in Thai and Mandarin Chinese are identical. Both languages have the head-complement order. Therefore, in Mandarin Chinese, the modifier appears before the head whereas the object complement appears after the head. On the other hand, both the modifier and the object complement appear after the head in Thai.

4. Effects of constituent orders on patterns of functional extension of *hây* and *gěi*

In this section, we shall point out how constituent orders in Thai and Mandarin Chinese bear on patterns of functional extension of *hây* and *gěi* in both languages. The constituent orders to be discussed in this section are those of a head vis-a-vis a modifier and those of a head vis-a-vis a complement. In order to simplify the phenomenon under investigation, we shall pose five relevant questions and will provide answers to them in terms of different constituent orders in Thai and Mandarin Chinese. The five questions are in turn extracted from the observations in (a)–(f) in §3.1.3, and are stated below.

1. Why does the benefactive [*gěi* + NP] occur only in the preverbal position, not the postverbal position, in Mandarin Chinese?
2. Unlike the benefactive [*gěi* + NP], the dative [*gěi* + NP] occurs both preverbally and postverbally in Mandarin Chinese. Why does the dative [*gěi* + NP] behave differently from the benefactive [*gěi* + NP]?
3. Why do the dative [*hây* + NP] and the benefactive [*hây* + NP] not occur in the preverbal position in Thai?
4. Why is the causative *gěi* not productive in Mandarin Chinese?

¹⁹ The more or less literal meaning of this sentence is *Is our going by train good?*. This literal meaning is pragmatically interpreted as a suggestion.

5. Why is *gěi* not used as a clause subordinator in Mandarin Chinese? In contrast, why is *hây* used as a clause subordinator in Thai? Moreover, why is the clause subordinator *hây* used highly productively in Thai?

Notice that questions 1–3 are concerned with the positions of the functionally extended *hây* and *gěi*, whereas questions 4–5 are concerned with the functional differences between the two morphemes. Question 4 concerns the difference in productivity of the causative *hây* and *gěi*, whereas question 5 concerns the absence of one extended function of *gěi*, namely, the clause subordinator function.

The first question is why the benefactive [*gěi* + NP] occurs only in the preverbal position, not the postverbal position, in Mandarin Chinese. In contrast, the benefactive [*hây* + NP] in Thai appears in the postverbal position only. In order to answer this question, we have to understand the role of the benefactive PP in a sentence. The benefactive PP in a sentence denotes a participant who or which benefits from the action denoted by the main verb, such as in (41).

- (41) Zhāngsān gěi wǒmen chàng yì shǒu gē
 Zhangsan give us sing one CLS song
 ‘Zhangsan sang a song for us.’

The VP constituent *chàng yì shǒu gē* ‘sang a song’ and the PP constituent *gěi wǒmen* ‘for us’ semantically stand in a valence relation with each other. They combine to form a VP construction. If we compare these two components, we can see that the VP *chàng yì shǒu gē* ‘sang a song’ is more autonomous than the PP *gěi wǒmen* ‘for us’ because the former does not conceptually presuppose the participant who benefits from this action whereas the latter presupposes that someone does something ‘for our sake’. The benefactive PP can be omitted from this sentence because it contributes an extra and peripheral piece of information to the sentence regarding who benefits from the agent’s action. It functions like an adverbial phrase modifying the main VP. Therefore, *chàng yì shǒu gē* ‘sang a song’ is considered an autonomous component, whereas *gěi wǒmen* ‘for us’ is a dependent one. Since the whole VP construction *gěi wǒmen chàng yì shǒu gē* ‘sang a song for us’ inherits the profile of an action from that of its autonomous component structure, namely *chàng yì shǒu gē* ‘sang a song’, the other component, which is a dependent PP, is considered a modifier according to Langacker (1987). Therefore, the preverbal benefactive [*gěi* + NP] matches the modifier-head constituent order in Mandarin Chinese. The postverbal benefactive [*gěi* + NP] would violate this constituent order in the language. Furthermore, since the preverbal benefactive [*gěi* + NP] functions as a modifier of the main verb of a sentence, it is not surprising that it can be omitted as in (42).

- (42) Zhāngsān chàng yì shǒu gē
 Zhangsan sing one CLS song
 ‘Zhangsan sang a song.’

The second question is why the dative [*gěi* + NP] behaves differently from the benefactive [*gěi* + NP] in Mandarin Chinese. That is, the dative [*gěi* + NP] occurs both preverbally and postverbally, whereas the benefactive [*gěi* + NP] occurs only preverbally. A transfer event in any language

is usually analyzed as consisting of three crucial participants, namely, a giver, a thing given, and a recipient. In normal circumstances, the three participants must be semantically present for a transfer event to be complete. However, it is noticeable that the recipient is in some contexts perceived as not semantically crucial as the other two participants as shown in *John donates blood every month*. In this sentence, we do not know who receives the blood John donates. As a matter of fact, it is not even important in this case who receives the blood. What is more important is that John gives his blood away for a good cause. This explains why the recipient is absent in this sentence. However, the recipient could be present in this sentence as in *John donates blood every month to people having accidents*. In this sentence, the semantic structure of the VP *donates blood every month* is in a valence relation showing notable A/D asymmetry with that of the dative PP *to people having accidents*. On comparing the conceptual autonomy and dependence of two components in this valence relation, we can see that the former component, that is, the semantic structure of the VP *donates blood every month*, is more autonomous than that of the latter, that is, *to people having accidents*, because the former can semantically stand on its own and does not semantically presuppose the latter. That means the autonomous component, namely *donates blood every month*, is the profile determinant of the composite structure *donates blood every month to people having accidents* because the profile of the composite structure is a VP, which is identical to that of the autonomous component. Since the dependent component in this sentence, namely the dative PP *to people having accidents*, is not the profile determinant of the composite structure, it is a modifier of the autonomous component according to Langacker's definition of the modifier.

On the other hand, the recipient in *John gave an expensive birthday present to his mother* can be perceived as a semantically crucial participant. In this sentence, the whole VP *gave an expensive birthday present to his mother* is a construction consisting of two components which are semantically in a valence relation showing notable A/D asymmetry. The two semantic components are (i) the event of giving a birthday present and (ii) the person who received the birthday present, namely John's mother. In this case, to identify which component is autonomous and which one is dependent according to *Cognitive Grammar* is not simple because it involves the notions of schematicity and elaboration site. Langacker (1987:304) defines the two notions as follows: 'In a typical valence relation with components X and Y, there is some substructure of X—referred to earlier as x_e —that corresponds to the profile of Y, such that x_e bears a relation of schematicity to Y as a whole. Since x_e is elaborated by Y, we can call it an elaboration site (or more briefly, e-site).' The notion of schematicity plays a crucial role in categorization in a taxonomic hierarchy. In a taxonomic hierarchy, there is categorizing relation between a superordinate node and a subordinate node such as that between the concept [FRUIT] and [ORANGE]. The concept [ORANGE] is compatible with [FRUIT] but has more specifications. The superordinate category is characteristically more abstract and has fewer specifications than the subordinate category. Since the subordinate category has more details, more specifications, and is more 'concrete' than the superordinate one, the subordinate category is called 'instantiation' and the superordinate is called 'schema'. The relation between X and Y is therefore called 'schematicity', which refers to relative precision and specification between the superordinate and subordinate categories. The schema is said to be 'elaborated' by an instantiation. In other words, the schema is said to be represented by a special case of the structure it describes. In the example above, the schema [FRUIT] is elaborated by [ORANGE], which is a special case or an instance of the former.

Let us look at the example under discussion, that is, John gave an expensive birthday present to his mother. This example contains two semantic structures that are in a valence relation with each other, namely, (i) [GAVE-AN-EXPENSIVE-BIRTHDAY-PRESENT] and (ii) [TO-HIS-MOTHER]. The giving event is not semantically complete in itself. In order for it to be semantically complete, it has to be elaborated by three entities filling the roles of an agent, a thing given, and a recipient. That means there must be three substructures in the structure of the giving event which correspond to these entities. These three semantic substructures are called ‘elaboration sites’ or briefly ‘e-sites’. On considering the semantic structure of the event of giving an expensive birthday present and that of [TO-HIS-MOTHER], which are in a valence relation with each other, we can see that there is a substructure of the former or an e-site which corresponds to the profile of a recipient. The semantic structure of the event of giving an expensive birthday present is not complete without the profile of [HIS-MOTHER] bearing the recipient role. Since [HIS-MOTHER] bears the recipient role which is formally marked by the preposition *to*, it becomes conceptually dependent on the transfer event to a certain degree. However, the transfer event is considered more dependent on the recipient than vice versa because the giving event by default conceptually requires three participants including the recipient. In other words, the giving event is elaborated by the latter. Therefore, we can conclude that the semantic structure [GAVE-AN-EXPENSIVE-BIRTHDAY-PRESENT] is a dependent component and [TO-HIS-MOTHER] is a more autonomous one in this valence relation.

According to Langacker’s definition of a complement, ‘In a construction showing notable A/D asymmetry and where the dependent component D is the profile determinant, the autonomous component A is the complement of D’ (Langacker 1987:487). In our example, the dependent component [GAVE-AN-EXPENSIVE-BIRTHDAY-PRESENT] is a profile determinant of the composite structure [GAVE-AN-EXPENSIVE-BIRTHDAY-PRESENT-TO-HIS-MOTHER]. Therefore, the autonomous component [TO-HIS-MOTHER] is a complement of the dependent one [GAVE-AN-EXPENSIVE-BIRTHDAY-PRESENT].

Our argument regarding the two English sentences *John donates blood every month* and *John gave an expensive birthday present to his mother* indicates that the dative constituent can function either as a complement or a modifier depending on its context. We therefore argue that a dative [*gěi* + NP] constituent, which expresses a participant receiving a thing in a transfer event, is located somewhere on a continuum between a complement and a modifier. A recipient of a transfer event is sometimes perceived as a semantically crucial participant for a transfer event to be complete as in *John gave an expensive birthday present to his mother*. This is because the transfer event is usually analyzed as consisting of three crucial participants, namely, a giver, a thing given, and a recipient. However, the recipient is in some contexts perceived as not as semantically crucial as the other two participants as in *John donates blood every month*. We argue that this situation holds true not only in English but also in other languages.

We can now come back to the second question, that is, why the dative [*gěi* + NP] occurs both preverbally and postverbally whereas the benefactive [*gěi* + NP] occurs only preverbally. As discussed at the end of §3.2, the modifier occurs preverbally and the complement occurs postverbally in Mandarin Chinese. Given the facts that the dative [*gěi* + NP] can occur both preverbally and postverbally in Mandarin Chinese and that a dative constituent can function as a complement and a modifier depending on its context as shown in English, we argue that the dative [*gěi* + NP] denoting a recipient in Mandarin Chinese fluctuates on the complement–modifier continuum. That means the dative [*gěi* + NP] can be perceived as a complement or a modifier depending on the context of

the situation. The notions of a complement and a modifier are no longer seen as clear-cut categories. The boundary between them is rather fuzzy. If the dative [*gěi* + NP] is felt to be a modifier rather than a complement, it occurs preverbally according to the modifier-head constituent order. On the other hand, if the dative [*gěi* + NP] is felt to be a complement rather than a modifier, it occurs postverbally according to the head-complement constituent order. Recall that Sanders & Uehara (2012) found that the dative [*gěi* + NP] occurs only preverbally in a speech corpus of Beijing Mandarin Chinese. This fact may suggest that the dative [*gěi* + NP] in spoken Beijing Mandarin Chinese is perceived to be modifier-like rather than complement-like. The examples below illustrate the preverbal dative [*gěi* + NP] in spoken Beijing Mandarin Chinese.

Data from the speech corpus of Beijing Mandarin Chinese used in Sanders & Uehara (2012).

- (43) méi gěi nǐ xiě
 not give you write
 ‘I haven’t written to you.’
- (44) wǒ gěi nǐmen shuō ya
 I give you (pl.) say PART
 ‘Let me tell you.’

Unlike the dative constituent, the benefactive one, which denotes an entity receiving some kind of benefit from an action, is always perceived as a peripheral participant. Preverbal prepositional phrases in Mandarin Chinese functioning as a modifier of the main verb in a sentence have higher chances to be omitted, as shown in (42).

The third question is why the dative and benefactive [*hây* + NP]’s do not occur preverbally in Thai. In the process of functional extension or grammaticalization across languages, a string of [V1 + NP1] + [V2 + NP2] is reanalyzed as [V + NP1] + [P + NP2] (Lord 1993). That is, the second verb is functionally extended and/or grammaticalized into a preposition marking a dative and benefactive NP. The PP functioning as a complement and a modifier occurs after the VP in Thai. Therefore, the fact that the dative and benefactive [*hây* + NP] constituents do not occur preverbally matches the predominant head-complement/modifier constituent order in Thai.

The fourth question is why the causative *gěi* is not productive in Mandarin Chinese. Notice that the causative *gěi* occurs in the same position as the benefactive *gěi* in Mandarin Chinese as shown below.

Causative construction

- (45) Zhāngsān gěi Lǐsì kàn
 Zhangsan give Lisi look
 ‘Zhangsan let Lisi look.’

Benefactive construction

- (46) Zhāngsān gěi wǒmen chàng yì shǒu gē
 Zhangsan give us sing one CLS song
 ‘Zhangsan sang a song for us.’

The fact that the causative *gěi* appears in the same position as the benefactive *gěi* bears two consequences. The first consequence is that the preverbal *gěi* in some cases can give rise to ambiguity between the causative and the benefactive readings, as shown in (47).

- (47) wǒ gěi nǐ kàn
I give you look
'I let you look.' (causative) or 'I look on your behalf.' (benefactive) (Newman 1996:20)

It is found that the other causative verbs *ràng* and *jiào* are used more frequently than *gěi* in order to avoid ambiguity, as exemplified in (48) (Yap & Iwasaki 1998).

- (48) tā *gěi/ràng/jiào háizi shuì-jiào
s/he CAUSE child sleep
'She let the child sleep.'

The second consequence noted by Yap & Iwasaki (1998) is that the causative *gěi* tends to be analyzed as the benefactive marker rather than the causative verb as exemplified in (49).

- (49) tā gěi wǒ zào-le yí dòng fángzi
s/he give me build-ASP one CLS house
'S/he built a house for me.' (preferred)
'S/he had me build a house.' (awkward)

In the preferred interpretation in (49), the benefactive constituent *gěi wǒ* 'for me' functions as a modifying constituent of the following VP. The analysis of the preverbal [*gěi* + NP] as the benefactive constituent, which modifies the following VP, is compatible with the predominant modifier-head constituent order in Mandarin Chinese.

The last question is why *gěi* is not used as a clause subordinator in Mandarin Chinese but *hây* is in Thai. Moreover, why is the clause subordinator *hây* used highly productively in Thai? A complex construction consists of a main clause and a subordinating clause. Most subordinating clauses function as modifiers of the main VPs. Sentences (50) and (51) show the order of a main clause and an adverbial clause in Thai and Mandarin Chinese.

Mandarin Chinese

- (50) wǒ zài mǎngǔ de shíhòu, wǒ jiàndào nǐ
I be at Bangkok while I meet you
'When I was in Bangkok, I met you.'

Thai

- (51) a. tɔɔnthîi phôm yùu krungthêp, phôm phóp khun
when I be at Bangkok I meet you
'When I was in Bangkok, I met you.'

- b. phǒm phóp khun tɔ̌nthîi phǒm yùu krungthêp
 I meet you when I be at Bangkok
 ‘I met you when I was in Bangkok.’

The adverbial clauses in (50) and (51) function as temporal settings for the events denoted by the main clauses to take place. The adverbial clause in Mandarin Chinese appears before the main clause, but not after it, whereas that in Thai can appear either before or after the main clause as discussed in §3.2. The main clause functions as the head and the adverbial clause functions as the modifier. It is apparent that the order of the adverbial clause and the main clause in Mandarin Chinese is that of modifier-head. Therefore, we can see that the modifier-head constituent order is prevalent both at the phrasal level and at the clausal one in Mandarin Chinese. As for Thai, the order of the two clauses can either be modifier-head or head-modifier.

The ordering patterns exhibited by Mandarin Chinese and Thai in (50) and (51), respectively, represent the two major cross-linguistic ordering patterns discovered by Diessel (2001). He examines the ordering distribution of main and adverbial clauses from a cross-linguistic perspective and shows that the ordering of the two types of clauses correlates with the position of the subordinator in the subordinate clause. In languages in which adverbial clauses have a final subordinator (such as *de shíhòu* ‘while’ in (50) in Mandarin Chinese), adverbial clauses tend to precede the main clause/predicate (ADVC-S/VP order). On the other hand, in languages in which adverbial clauses are marked by initial subordinators (such as *tɔ̌nthîi* ‘when’ in (51) in Thai), adverbial clauses occur both sentence-initially (ADVC-S/VP order) and sentence-finally (S/VP-ADVC).²⁰ It is apparent that the final subordinator structure in Mandarin Chinese reflects its original [relative clause + head] structure, modifier–modified order, of the language. In the same manner, the initial subordinator structure in Thai reflects its original [head + relative clause] structure, modified–modifier order, of the language.

Furthermore, Diessel (2001) makes observations that in initial subordinator languages, where both sentence-initial and sentence-final adverbial clauses are possible, the distribution of adverbial clauses varies with their meaning or function, and that purpose adverbial clauses always follow main clauses. T&U (2008) argue that the connective *hây* in Thai, which introduces a subordinate clause in the schema [NP1 VP1 *hây* NP2 VP2], is derived, extended, or grammaticalized from the causative *hây*.²¹ Semantically, they have an animate matrix subject which has the intention that an event takes place. In addition, the referent denoted by the animate matrix subject of the *hâys* in the three constructions, namely, the purposive, jussive, and the complementation constructions, indirectly causes another event to take place. On this basis, we can argue that the three constructions can be considered ‘purpose adverbial clauses’ in Diessel’s sense to varying degrees.

²⁰ Diessel (2001) suggests that discourse-pragmatic functions typically favor adverbial clauses appearing in the sentence-initial position (ADVC-S/VP order), but that ‘there is a general tendency to arrange clauses in such an order that the conjunction (or connecting affix) occurs between the two elements that it combines’ (Diessel 2001:448). Thus, these two motivations collaborate in final subordinator languages such as Mandarin Chinese, while they compete in initial subordinator languages such as Thai.

²¹ Recall that, unlike *hây*, the causative use of *gěi* is not productive, which can constitute another reason why the connective *gěi* is not productive in the language.

Since Thai allows the head-modifier constituent order, it is possible for the causative *hây* which appears after the main verb to be reanalyzed as a subordinator introducing a subordinating clause functioning as a modifier of the main verb occurring on its left. In other words, the functional extension or the grammaticalization of the causative *hây* results in the reanalysis of the serial verb construction with the structure [NP1 VP1 *hây* NP2 VP2] as the bi-clausal structure [_{S1}[NP1 VP1] *hây*_(connector) S2[NP2 VP2]], in which the second clause is a subordinate one. The reanalyzed construction matches the head-modifier constituent order in the language. In addition, as mentioned earlier, Diessel observes that, in initial-subordinator languages, where both sentence-initial and sentence-final adverbial clauses are possible, purpose adverbial clauses always follow main clauses. It is therefore not surprising that the connective use of *hây* introducing purpose subordinate clauses of various types in Thai is apparently productive because the position of the connective *hây* matches the cross-linguistic ordering pattern observed by Diessel (2001).

In contrast, since Mandarin Chinese allows the modifier-head order and has a clause-final subordinator, the position after the main verb is not a suitable site for a verb to be reanalyzed as a subordinator like *hây* in the schema [NP1 VP1 *hây* NP2 VP2] in Thai. Therefore, the main clause/predicate-adverbial order (S/VP-ADVC order) is less likely to take place in Mandarin Chinese than in Thai. This is the reason why we do not find the subordinator *gěi* occurring after the main verb in Mandarin Chinese.

5. Conclusion

This paper presents commonalities and differences in the functional extension of *hây* in Thai and *gěi* in Mandarin Chinese and argues how different constituent orders in the two languages bear on patterns of functional extension of the two verbs in the two languages. Although the constituent order is used as the main factor to account for functional extension patterns of *hây* and *gěi*, it is cautioned in §2.1 that we should not fall into what Langacker (1987) calls ‘exclusionary fallacy’. That means we should not assume that the functional extension patterns of *hây* and *gěi* are exclusively accounted for by the constituent order rules in Thai and Mandarin Chinese. In addition to constituent order, there may be other factors that can be used to account for patterns of functional extension of *hây* and *gěi*. It is interesting to examine in future research what other factors are operative and how they interact with the constituent order factor in accounting for functional extension patterns of the two verbs. It is also interesting to test whether the constituent order ‘hypothesis’ can account for this phenomenon of the verbs for ‘give’ in other dialects of Mandarin Chinese and other isolating languages of Southeast Asia. Other interesting phenomena which can be examined against the constituent order hypothesis include the preverbal and postverbal positional variants of other functionally extended prepositional phrases in Thai and/or Mandarin Chinese, such as *zài*-marked phrases in Mandarin Chinese, and other functionally extended and/or grammaticalized verbs such as *bǎ* in Mandarin Chinese and its counterpart in Thai.

As mentioned in §3.2, Greenberg (1963) postulates the hypothesis that the linear order of the verb and the direct object, which is in other words the order of the head and the complement, tends to correlate with the order of the modified and the modifier. That is, the VO order tends to correlate with the head-modifier order and the OV order with the modifier-head order. Our analysis suggests

that the two types of constituent order patterns, namely the order of verb and direct object on the one hand and that of the head and modifier on the other, constitute two separate parameters in the constituent order typology. The ‘two separate parameters’ hypothesis is supported by the conceptual and functional differences between the complement and the modifier as explicated in *Cognitive Grammar* advanced by Langacker (1987). It is worth examining in future research whether the two separate parameters hypothesis holds true in languages other than Thai and Mandarin Chinese.

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[Received 14 February 2014; revised 26 April 2014; accepted 27 June 2014]

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動詞「給」在功能性延展中對於組合詞排列順序的影響：泰語與華語的比較研究

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泰語為修飾詞後置，華語為前置。本研究探討泰語 *hây* 與華語 *gěi* 在功能性延展中的不同。觀察發現：一、*hây* 可連接子句，*gěi* 不可。二、*gěi* 可標示被動，*hây* 不可。三、*gěi* 標示的與格置於動詞前或後，*hây* 置於動詞後。四、北京語料庫中 *gěi* 標示的與格置於動詞前。五、*gěi* 標示的受益格置於動詞前。六、*gěi* 標示的使役與被動結構一致。七、*hây* 常被用於標示使役，*gěi* 不常。研究顯示，泰語的修飾詞後置與功能性延展語素置於動詞後相關，而華語與置於動詞前相關。

關鍵詞：語法化，語序，動詞「給」，泰語，華語