

Decoding the Multifunctional Usages of *gen* in Chinese^{*}

Stephen Yun-hsiang Chuang (莊雲翔)¹ and Elizabeth Zeitoun (齊莉莎)²

*Kinmen Senior High School*¹

*Academia Sinica*²

Due to the grammaticalization processes it has undergone, Chinese *gen* ‘with, and’ now displays multi-functional usages. Originally a noun meaning ‘heel’, it has come to function as a verb meaning ‘to follow’. It can also serve as a preposition marking comitativity, reciprocity, unidirectionality, and as a conjunction entailing either a distributive or a collective reading. Syntactic tests have been proposed since the early 1970s to disambiguate the grammatical status of *gen* as a preposition and as a conjunction. While incorporating findings of earlier contributions, the present paper shows that each function and meaning of *gen* is influenced in large part by verbal semantics, i.e., verbal semantics and the syntactic position of modifying elements interact closely and give rise to the different interpretations and functions of *gen*. At one end of the scale, *gen* functions only as a conjunction; at the other end, it can be analyzed as a verb, as a preposition and as a conjunction; between these two ends, it can be treated as a preposition and a conjunction.

Key words: grammaticalization, conjunction, preposition, coordination, verbal semantics, comitativity

1. Introduction

Stassen (2000) and Haspelmath (2004) point out that the world’s languages vary in terms of their strategy to mark coordination and comitativity, i.e., while some languages exhibit a distinction between coordination and comitativity, others do not. As further

^{*} The present paper represents an abridged and revised version of Stephen Y. Chuang’s MA thesis (Chuang 2007), written under the co-supervision of Elizabeth Zeitoun and Lillian M. Huang. This research was financially supported by a project from the National Science Council (NSC 95-2411-H-158-004 — A Typological Study of Coordination and Comitativity in French, Mandarin and Some Formosan Languages) conducted in collaboration with the French CNRS, co-directed by Lillian M. Huang and Elizabeth Zeitoun in Taiwan and by Marie-Claude Paris in France. We are grateful to Marie-Claude Paris, Lillian M. Huang, Lily I. Hsu, Stacy F. Teng, Shu-chuan Tseng, Jackson T.-S. Sun, Cheng-sheng Liu, One-Soon Her and two anonymous reviewers for their comments and suggestions at different stages of this study.

shown in Paris (2005), English and French, for instance, display a morpho-syntactic contrast between coordination, which is marked respectively by *and* and *et* as in (1a-b),¹ and comitativity, which is manifested by *with* and *avec* as in (2a-b).

- (1) a. John and Mary read some novels.
- b. Jean et Marie lisent des romans.
- (2) a. John read some novels with Mary.
- b. Jean lit des romans avec Marie.

Chinese, on the other hand, makes use of a single marker, i.e. *gen*, to encode coordination and comitativity. As illustrated in (3),² *gen* is ambiguous: it can be perceived as a conjunction ‘and’ or as a preposition ‘with’ marking comitativity.

- (3) 張三 跟 瑪莉 讀 了 一些 小說。
- Zhangsan *gen* Mali du le yixie xiaoshuo.
- Zhangsan *GEN* Mali read PFV some novel
- i. ‘Zhangsan and Mali read some novels.’
- ii. ‘Zhangsan read some novels with Mali.’

Gen can also function as a verb, as exemplified in (4).³

- (4) 我 跟 著 他。
- Wo *gen* zhe ta.
- 1SG *GEN* DUR 3SG
- ‘I am following him.’

¹ Unless mentioned otherwise, all the examples provided in this paper were collected or constructed by the first author. We have also consulted *Academia Sinica Balanced Corpus of Modern Chinese* (<http://www.sinica.edu.tw/SinicaCorpus/>) and Dr. Tseng Shu-chuan’s *Archives and Linguistic Representations of Spoken Taiwan Mandarin* (<http://mmc.sinica.edu.tw/>).

² The abbreviations used in this paper include: ASP: Aspect, CL: Classifier, COLL: Collective, COM: Comitative, CONJ: Conjunction, COP: Copula, DIST: Distributive, DUR: Durative, EXP: Experiential, G: Goal-oriented, INTR: Intransitive, Non-unidir: Non-unidirectional, NP: Noun Phrase, PFV: Perfective, PREP: Preposition, REC: Reciprocal, S: Source-oriented, TR: Transitive, V: Verb, VO: Verb Object compound, UNIDIR: Unidirectional, 1SG: First Person Singular, and 3SG: Third Person Singular.

³ It has been demonstrated that *gen* was originally a noun meaning ‘heel’ (Furukawa 2000) and that through metaphorical change, it came to be used as a verb meaning ‘to follow’ before further undergoing two grammaticalization processes, the first from a verb to a preposition meaning ‘with’ and the second from a preposition to a conjunction meaning ‘and’ (Liu & Peyraube 1994).

The multifunctional usages of *gen* have aroused the interest of many scholars (*cf.* Teng 1970, Tang 1990, Furukawa 2000, and Paris 2005, 2007a among others). It has been shown that in subject position, *gen* can function as a preposition or a conjunction; in object position, it can only be treated as a conjunction. When *gen* functions as a preposition, it can serve to mark comitativity (e.g., X *gen* Y *chuqu* ‘X went out with Y’), reciprocity (e.g., X *gen* Y *chaojia* ‘X and Y quarreled’) and unidirectionality (e.g., X *gen* Y *jieshu* ‘X borrowed a book from Y’). When *gen* functions as a conjunction, it serves to conjoin two NPs to form a larger syntactic unit. Two different readings need to be distinguished. When *gen* co-occurs with *dou* ‘all’, it entails a distributive reading. When *gen* co-occurs with *yiqi* ‘together’, it has a collective reading. In ambiguous examples, a number of tests (e.g., insertion of a temporal adverb, negation, clefting, anaphora and relativization) can be used to draw a distinction between *gen* as a preposition and *gen* as a conjunction (entailing either a distributive or a collective reading, see Paris 2005 for details).

In this paper, we adopt an approach which integrates the findings briefly summarized above but highlights the interface between syntax and semantics by arguing that verbal semantics needs also to be taken into consideration to account for the different functions/meanings of *gen*, i.e., the behavior of *gen* is influenced in large part by verbal semantics. As an illustration, consider (5a-b), where the interpretation of *gen* is different though it occurs in the same construction, i.e. *wo gen Lisi*. In (5a), the verb *xihuan* ‘to like’ is a stative verb; *gen* serves to conjoin two NPs and is treated as a conjunction. In (5b), the verb *jie* ‘to borrow’ is a source-oriented verb; *gen* is more likely to be analyzed as a preposition which introduces the *source* of the denoted event. These findings can be further corroborated and substantiated by the syntactic position of temporal adverbs such as *zuotian* ‘yesterday’ and the co-occurrence of *dou* ‘all’ and *yiqi* ‘together’, as demonstrated in earlier studies, *cf.* (5c-d).

- (5) a. 我 跟 李四 喜歡 打 籃球。
 Wo *gen* Lisi xihuan da lanqiu.
 1SG *GEN* Lisi like hit basketball
 ‘Lisi and I like to play basketball.’
- b. 我 跟 李四 借 了 三 百 元。
 Wo *gen* Lisi jie le san bai yuan.
 1SG *GEN* Lisi borrow PFV three hundred dollar
 ‘I borrowed three hundred dollars from Lisi.’
- c. 我 跟 李四 都 喜歡 打 籃球。
 Wo *gen* Lisi dou xihuan da lanqiu.
 1SG *GEN* Lisi all like hit basketball
 ‘Both Lisi and I like to play basketball.’

- d. 我 以前 跟 李四 借 了 三 百 元。
 Wo yiqian *gen* Lisi jie le san bai yuan.
 1SG before *GEN* Lisi borrow PFV three hundred dollar
 ‘I’ve previously borrowed three hundred dollars from Lisi.’

The purpose of this paper is to show that a scale can be set up, whereby verbal semantics and the syntactic position of modifying elements interact closely and give rise to the different interpretations and functions of *gen*. At one end of the scale, *gen* functions only as a conjunction; at the other end, it can be analyzed as a verb, as a preposition and as a conjunction; between these two ends, it can be treated as a preposition and a conjunction. We will only consider sentences of the type *X gen Y Verb* where ambiguity is more likely to arise and exclude sentences like *X Verb gen Y Verb* (e.g., 我喜歡跟李四打籃球 *Wo xihuan gen Lisi da lanqiu*, ‘I like to play basketball with Lisi’), where *gen* can only be analyzed as a preposition.

In §2, we propose a verbal taxonomy that accounts for the proper interpretation of *gen*, whose behavior is largely determined by the verb type it co-occurs with (§3). Section 4 summarizes our findings.

2. Verbal taxonomy

Verbs are classified along the following parameters:

- (i) Verbal semantics: verbs are classified in terms of (a) stativity, (b) reciprocity, and (c) motion.
- (ii) Verb subcategorization: verbs are distinguished according to whether they take an object, a clausal complement or they form a VO compound.
- (iii) Aspectual variations: verbs are also differentiated in terms of whether they are marked for aspect.

We briefly explain these three parameters in the following subsections.

2.1 Verbal semantics

This verbal taxonomy basically takes a binary-distinction approach⁴ toward verbal semantics and posits that verbs can be classified into:

⁴ Whenever irrelevant for the present discussion, however, binary features will not be used.

- (i) stative vs. non-stative verbs
- (ii) reciprocal vs. non-reciprocal verbs
- (iii) motion vs. non-motion verbs

2.1.1 Stative vs. non-stative verbs

As has been shown in previous classification frameworks (e.g., Vendler 1967, Chao 1968, Teng 1977, and Her 1991 among others), verbs can be basically divided into stative and non-stative verbs. Stative verbs usually refer to mental states or physical characteristics and do not involve any action. They include verbs like *xihuan* ‘to like’, *haipa* ‘to be afraid’, *xiwang* ‘to hope’, *yongyou* ‘to possess’, *renwei* ‘to think’, *gao* ‘to be tall’, *qiong* ‘to be poor’, *kaixin* ‘to be happy’, *hao* ‘to be good’, *man* ‘to be slow’, etc. Stative verbs also include copular predicates which mainly consist of nouns such as *xuesheng* ‘student’, and *laoshi* ‘teacher’ introduced by the copula *shi* ‘to be’, as in *shi xuesheng* ‘to be a student’, and *shi laoshi* ‘to be a teacher’.

Non-stative verbs, however, constitute a complex category, which encompasses different types of verbs, e.g., motion verbs such as *lai* ‘to come’, and *qu* ‘to go’, non-motion verbs such as *tiaowu* ‘to dance’, *he* ‘to drink’, and *xie* ‘to write’, unidirectional verbs, such as *xue* ‘to learn’, *jie* ‘to borrow’, and *jiang* ‘to speak’.

2.1.2 Reciprocal vs. non-reciprocal verbs

Following Lichtenberk (1994), reciprocal verbs are defined as requiring two (or more) participants involved in the same action. These two participants may either act one upon the other, e.g., *chaojia* ‘to quarrel’, and *xiang’ai* ‘to love each other’ or take part in the same action together, e.g., *taolun* ‘to discuss’, and *hezuo* ‘to collaborate’. Verbs like *taolun* and *hezuo* are termed “collective” verbs in this study.⁵

As mentioned in Liu (2000:123), in Mandarin Chinese, the common way of marking reciprocity is to add an adverbial (e.g., *xianghu* or *huxiang* ‘mutually’) in front of the verb. Thus, verbs that are originally not reciprocal can be made reciprocal through the addition of *hu* or *huxiang* ‘mutually’, e.g., *taoyan* ‘to dislike’ vs. *huxiang taoyan* ‘to dislike each other’, *ma* ‘to scold’ vs. *huma* ‘to scold each other’. Reciprocal verbs can be stative in nature, as in *huxiang xihuan* ‘to like each other’ or non-stative, as in *huxiang chaoxiao* ‘to laugh at each other’.⁶

⁵ These verbs are termed “collective” verbs, based on Frajzyngier (2000) and are treated as a subtype of reciprocal verbs. We find that they also behave like reciprocal verbs with respect to the interpretation of *gen*.

⁶ We will show below that *stative* and *non-stative reciprocal* verbs behave the same with respect to the interpretation of *gen*.

A certain type of stative reciprocal verb is headed by the copula *shi* taking a nominal predicate such as *fuqi* ‘couple’, *tongxue* ‘classmate’ and *pengyou* ‘friend’, as in *shi fuqi* ‘to be husband and wife’. These nominal predicates serve to establish a “converse”⁷ relationship between the two referents conjoined by *gen* (see Lichtenberk 2000).

2.1.3 Motion/Non-motion verbs

Motion verbs involve spatial movement from one place to another while non-motion verbs do not feature any movement. Motion verbs include verbs like *qu* ‘to go’, *lai* ‘to come’, and *dao* ‘to reach’. Non-motion verbs include verbs like *chi* ‘to eat’, *shui* ‘to sleep’, *zuo* ‘to sit’, *shuo* ‘to say’ and *jie* ‘to borrow’.

Certain non-motion verbs like *shuo* ‘to say’ and *jie* ‘to borrow’ behave differently with respect to the interpretations of *gen* as opposed to other non-motion verbs like *zuo* ‘to sit’ and *shui* ‘to sleep’. When *gen* co-occurs with verbs like *shuo* ‘to say’ and *jie* ‘to borrow’, it can mark a unidirectional relationship between the two referents. Accordingly, these verbs are labeled “unidirectional” verbs here. Unidirectional verbs can be further divided into two types of verbs:

- (i) Source-oriented verbs: *jie* ‘to borrow’, *xue* ‘to learn’, *lesuo* ‘to extort’, *mai* ‘to buy’, and *yao* ‘to ask for’.
- (ii) Goal-oriented verbs: *shuo* ‘to say’, *jieshi* ‘to explain’, *xuanbu* ‘to announce’, *jieshao* ‘to introduce’, *tiqi* ‘to mention’ and *baogao* ‘to report’.

2.2 Verb subcategorization

In terms of subcategorization frame, verbs can be basically defined as taking an object or not, i.e. transitive or intransitive.

Stative verbs which are intransitive encompass verbs like *gao* ‘to be tall’, *xiao* ‘to be small/little’, *hao* ‘to be good’, *huai* ‘to be bad’, *kuai* ‘to be fast’, and *man* ‘to be slow’. Stative verbs which are transitive include verbs like *xihuan* ‘to like’, *ai* ‘to love’, *taoyan* ‘to dislike’, *haipa* ‘to fear’, and *xiangxin* ‘to believe’.

Non-stative verbs which are intransitive include verbs like *tiao* ‘to jump’, *youyong* ‘to swim’, and *gongzuo* ‘to work’. Non-stative verbs which are transitive include verbs like *da* ‘to beat’, *chi* ‘to eat’, *jie* ‘to borrow’, *shuo* ‘to say’, and *taolun* ‘to discuss’. Non-stative transitive verbs can also form a VO compound, e.g., *jiehun* ‘to get married’, *dajia* ‘to fight’, *qianshou* ‘to hold hands’, *jiewen* ‘to kiss each other’, and *jianmian* ‘to meet’.

⁷ When two referents are in a converse relationship, “A is related in a certain way to B, and B is conversely related to A” (Lichtenberk 2000:34).

2.3 Aspectual variations

Aspectual encoding in reciprocal verbs can play a role with regard to the function of *gen*. In (6a), *gen* in the reciprocal event *jiehun* ‘to get married’ serves as a conjunction entailing a collective reading. Therefore, the insertion of *dou* ‘all’ yields the ungrammaticality of sentence as in (6b).

- (6) a. 張三 跟 瑪莉 結婚。
 Zhangsan *gen* Mali jiehun.
 Zhangsan *GEN* Mali get-married
 ‘Zhangsan and Mali got married.’
- b. *張三 跟 瑪莉 都 結婚。
 Zhangsan *gen* Mali dou jiehun.
 Zhangsan *GEN* Mali all get-married

However, when an aspect marker is added to the compound, the reciprocal verbal compound does not necessarily require a subject with plural reference, as shown in (7a-b). In (7b) — as opposed to (6b) — the insertion of *dou* is possible and yields a distributive meaning.

- (7) a. 張三 跟 瑪莉 昨天 結 了 婚。
 Zhangsan *gen* Mali zuotian jie le hun.
 Zhangsan *GEN* Mali yesterday tie PFV marriage
 ‘Zhangsan and Mali got married yesterday.’
- b. 張三 跟 瑪莉 昨天 都 結 了 婚。
 Zhangsan *gen* Mali zuotian dou jie le hun.
 Zhangsan *GEN* Mali yesterday all tie PFV marriage
 ‘Both Zhangsan and Mali got married yesterday (separately).’

2.4 Summary of the verbal taxonomy

Integrating the above factors (i.e. verbal classification, verbal subcategorization and aspectual variations), the verbal taxonomy can be schematized as follows:

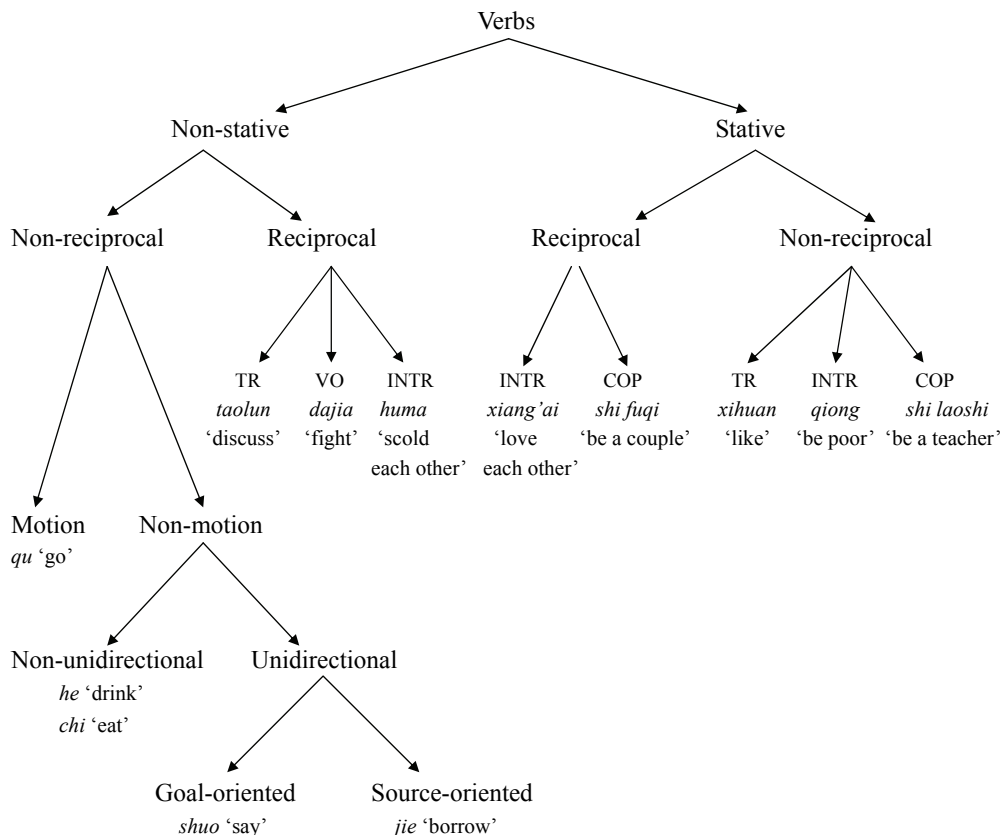


Figure 1: Verbal taxonomy to be used to account for the multi-functions of *gen*

3. Interaction between different types of verbs and the behavior of *gen*

As shown in §2.1, verbs are divided into two major categories, i.e., stative and non-stative verbs, each of which can be subdivided into reciprocal and non-reciprocal verbs. In the following sections, we show how these different types of verbs interact closely with the interpretations of *gen*. In §3.1, we examine *gen* in co-occurrence with stative verbs. In §3.2, we focus on *gen* in co-occurrence with non-stative verbs.

3.1 *Gen* co-occurring with stative verbs

3.1.1 *Gen* in co-occurrence with stative non-reciprocal verbs

When *gen* occurs with stative non-reciprocal verbs, as in (8a-c), its behavior is quite unitary: it can only function as a conjunction.

- (8) a. 張三 跟 李四 是 老師。
 Zhangsan *gen* Lisi shi laoshi.
 Zhangsan *GEN* Lisi COP teacher
 ‘Zhangsan and Lisi are teachers.’
- b. 張三 跟 李四 很 窮。
 Zhangsan *gen* Lisi hen qiong.
 Zhangsan *GEN* Lisi very poor
 ‘Zhangsan and Lisi are very poor.’
- c. 張三 跟 李四 喜歡 打 籃球。
 Zhangsan *gen* Lisi xihuan da lanqiu.
 Zhangsan *GEN* Lisi like hit basketball
 ‘Zhangsan and Lisi like to play basketball.’

In these three examples, the insertion of an adverb such as *yiqian* ‘before’ between *Zhangsan* and *Lisi* gives rise to the ungrammaticality of the sentence in question. Compare the grammaticality of (9a-c) and (9a'-c'):

- (9) a. *張三 以前 跟 李四 是 老師。
 Zhangsan yiqian *gen* Lisi shi laoshi.
 Zhangsan before *GEN* Lisi COP teacher
- a'. 張三 跟 李四 以前 是 老師。
 Zhangsan *gen* Lisi yiqian shi laoshi.
 Zhangsan *GEN* Lisi before COP teacher
 ‘Zhangsan and Lisi were teachers before.’
- b. *張三 以前 跟 李四 很 窮。
 Zhangsan yiqian *gen* Lisi hen qiong.
 Zhangsan before *GEN* Lisi very poor
- b'. 張三 跟 李四 以前 很 窮。
 Zhangsan *gen* Lisi yiqian hen qiong.
 Zhangsan *GEN* Lisi before very poor
 ‘Zhangsan and Lisi were very poor before.’
- c. *張三 以前 跟 李四 喜歡 打 籃球。
 Zhangsan yiqian *gen* Lisi xihuan da lanqiu.
 Zhangsan before *GEN* Lisi like hit basketball
- c'. 張三 跟 李四 以前 喜歡 打 籃球。
 Zhangsan *gen* Lisi yiqian xihuan da lanqiu.
 Zhangsan *GEN* Lisi before like hit basketball
 ‘Zhangsan and Lisi liked to play basketball before.’

As pointed out above, as a conjunction, *gen* can have two different readings: a distributive or a collective reading. Since only *dou* ‘all’ can be inserted (see (10a-c)), *gen* can only be given a distributive reading.

- (10) a. 張三 跟 李四 以前 都 是 老師。
 Zhangsan *gen* Lisi yiqian dou shi laoshi.
 Zhangsan *GEN* Lisi before all COP teacher
 ‘Both Zhangsan and Lisi were teachers before.’
- a'. *張三 跟 李四 以前 一起 是 老師。
 Zhangsan *gen* Lisi yiqian yiqi shi laoshi.
 Zhangsan *GEN* Lisi before together COP teacher
- b. 張三 跟 李四 以前 都 很 窮。
 Zhangsan *gen* Lisi yiqian dou hen qiong.
 Zhangsan *GEN* Lisi before all very poor
 ‘Both Zhangsan and Lisi were very poor before.’
- b'. *張三 跟 李四 以前 一起 很 窮。
 Zhangsan *gen* Lisi yiqian yiqi hen qiong.
 Zhangsan *GEN* Lisi before together very poor
- c. 張三 跟 李四 以前 都 喜歡 打 籃球。
 Zhangsan *gen* Lisi yiqian dou xihuan da lanqiu.
 Zhangsan *GEN* Lisi before all like hit basketball
 ‘Both Zhangsan and Lisi liked to play basketball before.’
- c'. *張三 跟 李四 以前 一起 喜歡 打 籃球。
 Zhangsan *gen* Lisi yiqian yiqi xihuan da lanqiu.
 Zhangsan *GEN* Lisi before together like hit basketball

It is important to note, however, that when *gen* co-occurs with certain stative transitive verbs like *yongyou* ‘to own’ and *xuyao* ‘to need’, the conjunction *gen* can be given two different interpretations (distributive or collective), as shown in (11a-a') and (11b-b'):

- (11) a. 張三 跟 瑪莉 都 擁有 五棟 房子。
 Zhangsan *gen* Mali dou yongyou wudong fangzi.
 Zhangsan *GEN* Mali all own five-CL house
 ‘Both Zhangsan and Mali own five houses.’

- a'. 張三 跟 瑪莉 一共 擁有 五棟 房子。
 Zhangsan *gen* Mali yigong yongyou wudong fangzi.
 Zhangsan *GEN* Mali altogether own five-CL house
 'Zhangsan and Mali own five houses in total.'
- b. 張三 跟 瑪莉 都 需要 兩瓶 水。
 Zhangsan *gen* Mali dou xuyao liangping shui.
 Zhangsan *GEN* Mali all need two-CL water
 'Both Zhangsan and Mali need two bottles of water.'
- b'. 張三 跟 瑪莉 一共 需要 兩瓶 水。
 Zhangsan *gen* Mali yigong xuyao liangping shui.
 Zhangsan *GEN* Mali altogether need two-CL water
 'Zhangsan and Mali need two bottles of water in total.'

On the other hand, when no additional markers such as *dou* 'all' and *yigong* 'altogether' occur, *gen* is more likely to be perceived as entailing a collective reading. Consider the following sentences in (12a-b).

- (12) a. 張三 跟 瑪莉 擁有 五棟 房子。
 Zhangsan *gen* Mali yongyou wudong fangzi.
 Zhangsan *GEN* Mali own five-CL house
 'Zhangsan and Mali own five houses (in total).'
- b. 張三 跟 瑪莉 需要 兩瓶 水。
 Zhangsan *gen* Mali xuyao liangping shui.
 Zhangsan *GEN* Mali need two-CL water
 'Zhangsan and Mali need two bottles of water (in total).'

3.1.2 *Gen* in co-occurrence with stative reciprocal verbs

In co-occurrence with stative reciprocal verbs, the behavior of *gen* becomes complex.

When *gen* co-occurs with nominal predicates such as *shi fuqi* 'to be husband and wife', and *shi tongxue* 'to be classmates', as in (13a), it can be analyzed as a conjunction, as in (13b), or as a preposition, as in (13c).

- (13) a. 張三 跟 瑪莉 是 夫妻。
 Zhangsan *gen* Mali shi fuqi.
 Zhangsan *GEN* Mali COP couple
 'Zhangsan and Mali are husband and wife.'

- b. 張三 跟 瑪莉 以前 是 夫妻。
 Zhangsan *gen* Mali yiqian shi fuqi.
 Zhangsan *GEN* Mali before COP couple
 ‘Zhangsan and Mali were husband and wife before.’
- c. 張三 以前 跟 瑪莉 是 夫妻。
 Zhangsan yiqian *gen* Mali shi fuqi.
 Zhangsan before *GEN* Mali COP couple
 ‘Zhangsan was Mali’s husband before.’

As a conjunction, *gen* can only be given a collective reading; the addition of *dou* ‘all’ causes the ungrammaticality of the sentence in question, as shown in (13d).

- (13) d. *張三 跟 瑪莉 (以前) 都 是 夫妻。
 Zhangsan *gen* Mali (yiqian) dou shi fuqi.
 Zhangsan *GEN* Mali (before) all COP couple

When *gen* co-occurs with stative reciprocal verbs formed by the addition of the reciprocal markers *huxiang*, *xianghu* or the reduced forms *xiang*, *hu* ‘mutual’ to a stative verb, as in (14a), it can only function as a conjunction (collective reading). The insertion of the temporal adverb *yiqian* ‘before’ in (14b-c) illustrates this point. Furthermore, the insertion of *dou*, as in (14d), leads to the ungrammaticality of the sentence in question.

- (14) a. 張三 跟 瑪莉 互相 喜歡。
 Zhangsan *gen* Mali huxiang xihuan.
 Zhangsan *GEN* Mali mutual like
 ‘Zhangsan and Mali like each other.’
- b. 張三 跟 瑪莉 以前 互相 喜歡。
 Zhangsan *gen* Mali yiqian huxiang xihuan.
 Zhangsan *GEN* Mali before mutual like
 ‘Zhangsan and Mali liked each other before.’
- c. *張三 以前 跟 瑪莉 互相 喜歡。
 Zhangsan yiqian *gen* Mali huxiang xihuan.
 Zhangsan before *GEN* Mali mutual like
- d. *張三 跟 瑪莉 以前 都 互相 喜歡。
 Zhangsan *gen* Mali yiqian dou huxiang xihuan.
 Zhangsan *GEN* Mali before all mutual like

Table 1 summarizes the above discussion.

Table 1: Functions of *gen* co-occurring with stative verbs

Stative verbs			Functions of <i>gen</i>			Co-occurrence constraints	
			Conj		Prep	<i>dou</i> 'all'	<i>yiqi</i> 'together'
			Distributive reading	Collective reading			
Non-Reciprocal	Copula		+	–	–	+	–
	Intransitive		+	–	–	+	–
	Tr	Others	+	–	–	+	–
		<i>you</i> 'to have'	+	+	–	+	– <i>yigong</i> 'altogether'
Reciprocal	Copula		–	+	+(Rec)	–	–
	Intr <i>huxiang</i> 'mutual'		–	+	–	–	–

3.2 *Gen* co-occurring with non-stative verbs

In this section, we deal with all the types of non-stative verbs included in the above verbal semantic framework. Section 3.2.1 is devoted to *gen* in co-occurrence with non-stative reciprocal verbs and §3.2.2 focuses on *gen* in co-occurrence with the non-stative non-reciprocal verbs.

3.2.1 *Gen* co-occurring with non-stative reciprocal verbs

One type of non-stative reciprocal verb takes the overt markers *huxiang*, *xianghu* or the reduced forms *xiang*, *hu* 'mutual' as shown in (15a). When *gen* co-occurs with such reciprocal verbs, it can only function as a conjunction (collective reading) as in (15b-c), but never as a preposition, see (15d).

- (15) a. 張三 跟 李四 互 罵。
 Zhangsan *gen* Lisi hu ma.
 Zhangsan *GEN* Lisi mutual scold
 'Zhangsan and Lisi scold each other.'
- b. 張三 跟 李四 常常 互 罵。
 Zhangsan *gen* Lisi changchang hu ma.
 Zhangsan *GEN* Lisi often mutual scold
 'Zhangsan and Lisi often scold each other.'

- c. *張三 跟 李四 都 常常 互 罵。
 Zhangsan *gen* Lisi dou changchang hu ma.
 Zhangsan *GEN* Lisi all often mutual scold
- d. *張三 常常 跟 李四 互 罵。
 Zhangsan changchang *gen* Lisi hu ma.
 Zhangsan often *GEN* Lisi mutual scold

Non-stative reciprocal verbs which take the form of VO compound as in (16a) or which are collective verbs as in (17a) behave alike. In co-occurrence with such reciprocal verbs, *gen* can function either as a conjunction (collective reading) — compare the grammaticality of (16b-c) and (17b-c) — or as a preposition, *cf.* (16d) and (17d).

- (16) a. 張三 跟 瑪莉 吵架。
 Zhangsan *gen* Mali chaojia.
 Zhangsan *GEN* Mali quarrel
 ‘Zhangsan and Mali quarrel.’
- b. 張三 跟 瑪莉 常常 吵架。
 Zhangsan *gen* Mali changchang chaojia.
 Zhangsan *GEN* Mali often quarrel
 ‘Zhangsan and Mali often quarrel.’
- c. *張三 跟 瑪莉 都 常常 吵架。
 Zhangsan *gen* Mali dou changchang chaojia.
 Zhangsan *GEN* Mali all often quarrel
- d. 張三 常常 跟 瑪莉 吵架。
 Zhangsan changchang *gen* Mali chaojia.
 Zhangsan often *GEN* Mali quarrel
 ‘Zhangsan often quarrels with Mali.’
- (17) a. 張三 跟 瑪莉 討論 這件 事。
 Zhangsan *gen* Mali taolun zhejian shi.
 Zhangsan *GEN* Mali discuss this-CL matter
 ‘Zhangsan and Mali discuss this matter.’
- b. 張三 跟 瑪莉 常常 討論 這件 事。
 Zhangsan *gen* Mali changchang taolun zhejian shi.
 Zhangsan *GEN* Mali often discuss this-CL matter
 ‘Zhangsan and Mali often discuss this matter.’
- c. *張三 跟 瑪莉 都 常常 討論 這件 事。
 Zhangsan *gen* Mali dou changchang taolun zhejian shi.
 Zhangsan *GEN* Mali all often discuss this-CL matter

- d. 張三 常常 跟 瑪莉 討論 這件事。
 Zhangsan changchang *gen* Mali taolun zhejian shi.
 Zhangsan often GEN Mali discuss this-CL matter
 ‘Zhangsan often discusses this matter with Mali.’

It is interesting to note that when an aspect marker is added to VO compounds or collective verbs, the conjunction *gen* can also entail a distributive reading. Compare (18a-b) and (19a-b).

- (18) a. *張三 跟 瑪莉 都 吵架。
 Zhangsan *gen* Mali dou chaojia.
 Zhangsan GEN Mali all quarrel
 b. 張三 跟 瑪莉 都 吵 了 架。
 Zhangsan *gen* Mali dou chao le jia.
 Zhangsan GEN Mali all disturb PFV quarrel
 ‘Both Zhangsan and Mali have quarreled (with someone).’
 (19) a. *張三 跟 瑪莉 都 討論 這件事。
 Zhangsan *gen* Mali dou taolun zhejian shi.
 Zhangsan GEN Mali all discuss this-CL matter
 b. 張三 跟 瑪莉 都 討論 過 這件事。
 Zhangsan *gen* Mali] dou taolun guo zhejian shi.
 Zhangsan GEN Mali all discuss EXP this-CL matter
 ‘Both Zhangsan and Mali have discussed this matter (with someone).’

When aspect is encoded into the VO compound *chaojia* ‘to quarrel’ or the collective verb *taolun* ‘to discuss’, the two referents conjoined by *gen* no longer share a reciprocal relationship: the denoted reciprocal event becomes distributive and refers to each referent separately (another participant in this reciprocal event is left unspecified).

3.2.2 *Gen* co-occurring with non-stative non-reciprocal verbs

When *gen* co-occurs with non-stative non-reciprocal verbs, the interpretation of *gen* is varied. Among non-stative non-reciprocal verbs, we note that there is a binary distinction between motion (*cf.* §3.2.2.1) and non-motion verbs, and among non-motion verbs, a distinction exists between non-unidirectional verbs (*cf.* §3.2.2.2) and unidirectional verbs (*cf.* §3.2.2.3).

3.2.2.1 *Gen* co-occurring with motion verbs

When *gen* co-occurs with motion verbs like *qu* ‘to go’, the meaning of *gen* is likely to be ambiguous between a preposition marking comitativity and a verb meaning ‘to follow’. Sentence (20a) entails two readings, paraphrased in (20b) and (20c):

- (20) a. 張三 昨天 跟 李四 去 台北。
 Zhangsan zuotian *gen* Lisi qu taibei.
 Zhangsan yesterday *GEN* Lisi go Taipei
 b. 張三 昨天 跟 著 李四 去 台北。
 Zhangsan zuotian *gen* zhe Lisi qu taibei.
 Zhangsan yesterday follow DUR Lisi go Taipei
 ‘Zhangsan followed Lisi to Taipei yesterday.’
 c. 張三 昨天 跟 李四 一起 去 台北。
 Zhangsan zuotian *gen* Lisi yiqi qu taibei.
 Zhangsan yesterday *GEN* Lisi together go Taipei
 ‘Zhangsan went to Taipei with Lisi yesterday.’

Besides functioning ambiguously as a verb and as a preposition, *gen* is also likely to be analyzed as a conjunction (entailing either a collective or distributive reading). As an illustration, consider (21a-b):

- (21) a. 張三 跟 李四 昨天 一起 去 台北。
 Zhangsan *gen* Lisi zuotian yiqi qu taibei.
 Zhangsan *GEN* Lisi yesterday together go Taipei
 ‘Zhangsan and Lisi went to Taipei together yesterday.’
 b. 張三 跟 李四 昨天 都 去 台北。
 Zhangsan *gen* Lisi zuotian dou qu taibei.
 Zhangsan *GEN* Lisi yesterday all go Taipei
 ‘Both Zhangsan and Lisi went to Taipei yesterday.’

In other words, when *gen* co-occurs with motion verbs such as *qu* ‘to go’, *lai* ‘to come’ and *paodao* ‘to run to’, it can be taken to embody three functions: verb, preposition, conjunction (entailing two different readings, collective or distributive).

3.2.2.2 *Gen* co-occurring with non-motion/non-unidirectional verbs

When *gen* co-occurs with non-motion verbs, like *chi* ‘to eat’, it is unambiguously

interpreted as a preposition marking comitativity, *cf.* (22a). The addition of *yiqi* in (22b) renders this meaning even clearer.

- (22) a. 我 昨天 跟 他 吃 晚餐。
 Wo zuotian *gen* ta chi wancan.
 1SG yesterday *GEN* 3SG eat dinner
 ‘I had dinner with him yesterday.’
- b. 我 昨天 跟 他 一起 吃 晚餐。
 Wo zuotian *gen* ta yiqi chi wancan.
 1SG yesterday *GEN* 3SG together eat dinner
 ‘I had dinner with him yesterday.’

Besides functioning as a preposition, when *gen* co-occurs with these non-motion verbs, it can also be treated as a conjunction; the collective/distributive readings depend on the occurrence of *yiqi* ‘together’ or *dou* ‘all’, as shown in (23a-b).

- (23) a. 我 跟 他 昨天 一起 吃 晚餐。
 Wo *gen* ta zuotian yiqi chi wancan.
 1SG *GEN* 3SG yesterday together eat dinner
 ‘He and I had dinner together yesterday.’
- b. 我 跟 他 昨天 都 吃 了 晚餐。
 Wo *gen* ta zuotian dou chi le wancan.
 1SG *GEN* 3SG yesterday all eat PFV dinner
 ‘Both he and I had dinner yesterday.’

3.2.2.3 *Gen* co-occurring with unidirectional verbs

When the preposition *gen* co-occurs with certain non-motion verbs, it can serve to indicate a one-way relationship between the two referents (Teng 1970), as in (24a-b).

- (24) a. 張三 昨天 跟 李四 借 了 三本 書。
 Zhangsan zuotian *gen* Lisi jie le sanben shu.
 Zhangsan yesterday *GEN* Lisi borrow PFV three-CL book
 ‘Zhangsan borrowed three books from Lisi yesterday.’
- b. 張三 昨天 跟 李四 說 了 一些 話。
 Zhangsan zuotian *gen* Lisi shuo le yixie hua.
 Zhangsan yesterday *GEN* Lisi say PFV some word
 ‘Zhangsan said some words to Lisi yesterday.’

In the above two examples, *gen* serves to introduce the source and the goal of the denoted event. When *gen* co-occurs with source-oriented verbs like *jie* ‘to borrow’, *xue* ‘to learn’, and *mai* ‘to buy’, as in (24a), it introduces another referent which is the *source* of the denoted event. When *gen* co-occurs with goal-oriented verbs like *shuo* ‘to say’, *jieshi* ‘to explain’, and *xuanbu* ‘to announce’, as in (24b), it introduces another referent which is the *goal* of the denoted event.

Note, however, that if *yiqi* is added, *gen* serves as a comitative preposition instead. Compare (24) and (25):

- (25) a. 張三 昨天 跟 李四 一起 借 了 書。
 Zhangsan zuotian *gen* Lisi yiqi jie le shu.
 Zhangsan yesterday *GEN* Lisi together borrow PFV book
 ‘Zhangsan, together with Lisi, borrowed books yesterday.’
 b. 張三 昨天 跟 李四 一起 說 了 一些 話。
 Zhangsan zuotian *gen* Lisi yiqi shuo le yixie hua.
 Zhangsan yesterday *GEN* Lisi together say PFV some word
 ‘Zhangsan, together with Lisi, said some words yesterday.’

Besides, it is possible for *gen* in these cases to function also as a conjunction entailing either a collective reading as in (26a-b) or a distributive reading as in (26c-d).

- (26) a. 張三 跟 李四 昨天 一起 借 了 書。
 Zhangsan *gen* Lisi zuotian yiqi jie le shu.
 Zhangsan *GEN* Lisi yesterday together borrow PFV book
 ‘Zhangsan and Lisi borrowed books together yesterday.’
 b. 張三 跟 李四 昨天 一起 說 了 一些 話。
 Zhangsan *gen* Lisi zuotian yiqi shuo le yixie hua.
 Zhangsan *GEN* Lisi yesterday together say PFV some word
 ‘Zhangsan and Lisi said some words together yesterday.’
 c. 張三 跟 李四 昨天 都 借 了 書。
 Zhangsan *gen* Lisi zuotian dou jie le shu.
 Zhangsan *GEN* Lisi yesterday all borrow PFV book
 ‘Both Zhangsan and Lisi borrowed books yesterday.’
 d. 張三 跟 李四 昨天 都 說 了 一些 話。
 Zhangsan *gen* Lisi zuotian dou shuo le yixie hua.
 Zhangsan *GEN* Lisi yesterday all say PFV some word
 ‘Both Zhangsan and Lisi said some words yesterday.’

In other words, when *gen* co-occurs with unidirectional verbs, it can function as a preposition marking comitativity, a preposition marking unidirectionality or a conjunction (entailing a distributive or collective reading).

3.2.3 Summary

We have shown that when *gen* co-occurs with non-stative verbs, the meanings of *gen* are varied. When *gen* co-occurs with non-stative reciprocal verbs, the interpretations of *gen* are similar to those of *gen* in co-occurrence with stative reciprocal verbs. On the other hand, when *gen* co-occurs with non-stative non-reciprocal verbs, *gen* basically stands to mean one of two possibilities: it can function as a preposition or as a conjunction (two readings: collective or distributive). Furthermore, when it co-occurs with motion verbs, it is likely to be perceived as a verb and when it co-occurs with unidirectional verbs, it can develop another function, i.e. marking a unidirectional relationship. Table 2 provides a summary of this section.

Table 2: Functions of *gen* co-occurring with non-stative verbs

Non-stative verbs			Functions of <i>gen</i>						Co-occurrence restrictions	
			Conj		Prep			V	<i>dou</i>	<i>yiqi</i>
			Dist	Coll	Rec	Com	Unidir			
Reciprocal	Intr	<i>huxiang</i> 'mutual'	–	+	–	–	–	–	–	–
	VO	–ASP	–	+	+	–	–	–	–	–
	Compound	+ASP	+	+	+	–	–	–	+	+
	Transitive	–ASP	–	+	+	–	–	–	–	–
	(Collective)	+ASP	+	+	+	–	–	–	+	+
Non-reciprocal	Motion		+	+	–	+	–	+	+	+
	Non-motion	Non-unidir	+	+	–	+	–	–	+	+
		Unidir	S	+	–	+	+	–	+	+
			G	+	–	+	+	–	+	+

3.3 A binary-distinction analysis at two levels

The behavior of *gen* is subject to the following two parameters, stativity and reciprocity:

(i) When *gen* co-occurs with *stative non-reciprocal* verbs like *qiong* 'to be poor' and *xihuan* 'to like', *gen* can only serve as a conjunction (only one reading: distributive). In co-occurrence with some *measure* or *possessive* verbs (stative/non-reciprocal) such as

you ‘to have, to own’, *gen* can function as a conjunction entailing either a distributive or a collective reading.

(ii) When *gen* co-occurs with *reciprocal* verbs, whether *stative* or *non-stative*, *gen* can usually function either as a preposition or as a conjunction (collective reading), although reciprocal verbs formed by *huxiang* or *xianghu* ‘mutual’ make *gen* function only as a conjunction (only one reading: collective). In co-occurrence with *VO compound* or *collective* verbs marked for aspect, *gen* can also function as a conjunction entailing a distributive reading.

(iii) When *gen* co-occurs with *non-stative non-reciprocal* verbs, the meanings of *gen* are varied. *Gen* can basically serve as a preposition or as a conjunction (two readings possible: distributive or collective). When *gen* co-occurs with *motion* verbs, it is said to retain some verbal traits and can be perceived as a verb. When *gen* co-occurs with certain *non-motion/unidirectional verbs* like *shuo* ‘to say’ and *jie* ‘to borrow’, *gen* as a preposition not only can function as a comitative marker but can also serve to indicate a unidirectional relationship between the two referents.

The two levels of analyses can be schematically represented by Figure 3. Table 3, which combines Table 1 and Table 2, presents in a more comprehensive manner how *gen* behaves in co-occurrence with stative and non-stative verbs.

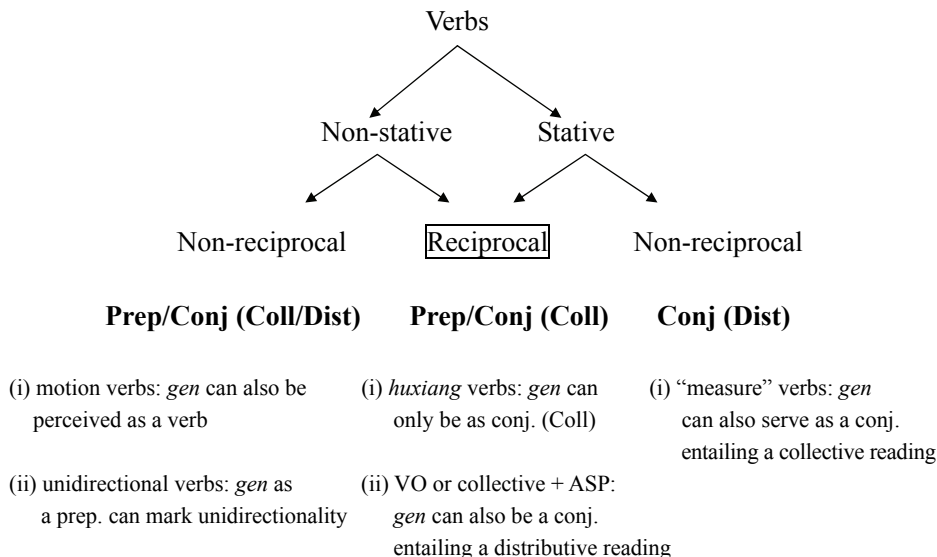


Figure 2: Interpretations of *gen* under a two-level analysis

Table 3: Functions of *gen* co-occurring with stative and non-stative verbs

Types of verbs			Functions of <i>gen</i>						Co-occurrence restrictions		
			Conj		Prep			V	<i>dou</i>	<i>yiqi</i>	
			Dist	Coll	Rec	Com	Unidir				
Stative verbs											
Non-reciprocal	Copula		+	–	–	–	–	–	+	–	
	Intransitive		+	–	–	–	–	–	+	–	
	Tr	Others	+	–	–	–	–	–	+	–	
		<i>you</i> ‘to have’	+	+	–	–	–	–	+	–	
Reciprocal	Copula		–	+	+	–	–	–	–	–	
	Intr	<i>huxiang</i> ‘mutual’	–	+	–	–	–	–	–	–	
Non-stative verbs											
Reciprocal	Intr	<i>huxiang</i> ‘mutual’	–	+	–	–	–	–	–	–	
	VO Compound	–ASP	–	+	+	–	–	–	–	–	
		+ASP	+	+	+	–	–	–	+	+	
	Transitive (Collective)	–ASP	–	+	+	–	–	–	–	–	
		+ASP	+	+	+	–	–	–	+	+	
Non-reciprocal	Motion		+	+	–	+	–	+	+	+	
	Non-motion	Non-unidir	+	+	–	+	–	–	+	+	
		Unidir	S	+	+	–	+	+	–	+	+
			G	+	+	–	+	+	–	+	+

4. Conclusion

It has been shown in the past that:

(i) Chinese uses *gen* as a way to encode comitativity and coordination. This leads to the ambiguity of *gen* in some sentences.

(ii) It is possible to distinguish the ambiguous functions and meanings of *gen* by means of syntactic and semantic tests (insertion of a temporal adverb, negation, clefting, anaphora, and relativization).

(iii) As a preposition, *gen* can also serve to mark unidirectionality and reciprocity in addition to comitativity.

With an attempt to incorporate these earlier contributions into the present paper, we bring forth a model to account for the different behaviors of *gen*. By way of explicit illustration, we take recourse in two figures. Figure 3 features a graded scale, which

includes seven positions from (a) to (g) whereby *gen* co-occurs with different types of verbs and shows different behaviors. Figure 4 integrates this graded scale into our proposed verbal taxonomy and indicates the position at the bottom of each verb type.

VERB/PREP/CONJ				PREP/CONJ		CONJ	
	(a) <i>qu</i> 'go'	(b) <i>chi</i> 'eat'	(c) <i>jie</i> 'borrow'	(d) <i>dajia</i> 'fight'	(e) <i>xiang'ai</i> 'love each other'	(f) <i>you</i> 'have'	(g) <i>qiong</i> 'be poor'
Verb type	Non-stative			Non-stative/Stative		Stative	
Function	Non-reciprocal			Reciprocal		Non-reciprocal	
Verb	+	–	–	–	–	–	–
Prep (Com)	+	+	+	–	–	–	–
Prep (Unidir)	–	–	+	–	–	–	–
Prep (Rec)	–	–	–	+	–	–	–
Conj (Coll)	+	+	+	+	+	+	–
Conj (Dist)	+	+	+	–	–	+	+

Figure 3: Behavior of *gen*

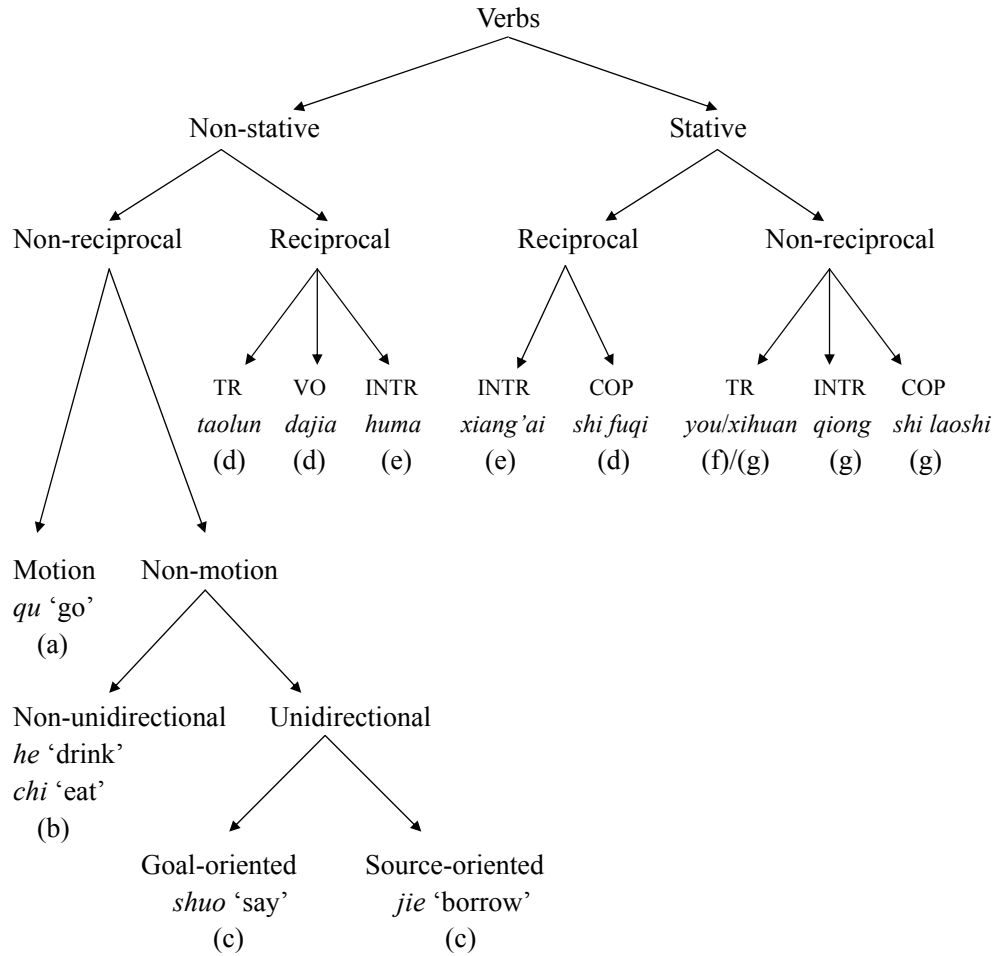


Figure 4: Behaviour of *gen* within our verbal taxonomy

References

- Chao, Yuen Ren. 1968. *A Grammar of Spoken Chinese*. Berkeley: University of California Press.
- Chuang, Stephen Yun-hsiang. 2007. *A Semantic and Syntactic Study of gen in Taiwan Mandarin*. Taipei: National Taiwan Normal University MA thesis.
- Frajzyngier, Zygmunt. 2000. Coding of the reciprocal function: two solutions. *Reciprocals: Form and Function*, ed. by Zygmunt Frajzyngier & Traci S. Curl, 179-194. Amsterdam & Philadelphia: John Benjamins.
- Furukawa, Yutaka. 2000. 'Gen' zi de yuyi zhixiang ji qi renzhi jieshi [The semantic orientation and cognitive interpretation of *gen*]. *Yuyan Jiaoxue yu Yanjiu* [Language Teaching and Linguistic Studies] 2000.3:37-44.
- Haspelmath, Martin. 2004. Coordinating constructions: an overview. *Coordinating Constructions*, ed. by Martin Haspelmath, 3-39. Amsterdam & Philadelphia: John Benjamins.
- Her, One-Soon. 1991. *Grammatical Functions and Verb Subcategorization in Mandarin Chinese*. Taipei: Crane.
- Lakoff, George, and Stanley Peters. 1969. Phrasal conjunction and symmetric predicates. *Modern Studies in English*, ed. by David A. Reibel & Sanford A. Schane, 113-142. Englewood Cliffs: Prentice-Hall.
- Lichtenberk, Frantisek. 1994. Reflexives and reciprocals. *The Encyclopedia of Language and Linguistics*, ed. by R. E. Asher & J. M. Y. Simpson, 3504-3509. Oxford & New York: Pergamon Press.
- Lichtenberk, Frantisek. 2000. Reciprocals without reflexives. *Reciprocals: Form and Function*, ed. by Zygmunt Frajzyngier & Traci S. Curl, 31-62. Amsterdam & Philadelphia: John Benjamins.
- Liu, Jian, and Alain Peyraube. 1994. History of some coordinative conjunctions in Chinese. *Journal of Chinese Linguistics* 22.2:179-201.
- Liu, Mei-chun. 2000. Reciprocal marking with deictic verbs *come* and *go* in Mandarin. *Reciprocals: Form and Function*, ed. by Zygmunt Frajzyngier & Traci S. Curl, 123-131. Amsterdam & Philadelphia: John Benjamins.
- Paris, Marie-Claude. 2004. On parts of speech in contemporary Chinese (and elsewhere). Paper presented at the Syntactic Categories and their Interpretation in Chinese: A Workshop on the Syntax and Semantic of Chinese. Budapest: Research Institute of Linguistics, Hungarian Academy of Science.
- Paris, Marie-Claude. 2005. Mandarin *gen* and French *et/avec*: another look at distributivity and collectivity. Paper presented at the 3rd International Conference in Contrastive Semantics and Pragmatics, September 16-18, 2005. Shanghai: Shanghai International Studies University.

- Paris, Marie-Claude. 2007a. L'interaction entre *gen* et la négation en chinois contemporain. *CLAIX* 20:147-166.
- Paris, Marie-Claude. 2007b. Nouveau regard sur "Le problème linguistique des prépositions et la solution chinoise". *Combat pour les langues du monde, Hommage à Claude Hagège, sous la responsabilité de M. M. J. Fernandez-Vest*. Collection Grammaire et Cognition 4 & 5: 401-410. Paris: L'Harmattan.
- Paris, Marie-Claude. 2008. On parts of speech in Chinese: *gen*. *The Linguistic Review* 25.3-4:347-366.
- Paris, Marie-Claude. 2010. Mandarin *gen* and French *et/avec*: another look at distributivity and collectivity. *Contrasting Meaning in Languages of the East and West*, ed. by Dingfang Shu & Ken Turner, 517-530. Oxford & New York: Peter Lang.
- Stassen, Leon. 2000. AND-languages and WITH-languages. *Linguistic Typology* 4.1:1-54.
- Tang, Ting-chi. 1990. *Studies in Chinese Syntax*. Taipei: Student Book.
- Teng, Shou-hsin. 1970. Comitative versus phrasal conjunction. *Papers in Linguistics* 2.2:315-358.
- Teng, Shou-hsin. 1977. *A Semantic Study of Transitivity Relations in Chinese*. Taipei: Student Book.
- Vendler, Zeno. 1967. *Linguistics in Philosophy*. Ithaca: Cornell University Press.