

Mandarin Chinese Words and Parts of Speech

A Corpus-based Study

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7 V: Verbs

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7 V: Verbs

An effective classification of verbs should be underlined by a clear articulation of the goals and motivations for classification. Since we (Chen et al. 1988) envision the most fundamental step in natural language processing (NLP) is to infer the sentential semantics from the head (i.e. verb), specifying the required arguments has become the most crucial part of verbal classification. Basically, the essential information that NLP systems can benefit from includes numbers, forms and the semantic roles of necessary arguments of verbs. Based on our analysis, we propose the classification framework of verbs by classifying verbs with similar features into the same group, (see Figure 7.1).¹

7.1 Principles of Verb Classification

The classification of verbs is, by nature, multifaceted. Firstly, verbs are not classified solely based on their lexical meanings; for example, verbs like 「賣」 ‘to sell’ and 「叫賣」 ‘to hawk’ are semantically similar but different in syntactic behavior. The former is a ditransitive verb, and the latter an intransitive action verb. Secondly, verbs are not classified into different classes just because of the phrasal forms of their arguments. For example, 「盤問」 ‘to interrogate’ can take an NP or a sentence as its argument, but it is classified into the sentential object verb class, as verbs taking sentential objects typically also take NP objects. In sum, our classification of verbs is operable and can be described by a flowchart (see Figure 7.1).

In the following, we will introduce five principles; the criteria for each class will be illustrated in later sections.

7.1.1 Activity or State

The activity or state of verbs is the first criteria based on which verbs are classified into three main types: active, stative and sorting verbs.² When having difficulties in judging a verb’s semantic status in terms of activity or stativity, one should also consider its syntactic behavior and characteristics:

- A can be modified by degree adverbs such as 「很」, 「非常」
- B can be modified by progressive aspect markers such as 「在」 or 「正在」

- C can occur in imperative sentences
- D can follow verbs such as 「勸」, 「強迫」, 「決定」, etc.
- E can co-occur with manner-modifying modifiers such as 「小心」, 「仔細」, etc.

Verbs with characteristics described in rules, B, C, D and E are action verbs, and those with characteristics of rule A belong to stative verbs. It is important to note that the rules are ordered in terms of priority. For example, any verbs that fit into both A and D are still identified as stative verbs (e.g. 「愛」 ‘to love’); verbs that fit into both A and B, which are typical syntactic features for stative and action verbs, respectively, are identified stative verbs.

7.1.2 Transitivity of Verbs

Once the distinction between activity and state is made, verbs are further classified as transitive, intransitive, and quasi-transitive. The transitivity of verbs is defined by the number of required arguments. Intransitive verbs require only one argument, while transitive verbs require at least two. A quasi-transitive verb, in contrast, is a specific type of transitive verb as its second required participant role does not have the typical behavior of a syntactic argument and hence does not have the same argument structure as a transitive verb.

As the classification is based on semantic considerations, it does not follow that intransitive verbs would never syntactically act in a transitive way. Figure 7.1 shows clearly that intransitives can still take a second argument, whose occurrence is mostly derived from locative inversion (Chang 1990), causative construction, unaccusativity, or as a type of object of the same source (cf. 2.2.1 and 2.2.8).

7.1.3 Phrasal Forms of Arguments

Depending on the phrasal form of the arguments, transitive verbs are further divided into verbs taking NP, VP and sentential objects. Order is crucial in the process of judging whether the phrasal form of the object argument is a sentence (VE, VK), the VP (VF, VL), or general transitive verbs (VC, VD, VJ) (see Figure 7.1). This allows us to have exhaustive and unique classification but also allows us to fully describe the grammatical behaviors of each verb by assigning them to different sub-classes depending on their additional argument structure variations. In consequence, verbs like 「盤問」 ‘to interrogate’ will be assigned to VE (ditransitive verbs taking sentential object), notwithstanding its ability to take both VP and NP, as in 128 (b) and (c).

- (128) (a) 他盤問我你昨天到哪兒去了(S)
 ‘He interrogated me on where I went yesterday.’
- (b) 他盤問我到哪兒去了(VP)
 ‘He interrogated me on where did (I) go.’

- (c) 他盤問我你的行蹤(NP)
'He interrogated me on your whereabouts.'

7.1.4 *Thematic Roles of Arguments*

Verbs with the same forms and number of arguments will be sub-classified based on the semantic roles of their arguments. Lin (1992) provided a detailed account of the selection and labeling of thematic roles, and also pointed out issues for further discussion. For example, the GOAL is a large class that can be further divided using semantic features when necessary; the EXPERIENCER and the THEME can be considered as sub-classes of OBJECT with the [+perceptive] feature.

There are some challenging cases when applying the current system of thematic role assignment. For instance, the assignment of either EXPERIENCER or OBJECT to the subject argument of a stative verb can be confusing (VJ1 vs VJ2; VK1 vs VK2).³ The following shows our heuristics for assigning the EXPERIENCER role for so-called mental verbs.

- (a) mental state: 生氣 'be angry', 憂愁 'be worrisome', 滿意 'be satisfied', 慌張 'to panic', 疏忽 'to be negligent', 激動 'to be agitated', 想念 'to miss';
 (b) cognitive state: 了解 'to comprehend', 知道 'to know', 知情 'to be in the known', 外行 'to be an layman', 精通 'to be expert in', 認識 'to be acquainted', 熟悉 'to be familiar';
 (c) memory state: 記得 'to remember', 忘記 'to forget' and⁴
 (d) evaluation state: 信任 'to trust', 尊敬 'to respect', 敬而遠之 'to keep at distance (out of respect/fear)', 鄙視 'to despise', 仰慕 'to admire', 肯定 'to affirm', 漠視 'to ignore'.

7.1.5 *Syntactic Behaviors of Verbs*

Verbs with the same thematic roles are further classified based on their significant syntactic behaviors. For example, the thematic role of action verbs with a single object (VC3) is <AGENT THEME>, but they can be further classified into VC31, VC32, and VC33, according to their varied syntactic behaviors.

VC31 verbs whose object can not precede locative PP (e.g. 買 'to buy').

VC32 verbs whose object can precede locative PP but disallows locative inversion (e.g. 護送 'to escort').

VC33 verbs whose object can precede locative PP, and allows locative inversion (e.g. 放 'to put').

The types of sentence construction taken into consideration when classifying the verbs are specified in the following rules:

- (a) Subject – Verb (- Object);
 (b) ba-, bei- construction;

- (c) PPs as modifiers are not taken into account, except when the locative PP follows the object. Most modifiers in Chinese precede the verbs, so it should suffice to specify it in the adjunct precedence rules of the modifiers (and not the verbs). However, the location of locative PPs following the object are dependent on verbs and needs to be specified as such.
- (d) Causative construction, unaccusative construction, locative inversion construction, and comparison construction.

Constructions that are not accounted for in this study include argument-omission construction, topic construction, serial verb construction (Mo et al. 1991) and descriptive clauses (Li and Thompson 1981: 611-20).

7.2 Verb Classes

7.2.1 VA: Intransitive Activity Verbs

Intransitive activity verbs take only one argument as their subject. This class consists of roughly half of the activity verbs. Semantically, it contains a large number of action verbs, along with verbs denoting motion, existence, meteorological phenomena, and verbs taking a causer.

Classification Guidelines

When an intransitive activity verb takes a location, as in (129) and (138), it is easily confused with activity transitive verbs (VC1), as in (131) and (132).

- (129) 守門員 躺 在 球門 前
 shou3men2yuan2 tang3 zai4 qiu2men2 qian2
 goalkeeper lie at goal front
 ‘The goalkeeper lay in front of the goal.’
- (130) 學生 們 靜靜地 坐 在 地上
 xue2sheng1 men0 jing4jing4di0 zhou4 zai4 di4shang4
 student PL silently sit at floor top
 ‘The students sat silently on the floor.’
- (131) 伊拉克 入侵 科威特
 yilla1ke4 ru4qin1 kelweilte4
 Iraq invade Kuwait
 ‘Iraq invaded Kuwait.’
- (132) 軍隊 已 進駐 台北
 jun1duei4 yi3 jin4zhu4 tai2bei3
 army ASP enter and.be.stationed Taipei.
 ‘The army entered and stationed in Taipei.’

However, they can be distinguished using the two principles as follows.

- 1 VA's as intransitive verbs require only one thematic argument, as shown in (133). VC1's as transitive activity verbs, such as 進駐 jin4zhu4 'enter and be stationed', require two arguments. Thus, (134) is incomplete.

(133) 學生 坐 著
xue2sheng1 zhou4 zhe0
student sit ASP
'The students were sitting.'

(134) * 軍隊 進駐
jun1duci4 jin4zhu4
army enter.and.be.stationed
'The army entered and is stationed.'

- 2 The location after VAs has to be introduced by prepositions such as 到 dao4 'to' or 在 zai4 'at', as in (129) and (138), whereas VC1s can take a location NP without any preposition, as in (131) and (134).

Subclasses and Subcategorization Frames

On the basis of their meanings and thematic roles, VAs can be divided into four subclasses:⁵ VA1, VA2, VA3 and VA4. The former three take a THEME while V4 takes an AGENT. The semantic and syntactic properties of each subclass are as follows:

- 1 VA1 <THEME>

VA1s are verbs denoting motion or existence. They can be divided into three subclasses based on the meaning and internal structure of a verb.

- (1) VA11: Motion verbs taking a THEME. In general, there can be a location introduced by prepositions such as 到 dao4 'to' or 在 zai4 'at'.⁶ Locative inversion is attested. Verbs in this class include 飛 fei1 'fly', 走 zou3 'walk', 來 lai2 'come', 爬行 pa2xing2 'crawl', 上升 shang4sheng1 'ascend' and 降落 jiang4 luo4 'land'.

► **Pattern 1** THEME < *

(135) 物價 和 工資 水準 已
wu4jia4 han4 kong1zi1 shuei2zhun3 yi3
逐步 上升
zhu2bu4 shang4sheng1
price and wage level already gradually rise
Prices and wages have risen gradually.

- **Pattern 2** THEME < * < LOCATION [PP[{{在, 於, 到, 至, 自, 離, 經}}, NP]]
- (136) 飛機 降落 在 中正機場
 fei1ji1 jiang4luo4 zai4 zhong4zheng4ji1chang3
 plane land at Chiang.Kai-Shek.Airport
 ‘The plane landed at Chiang Kai-Shek International Airport.’

- **Pattern 3** LOCATION [{{NP, GP, PP }}]] <* <<aspect
 [ADV[Di[{{了, 著}}]]] << THEME [NP[-definite]]

- (137) 前面 來 了 一 個 人
 qian2mian4 lai4 le0 yi2 ge0 ren2
 front come ASP one CL people
 ‘There comes a person in front.’

(2) VA12

Posture verbs. They display similar syntactic behaviors as VA11s. The only difference lies in semantics – posture verbs such as 坐 zuo4 ‘sit’, 睡 shuei4 ‘sleep’, 躺 tang3 ‘lie’, and 站 zhan4 ‘stand’ designate static action instead of motion and may have slightly different syntactic alternations.

- **Pattern 1** THEME < *

- (138) 學生 們 靜靜地 坐 著
 xue2sheng1 men0 jing4jing4di0 zuo4 zhe0
 student PL silently sit ASP
 ‘The students were sitting silently.’

- **Pattern 2** THEME < * < LOCATION [PP[{{在, 到}}]]

- (139) 守門員 躺 在 球門 前
 shou3men2yuan2 tang3 zai4 qiu2men2 qian2
 goalkeeper lie at goal front
 ‘The goalkeeper lay in front of the goal.’

- **Pattern 3** LOCATION [{{NP, GP, PP }}]] < * << aspect
 [ADV[Di[{{了, 著}}]]] << THEME [NP[-definite]]

- (140) 長椅 上 睡 著 一 個
 chang2yi3 shang4 shuei4 zhe0 yi2 ge0
 流浪漢
 liu2lang4han4
 bench top sleep ASP one CL tramp
 ‘On the bench there a tramp is sleeping’

(3) VA13

Verbs in this class differ from those in the former two subclasses in the following two aspects.

- They do not take location, and therefore locative inversion is not attested.
- They are compound verbs bearing a verb-object internal structure with the verb denoting motion and the object, the location, as in 上台 shang4tai2 'go up stage', 下樓 xia4lou2 'go down stairs', 出國 chu1guo2 'go abroad', 出場 chu1chang3 'show up', 逛街 guang4jie1 'go shopping'.

► **Pattern 1** THEME < *

- (141) 電腦 網路 考察 團 定
 dian4nao3 wang3lu4 kao3cha2 tuan2 ding4
 十六日 出國
 shi2liu4ri4 chu1guo2
 computer network inspect.group set sixteenth go.abroad
 'The computer network fact-finding group is scheduled to go abroad on the 16th'.

(4) VA2 <THEME>

VA2s are verbs that can take an extra causer argument. In general, these verbs need only one argument to be semantically complete. However, for the causative use, an extra causer argument can be involved. Examples include 出動 chu1dong4 'set forth', 轉 zhuan3 'turn', 旋轉 xuan2zhuan3 'revolve', and 搖 yiao2 'shake'.

► **Pattern 1** THEME < *

- (142) 電腦 網路 考察 團 定
 dian4nao3 wang3lu4 kao3cha2 tuan2 ding4
 十六日 出國
 shi2liu4ri4 chu1guo2
 computer network inspect.group set sixteenth go.abroad
 'The computer network fact-finding group is scheduled to go abroad on the 16th'.

- (143) 大軍 出動 了
 da4jun1 chu1dong4 le0
 army set.forth ASP
 'The army set forth'.

► **Pattern 2** CAUSER < * < THEME

- (144) 聯軍 出動 八 百 架 的
 lien2jun1 chu1dong4 ba1 bai3 jia4 de0
 飛機
 fei1ji1
 alliance launch eight hundred CL DE aircraft
 ‘The alliance launched 800 aircrafts’.

(5) VA3 <THEME>

VA3s are meteorological verbs. As is indicated by the name, this class includes verbs denoting meteorological phenomenon. They are characterized by the fact that they can be used alone without any argument. In addition, most of them are disyllabic compounds with verb-object internal structure like 下雨 xia4yu3 ‘rain’, 打雷 da3lei2 ‘thunder’, 颱風 gualfeng1 ‘typhoon’, 漲潮 zhang4chao2 ‘rise (of tide)’, and 起風 qi3feng1 ‘rise (of wind)’

► **Pattern 1** *

- (145) 下 雨 了
 xia4 yu3 le0
 fall rain ASP
 ‘It rained’.

► **Pattern 2** THEME < *

- (146) 陽明山 起風 了
 yang2ming2shan1 qi3feng1 le0
 yangming Mountain rise.wind ASP
 ‘The wind is beginning to blow in Yangmingshan’.

All the verbs related to meteorology may be classified as VA3s. However, verbs like 寒冷 han2leng2 ‘cold’, 火傘高張 huo3shan3gao1zhang1 ‘all-encompassing heat like a fiery umbrella’ and 暮色朦朧 mu4se4meng2long2 ‘in hazy twilight’ focus on the state; they do not display syntactic pattern 1, and therefore should belong with intransitive state verbs.

(6) VA4 <AGENT>

VA4s require only an agent to be semantically complete. Examples include 鬥法 dou4fa3 ‘to lock horns with’, 打架 da3jia4 ‘fight’, 放賑 fang4zheng4 ‘to give charity relief’, 輕敵 qing1di2 ‘to be overconfident (against an enemy)’, 沏茶 qi4cha2 ‘make tea’, and 說話 shuo1hua4 ‘talk’.

► **Pattern 1** AGENT < *

- (147) 行人 經常 違規
 xing2ren2 jing1chang2 wei2guei1
 pedestrian often violate.rules
 ‘Pedestrians often violate rules’.

7.2.2 VB: Quasi-transitive Activity Verbs

Verbs in this class refer to those requiring two participant roles—one is agent and the other goal or theme—to fulfill their semantic requirements. However, the second role cannot occur as an object directly after such verbs. Instead, it has to show up in a special syntactic slot: It can be introduced by a preposition (like 向 *xiang4* ‘toward’, 幫 *bang1* ‘help’, 為 *wei4* ‘for’, 替 *ti4* ‘replace’, 給 *gei3* ‘give’ etc.) or be preposed with 把 *ba3* ‘BA’ or 將 *jiang1* ‘JIANG’,^{7, 8}

The object may also be inserted between the two units of a compound verb. Typical examples include 求婚 *qiou2hun1* ‘propose marriage’, 拜年 *bai4nian2* ‘extend new year greetings’, 說媒 *shuo1mei2* ‘carry out match-making’, 免職 *mien3zhi2* ‘lay off’, 延期 *yien2qi2* ‘postpone; extend’, 解體 *jie3ti3* ‘disintegrate’, 理髮 *li3fa3* ‘cut hair’, and 充公 *chong1gong1* ‘confiscate’.

Classification Guidelines

When the objects are introduced by a preposition, they normally function as the object of an activity. Semantically, they can be either a GOAL or a THEME. Compare the following two sentences.

- (148) (a) 張先生 向 李小姐 求婚
zhang1xian1sheng1 xiang4 li3xiao3jie3 qiu2hun1
 Mr.Zhang toward Miss.Li propose
 ‘Mr. Zhang proposed to Miss Li.’
- (b) 張先生 跟/與/和 李小姐 結婚 了
zhang1xian1sheng1 gen0/yu3/han4 li3xiao3jie3 jie2hun1 le
 Mr.Zhang with Miss.Li marry
 ‘Mr. Zhang got married with Miss Li’

In (148a), Miss Li is the receiving point of Mr. Zhang’s action of proposal, whereas in (148b), Miss Li and Mr. Zhang execute the event of marriage together. Examples like (148b) will not be subsumed under this category and will be classified as intransitive verbs, with the contingency that the subject needs to be plural.

Subclasses and Subcategorization Frames

Quasi-transitive activity verbs can be classified based on the semantic role of their arguments. In the first one, VB1s take an AGENT and a GOAL, whereas

VB2s take an AGENT and a THEME. VB1s can be further divided into VB11 and VB12, with VB12 manifesting a pattern similar to unaccusative verbs. To highlight this syntactic feature, VB12s are treated as a subclass. Basic sentence patterns and examples are illustrated as follows.

(a) VB11 <AGENT GOAL>

- **Pattern 1** AGENT [{NP, PP[由]}] < GOAL[PP[{{把, 將, 朝, 向, 給, 幫, 為, 替, 以}}]] < *

- (149) 資訊所 同仁 替/為/給/幫
zhi1xun4suo3 tong2ren2 ti4/wei4/gei3/bang1
陳博士 洗塵
chen2buo2shi4 shi3chen2
institute.of.information.science coworker for Dr.Chen wash.dust
‘Coworkers of the Institute of Information Science held a
welcome home party for Dr. Chen’.

- **Pattern 2** AGENT [{NP, PP[由]}] < * 《GOAL[PP[{{給, 於}}]]

- (150) 李 姓 嫌犯 企圖 嫁禍 給 王 某
li3 xing4 xien2fan4 qi4tu2 jia4huo4 gei3 wang2 mou4
Li surname suspect attempt shift. blame give Wang somebody
‘Suspect Li attempted to shift blame to Wang’.

- **Pattern 3** GOAL[NP] <AGENT[{{PP, P}}] < *

- (151) 張 課員 被 免職 了
zhang1 ke1yuan2 bei4 mien3zhi2 le0
Zhang clerk by fire ASP
‘Clerk Zhang has been fired’.

- **Pattern 4** GOAL[NP, PP[{{關於, 至於}}]] < AGENT[{{NP, PP[由}}]] < *

- (152) (關於/至於) 婚姻 大事 (由) 父母
guan1yu2/zhi4yu2 hun1yin1 da4shi4 (you2) fu4mu3
做主
zuo4zhu3
concerning marriage important.matter by parents decide
‘As for an important matter as marriage, (it) is up to my parents
to decide.’

(b) VB12 <AGENT GOAL>

► **Pattern 1** GOAL [NP] < *

(153) 考試 延期 了
 kao3shi4 yien2qi2 le0
 test postpone ASP
 ‘The test has been postponed.’

(154) 張三 整容 了
 zhang1shan1 zheng3rong2 le0
 PN plastic.surgery ASP
 ‘Zhangshan has undergone plastic surgery.’

In addition to the above special sentence patterns, VB12s share the following two sentence patterns with VB11s.

► **Pattern 2** AGENT [{NP, PP[由]}] < GOAL [[PP{把, 將, 朝, 向, 給, 幫, 為, 替}]] <*

(155) 教學 委員會 把 考試 延期
 jiao1xue2 wei3yuan2hui4 ba3 kao3shi4 yien2qi2
 了
 le0
 teaching committee BA test postpone ASP
 ‘The teaching committee postponed the test.’

(156) 美容師 幫 張三 整容
 mei3rong2shi1 bang1 zhang1shan1 zheng3rong1
 beautician help PN plastic.surgery
 ‘The beautician performed the plastic surgery on Zhangshan.’

► **Pattern 3** GOAL [NP] < AGENT [{PP, P[{被, 給}]]] < *

(157) 考試 被 延期 了
 kao3shi4 bei4 yien2qi2 le0
 test by postpone ASP
 ‘The test has been postponed.’

(c) VB2 <AGENT THEME>

- **Pattern 1** AGENT[{NP, PP[由]}] < THEME[PP[{把, 將, 給, 為, 替}]] < *

(158) 王 姓 男子 將 這 幢
 wang2 shing4 nan2zhi3 jiang1 zhe4 tong4
 透天住宅 據為己有
 tou4tien1zhu4zai2 ju4wei2ji3you3
 PN surname man JIANG this CL townhouse appropriate
 ‘Wang appropriated this townhouse.’

- **Pattern 2** AGENT[{NP, PP[由]}] < * < THEME[PP[{給, 於}]]

(159) 蜜蜂 授粉 給 雌蕊
 mi4fong1 shou4fen3 gei3 ci2rui3
 bee pollinate give pistil
 ‘Bees pollinate pistils.’

- **Pattern 3** THEME[NP] < AGENT[{PP, P}] < *

(160) 該 批 走私貨 被 充公 了
 gai1 pi1 zou3si1huo4 bei4 chong1gong1 le0
 that CL smuggle goods by confiscate ASP
 ‘The smuggled goods have been confiscated.’

7.2.3 VC: Activity Transitive Verbs

Classification Guidelines

Activity transitive verbs, as indicated by the name, are activity verbs and require two arguments. Syntactically, the two arguments are both NPs (including nominalized verb phrases) serving as Subject and Object of the verb, as in (161) and (162).

(161) 小孩 學 音樂
 xiao3hai2 xue2 yin1yue4
 kid study music
 ‘The kid studied music.’

(162) 海關 人員 檢查 行李
 hai3guan1 ren2yuan2 jian3cha2 xing2li3
 customs people check baggage
 ‘The customs officers examined the baggage.’

Subclasses and Subcategorization Frames

Activity transitive verbs can be divided into three classes based on the thematic role of the arguments.

(a) VC1 <THEME GOAL>

VC1s are verbs denoting movement or existence with the THEME argument as the subject and the GOAL as the object like 闖入 *chuang3ru4* ‘break into’, 奔赴 *ben1fu4* ‘rush to’, 逃離 *tau2li2* ‘escape’, 住 *zhu4* ‘live’, 世居 *shi4ju1* ‘live for generations’, 進入 *jin4ru4* ‘enter’, 經過 *jing1guo4* ‘bypass’, and 登臨 *deng1lin2* ‘ascend’. Most of the GOAL arguments have a locative feature, as shown in (163)–(165).

► **Pattern 1** THEME < * < GOAL [{NP, GP}]

(163) 歹徒 闖入 家裡
dai3tu2 chuang3ru4 jia1li3
 criminal break into house inside
 ‘The criminal broke into the house.’

(164) 警方 奔赴 現場
jing3fang1 ben1fu4 xian4chang3
 police rush to scene
 ‘The police rushed to the scene.’

► **Pattern 2** THEME < * 《 GOAL [PP [{到, 至}], +[location]]

(165) 災民 逃離 到 郊外
zai1min2 tau2li2 dao4 jiao1wai4
 victim flee to open-field
 ‘The victims fled to the open field.’

Owing to semantic extension, some verbs besides location, as in (166a) and (167a), can also take time and condition goal, as in (166b,c) and (167b,c).

(166) (a) 張先生 進入 這 棟 大樓
zhang1xian1sheng1 jin4ru4 zhe4 dong4 da4lou1
 Mr.Zhang enter this CL tall.building
 ‘Mr. Zhang entered this tall building.’

(b) 台北 進入 冬天
tai2bei3 jin4ru4 dong1tien1
 Taipei enter winter
 ‘Taipei entered the winter season.’

- (c) 這 件 案 子 進 入 司 法 程 序
 zhe4 jian4 an4zi0 jin4ru4 si1fa3 cheng2xu4
 this CL case enter judicial process
 ‘This case has gone into the judicial process.’

(167) (a) 我 昨 天 經 過 台 北
 wo3 zuo2tien1 jing1guo4 tai2bei3
 I yesterday bypass Taipei
 ‘I passed by Taipei yesterday.’

- (b) 這 件 事 經 過 好 幾 年
 zhe4 jian4 shi4 jing1guo4 hao3 ji3 nian2
 this CL matter pass good many years
 ‘So many years have passed since this incident/event.’

- (c) 這 個 案 子 經 過 一 番
 zhe4 ge0 an4zhi0 jing1guo4 yi4 fan1
 協 商
 xie2shang1
 this CL case undergo one CL negotiation
 ‘This case went through a round of negotiation.’

(b) VC2 <AGENT GOAL>

VC2 verbs such as 打 da3 ‘beat’, 學 xue2 ‘study’, 訪問 fang3wen4 ‘visit’, 使用 shi3yong4 ‘use’, 觀察 guan1cha2 ‘observe’, 破壞 po4huai4 ‘damage’, 安頓 an1dun4 ‘settle’, 降伏 xiang2fu2 ‘conquer’, 檢查 jian3cha2 ‘check’, 照顧 zhao4gu4 ‘look after’, and 跟蹤 gen1zong1 ‘follow’ are preceded by an AGENT and followed by a GOAL. The AGENT in this class has wider scope than is generally defined. In addition to the use of ‘changing the state of things or affairs’, the AGENT exhibits usage similar to that of the recipient, like 看 kan4 ‘look’, 瞧 qiao2 ‘look’, 瞪 deng4 ‘stare’, 注視 zhu4shi4 ‘look at’, 觀察 guan1cha2 ‘observe’, 巡視 xun2shi4 ‘patrol’, 仰望 yang2wang4 ‘look up’, 學 xue2 ‘study’, 練 lien4 ‘practice’, 修習 xiou1xi2 ‘take’, and 體察 ti3cha3 ‘experience’. Patterns 1–3 are basic sentence patterns and examples.

► **Pattern 1** AGENT [{ [NP, PP [由]]}] < * < GOAL [NP]

- (168) 大 量 的 遊 客 破 壞 公 園 景 觀
 da4liang2 de0 you2ke4 po4huai4 gong1yuan2 jing3guan1
 large quantity DE tourist damage park scenery
 ‘A large number of tourists damaged the landscape of the park.’

▶ **Pattern 2** AGENT [{NP, PP[由]}] < GOAL [PP] < *

- (169) 大量 的 遊客 把 / 將 公園
 da4liang2 de0 you2ke4 ba3 gong1yuan2
 景觀 破壞 了
 jing3guan1 po4huai4 le0
 large quantity DE tourist BA park scenery damage ASP
 ‘A large number of tourists damaged the landscape of the park.’

▶ **Pattern 3** GOAL [NP] < AGENT [{PP, P}] < *

- (170) 公園 景觀 被 / 給 / 遭 大量
 gong1yuan2 jing3guan1 bei4/gei3/zao1 da4liang4
 遊客 破壞 了
 you2ke4 po4huai4 le0
 park scenery by large quantity tourist damage ASP
 ‘A large number of tourists damaged the landscape of the park.’

Some VC2 verbs can appear in 把 ba3 or 被 bei4 constructions with a third thematic argument bearing a part-whole relation with the GOAL, as in (171)–(172).

▶ **Pattern 4** GOAL [NP] < AGENT [{PP, P[被, 給, 遭]}] < * < THEME [NP]

- (171) 牆 被 他 磨 了 一 個 洞
 qiang2 bei4 ta1 mo2 le4 yi2 ge0 dong4
 wall by he grind ASP one CL hole
 ‘The wall was dug through by him.’

▶ **Pattern 5** AGENT [{NP, PP[由]}] < GOAL [PP] < * < THEME [NP]

- (172) 他 把 橘子 剝 了 皮
 ta1 ba3 ju2zi0 bo1 le0 pi2
 he BA tangerine peel ASP peel
 ‘He peeled the tangerine.’

(c) VC3 <AGENT THEME>

VC3s are preceded by an agent and followed by a thematic argument. They can be divided into three subclasses based on their basic sentence patterns.

- (i) VC31: Except for the THEME, these verbs do not need to take a locational element. Examples include 買 mai3 ‘buy’, 賺 zhuan4 ‘earn’, 吃 chi1 ‘eat’, 生產 sheng1chan4 ‘produce’, 組織 zu3zhi1 ‘organize’, 吸收 xi1shou1 ‘absorb’, 佔領 zhan4ling3 ‘occupy’, and 洩漏 xie4lou4 ‘let out’. Basic sentence patterns are as follows.

► **Pattern 1** AGENT [{NP, PP [由]}] < * < THEME [NP]

- (173) 廠商 賺 了 巨額 利潤
 chang3shang1 zhuan4 le0 ju4e2 li4run4
 firm earn ASP huge amount profit
 ‘The firm has made huge profits.’

► **Pattern 2** AGENT [{NP, PP [由]}] < THEME [NP] < *

- (174) 共軍 把 / 將 海南島 佔領 了
 gong4jun1 ba3/jiang1 hai3nan2dao zhan4ling3 le0
 Communist.troops BA/JIANG Hainan.Island occupy ASP
 ‘The Communist troops have occupied Hainan Island.’

► **Pattern 3** THEME [NP] < AGENT [{PP, P}] < *

- (175) 海南島 被 共軍 佔領 了
 hai3nan2dao bei4 gong4jun1 zhan4ling3 le0
 Hainan.Island by Communist.troops occupy ASP
 ‘Hainan Island was occupied by the Communist troops.’

If the AGENT is also the recipient of the THEME, which will be marked with a [+recipient] feature in our system, sentence patterns 4–5 can be attested. In such sentences, the THEME undergoes movement from SOURCE to AGENT [+recipient]. On the other hand, when the AGENT is the source of the THEME, marked with [+source], sentence patterns 6–7 can be seen. In such sentences, the THEME undergoes movement from the AGENT [+source] to the RECIPIENT.

► **Pattern 4** AGENT [{NP, PP [由]}] < * < SOURCE [NP]
 < THEME [NP]⁹

- (176) 仲介商 賺 顧客 一 筆
 zhong4jie4shang1 zhuan4 gu4ke4 yi4 bi3
 錢
 qian2
 agency earn customer one CL money
 ‘The agent made some money from the customer.’

- (177) 他 吃 我 一 顆 蘋果
 ta1 chi1 wo3 yi4 ke1 ping2guo3
 he eat I one CL apple
 ‘He took advantage of me by eating an apple of mine.’

- (d) AGENT[{NP, PP[由]}] < SOURCE[PP{向, 跟}]
< * < THEME[NP]

(178) 營業員 向 / 跟 客戶 收取
ying2ye4yuan2 xiang4/geng1 gu4ke4 shou1qu3
手續費
shou3xu4fei4
clerk toward/with customer collect service fee
'The clerk collected the handling fee from the customer.'

- (e) AGENT[{NP, PP[由]}] < GOAL[PP{對, 向}] < * < THEME[NP]

(179) 代表 們 向 縣府 表達 民眾
dai4biao3 men0 xiang4 xian44fu3 biao3da2 min2zong4
的 心聲
de0 xin1sheng4
delegate PL toward county.government express people DE heart
voice
'The representatives expressed people's wishes to the county
government.'

- (f) AGENT[{NP, PP[由]}] < THEME[PP] < * 《 GOAL [PP[在]]

(180) 他 把 不滿 的 情緒 發洩 在
ta1 ba3 bu4man3 de0 qing2xu4 fa1xie4 zai4
朋友 身上
peng2you3 shen1shang4
he BA dissatisfy DE emotion vent at friend body top
'He vented his dissatisfaction on his friend.'

- 2 VC32: Besides the THEME, these verbs can take a LOCATION introduced by 到 dao4 'to'. Examples include 引渡 yin3du4 'extradite', 調遣 diao4qian3 'dispatch', 走私 zou3si1 'smuggle', 押送 ya1song4 'escort under guard', 搭載 dalzai4 'take (vehicle)', 護送 hu4song4 'escort with protection', and 投遞 tou2di4 'deliver'.

- **Pattern 1** AGENT[{NP, PP[由]}] < THEME[NP, -definite] 《 LOCATION[PP[到]]

(181) 不法 商人 走私 煙酒 到
bu4fa3 shang1ren1 zou3si1 yien1jiou3 dao4
國內
guo2nei4
unlawful merchant smuggle tobacco alcohol to domestic
'Unlawful merchants smuggled alcohol and tobacco into the
country.'

- 3 VC33: In addition to the THEME, these verbs can take a LOCATION introduced by 在 zai4 ‘at’ or 到 dao4 ‘to’. Locative inversion is attested. Examples include 放 fang4 ‘put’, 埋 mai2 ‘bury’, 懸掛 xuan2gua4 ‘hang’, 儲存 chu3chun2 ‘store’, 搭建 daijian4 ‘build’, 刊登 kan1deng1 ‘publish’, 囚禁 qiou2jin4 ‘imprison’, 安裝 an1zhuang1 ‘install’, 配帶 pei4dai4 ‘equip’, and 烙 lao4 ‘brand’.

► **Pattern 1** AGENT[{NP, PP[由]}] < * < THEME[NP, -definite] 《 LOCATION[PP[{在, 到}]]

- (182) 他 刊登 了 一 則 廣告 在
 ta1 kan1deng1 le0 yi4 ze2 guang3gao4 zai4
 報紙 上
 bao4zi3 shang4
 s/he publish ASP one CL advertisement at newspaper top
 ‘S/He placed an ad in the newspaper.’

► **Pattern 2** LOCATION[{NP, GP, PP}] * < THEME[NP]

- (183) 報紙 上 刊登 了 一 則
 bao4zi3 shang4 kan1deng1 le0 yi4 ze2
 廣告
 guang3gao4
 newspaper top publish ASP one CL advertisement
 ‘An advertisement appeared in the newspaper.’

Subcategorization principle

VC32 and VC33 are very similar in that both take a LOCATION introduced by a preposition in addition to the thematic argument. Their difference lies in locative inversion, which is attested in VC33s, as shown in (184b), but not for VC32, as shown in (185b). Moreover, the LOCATION of VC32s is introduced by 到 dao4 ‘to’ whereas for a VC33, the LOCATION is preceded by either 在 zai4 ‘at’ or 到 dao4 ‘to’.

- (184) (a) 商家 懸掛 了 一 面 國旗 在
 shang1jia1 xuan2gua4 le0 yi2 mian4 guo2qi2 zai4
 牆上
 qiang2shang4
 store hang ASP one CL national.flag at wall
 ‘The store hung a national flag on the wall.’
- (b) 牆上 懸掛 了 一 面 國旗
 qiang2shang4 xuan2gua4 le0 yi2 mian4 guo2qi2
 wall hang ASP one CL national.flag
 ‘A national flag hangs on the wall.’

- (185) (a) 不法 商人 走私 菸酒 到 國內
 bu4fa3 shang1ren1 zou3si1 yien1jiou3 dao4 guo2nei4
 unlawful merchant smuggle tobacco alcohol to domestic
 ‘Unlawful merchants smuggled alcohol and tobacco into the country.’
- (b) *國內 走私 了 菸酒
 guo2nei4 zou3si1 le0 yien1jiou3
 domestic smuggle ASP tobacco alcohol

7.2.4 *VD: Ditransitive Verbs*

Syntactically, double-object constructions refer to the construction in which a verb is followed by two objects. However, our definition of ditransitive verbs is narrower than the traditional sense. In our classification, meaning is taken as the major criteria, and syntactic behaviors are viewed as the supporting criteria. In other words, verbs in this class need three arguments to fulfill their semantic representation. These three arguments represent an entity, the source and the goal for the movement of the entity, respectively. The entity can be represented as pure nouns without any marker or can be introduced by such markers as 給 *gei3* ‘give’ or 向 *xiang4* ‘toward’. Typical examples include 送 *song4* ‘send’, 交 *jiao1* ‘hand to’, 傳 *chuan2* ‘pass’, 借 *jie4* ‘lend/borrow’, and so on.¹⁰

Classification Guidelines

- (i) If the argument following the verb can appear in the form of a sentence or a VP, it will be classified as a verb taking a sentential object or a verb taking verb-phrase object, rather than a ditransitive verb, in spite of the fact that the two arguments can appear in the form of noun phrases. Hence, the two verbs *gao4shu4* and *fa2* are classified as verbs of sentential object and verb-phrase object respectively, even though they also have double-object behaviors, as in (186) and (187).
- (186) 他 告訴 我 一 件 事
 ta1 gao4shu4 wo3 yi2 jian4 shi4
 he tell I one CL matter
 ‘He told me one thing.’
- (187) 老師 罰 我 三 塊 錢
 lao3shi1 fa2 wo3 san1 kuai4 qian2
 teacher fine I three CL money
 ‘My teacher fined me three bucks.’
- (ii) As verbs are classified according to their required arguments, verbs that can only take double object in specific genres, such as in spoken language, will

be subsumed under transitive verbs instead of under this class, as discussed above and illustrated in (188)–(189).

- (188) 張三 吃 李四 一 個 蘋果
 zhang1san1 chi1 li3si4 yi2 ge0 ping2guo3
 PN eat PN one CL apple
 ‘Zhangsan ate an apple of Lisi’s.’
- (189) 張三 拿 李四 一 本 書
 zhang1san1 na2 li3si4 yi4 ben3 shu1
 PN take PN one CL book
 ‘Zhangsan took a book from Lisi.’

In the two examples above, though ‘apple’ and ‘book’ are transferred from John to Lee, and the three arguments serve as the entity, the source and goal for the movement of the entity, respectively; however, only two arguments will suffice for the semantic requirements with reference to the semantic contents of 吃 *chi* ‘eat’ and 拿 *na* ‘take’. Therefore, such constructions in spoken language will be dealt with in VC31.

Subclasses and Subcategorization Frames

Ditransitive verbs can be divided into two subclasses based on the semantic role of the arguments. One (VD1s) take an AGENT, a THEME and a GOAL, while the other (VD2s), take an AGENT, a THEME and a SOURCE. Now that they take different semantic roles, semantic divergence can be expected. Most of the VD1 verbs carry positive meanings as illustrated by 送 *song* ‘send/give’, 捐 *juan* ‘donate’, 頒贈 *ban1zeng4* ‘award’, 傳授 *chuan2shou4* ‘teach’, and 灌輸 *guan4shu1* ‘instill’. In contrast, VD2 verbs tend to be more negative, as evidenced by 搶 *qiang* ‘rob’, 索取 *sou3qu3* ‘ask for’, 敲詐 *qiao1za4* ‘blackmail’, 欠 *qian4* ‘owe’, and 告貸 *gao4dai4* ‘ask for a loan’. Because of this semantic feature, VD1s are rarely found in passive constructions, and the indirect objects are generally introduced by 給 *gei* ‘give’. On the contrary, most VD2s can appear in passive constructions, with the indirect object introduced by 向 *xiang* ‘toward’. The differences are as follows:

- (i) VD1 <AGENT THEME GOAL>

► **Pattern 1** AGENT[{NP, PP[由]}] < * < GOAL[NP] < THEME[NP]

- (190) 王先生 送 李小姐 一百 朵
 wang1xian1sheng1 song4 li3xiao3jie3 yi4bai3 duo3
 玫瑰花
 mei2guei1hua1
 Mr. Wang give Miss Li one hundred CL rose.
 ‘Mr. Wang gave Miss Li 100 roses.’

- **Pattern 2** AGENT[{-NP, PP[由]}] < * 《 GOAL[PP[給]]
< THEME[NP]

(191) 王先生 交 給 李小姐 一百
 wang1xian1sheng1 jiao1 gei li3xiao3jie3 yi4bai3
 朵 玫瑰花
 duo3 mei2guei1hua1
 Mr. Wang hand GEI Miss Li one hundred CL rose
 ‘Mr. Wang handed Miss Li 100 roses.’

- **Pattern 3** AGENT[{-NP, PP[由]}] < * 《 THEME[NP]
< GOAL[PP[給]]

(192) 王先生 送/交 一百 朵
 wang1xian1sheng1 song4/jiao1 yi4bai3 duo3
 玫瑰花 給 李小姐
 mei2guei1hua1 gei3 li3xiao3jie3
 Mr. Wang send hand one hundred CL rose give Miss Li
 ‘Mr. Wang handed 100 roses to Miss Li.’

(ii) VD2 <AGENT THEME SOURCE>

- **Pattern 1** AGENT[{-NP, PP[由]}] < * < SOURCE[NP] < THEME[NP]

(193) 小王 欠 我 好多 會錢
 xiao3wang2 qian4 wo3 hao3duo1 hui4qian
 small PN owe I good many money
 ‘Little Wang owed me a lot of money.’

- **Pattern 2** AGENT[{-NP, PP[由]}] < SOURCE[PP[{-向, 跟}]] < * < THEME[NP]

(194) 歹徒 向 林 家 勒索 一 百萬
 dai3tu2 xiang4 lin2 jia1 le1suo3 yi4 bai3wan4
 criminal toward Surname family extort one million
 ‘The criminal extorted one million from the Lin family.’

- **Pattern 3** SOURCE[NP] < AGENT[{-PP, P[被]}] < * < THEME[NP]

(195) 老太太 被 蒙面人 搶 了
 lao3tai4tai0 bei4 mong2mian4ren2 qiang3 le0
 所有 的 首飾
 suo3you3 de0 shou3shi4
 old.woman by masked.man rob ASP all DE jewelry
 ‘The old woman was robbed of all her jewelry by the masked man.’

Criteria for Subcategorization

Sometimes the distinction between VD1 and VD2 can cause confusion because some verbs can have both patterns with 向 *xiang4* ‘toward’ and 給 *gei3* ‘give’. As shown in (196) and (197), neither the argument introduced by 向 *xiang4* ‘toward’ nor that introduced by 給 *gei3* ‘give’ is the obligatory argument of the verb.

- (196) 他 切 一 塊 肉 給 我
 ta1 qie1 yi2 kuai4 rou4 gei3 wo3
 he cut one CL meat give I
 ‘He cut a piece of meat for me.’

- (197) 他 向 我 撒嬌
 ta1 xiang4 wo3 sa3jiao1
 he toward I act.coquettishly
 ‘She acted coquettishly to me.’

The verb 切 *qie1* ‘cut’ needs only two arguments to fulfill the semantic requirements, and one argument will be sufficient for 撒嬌 *sa3jiao1* ‘act coquettishly’. Consequently, whether they are obligatory arguments or not, or whether one of them is obligatory needs to be considered carefully. For example, in the corpus, we found examples of 借貸 *jie4dai4* ‘loan’ as below.

- (198) 王 經理 將 資金 借貸 給 他人
 wang2 jing1li3 jiang1 zi1jin1 jie4dai4 gei3 ta1ren2
 Wang manager JIANG capital loan GEI other.person
 ‘Manager Wang loaned capital money to another person.’

- (199) 農會 向 銀行 借貸 巨額 貸款
 nong2hui4 xiang4 yin2hang2 jie4dai4 ju4e2 dai4kuan3
 farmer.association toward bank loan huge.amount loan
 ‘The farmers’ association asked for a huge loan from the bank.’

This does not mean that 借貸 *jie4dai4* ‘loan’ should be classed into VD1 and VD2 at the same time;¹¹ rather, it depends on the semantic content of the verb. As the source argument is the focus of 借貸 *jie4dai4* ‘loan’, it belongs to VD2. In contrast, for 灌輸 *guan4shu1* ‘instill’, the focus is on the GOAL of instillation. As shown in the sentences below, although the sentence pattern is introduced by 向 *xiang4* ‘toward’, 向學生 *xiang4xue2sheng1* ‘toward the students’ is not the SOURCE. Instead, like 給學生 *gei3xue2sheng1* ‘to the students’ in (201), it serves as the GOAL.

- (200) 老師 向 學生 灌輸 兼愛 的
 lao3shi1 xiang4 xue2sheng1 guan4shu1 jian1ai4 de0
 觀念
 guan1nian4
 teacher toward student instill universal.love DE idea
 ‘The teacher instilled in the students the idea of universal love.’
- (201) 老師 灌輸 兼愛 的 觀念 給
 lao3shi1 guan4shu1 jian1ai4 de0 guan1nian4 gei3
 學生
 xue2sheng1
 teacher instill universal.love DE idea give student
 ‘The teacher instilled the idea of universal love into the students.’

This idea is more evident in the case of 勒索 le1sou3 ‘extort’ below.

- (202) (a) 綁匪 向 林家 勒索 一 百萬
 bang3fei3 xiang4 lin2jia1 le1sou3 yi4 bai3wan4
 kidnapper toward Lin family extort one million
 ‘The kidnapper(s) extorted one million dollars from the Lin family.’
- (b) 綁匪 勒索 一 百萬 給 老大
 bang3fei3 le1sou3 yi4 bai3wan4 gei3 lao3da4
 kidnapper extort one million give leader
 ‘The kidnapper(s) extorted one million dollars for their leader.’

As (202a) is the prerequisite sentence pattern, 勒索 le1sou3 ‘extort’ is a VD2 verb rather than VD1. (202b) is a kind of gei3 給 GIVE construction similar to serial verb constructions, which are not used as the criteria for verb classification. For analysis, please refer to Mo et al. (1991).

7.2.5 *VE: Sentential Object Action Verbs*

Sentential object verbs take sentences as their arguments. They usually denote speech acts or thinking activities and require two or three arguments to fulfill the semantic requirements.

Classification Guidelines

- 1 If the argument after an activity verb can occur in sentential forms, it can be subsumed into this class. Semantically, being able to take the subject ‘一件事’ yi2jian4shi4 ‘one matter’ can be taken as a criterion.

- (203) (a) 他 將 告訴 大家 一 件 事
 ta1 jiang1 gao4su4 da4jia1 yi2 jian4 shi4
 he will tell everybody one CL matter
 ‘He is going to tell everybody one matter.’

- (b) 他 將 告訴 大家 他 要 辭職 了
 ta1 jiang1 gao4su4 da4jia1 ta1 yao4 ci2zhi1 le0
 He will tell everybody he want resign ASP
 ‘He is going to tell everybody that he is going to resign.’

However, some verbs, though taking sentential objects, require only two arguments—an AGENT and a THEME—to fulfill their semantic requirements. They therefore should be subsumed under single object verbs (VC) like 騙 pian4 ‘lie to’ in (204). Note that, under this analysis, (204b) is accounted for with an optional complement.

- (204) (a) 他 騙 了 我
 ta1 pian4 le0 wo3
 he lie to ASP I
 ‘He lied to me.’
- (b) 他 騙 我 媽媽 生病 了
 ta1 pian4 wo3 ma1ma0 sheng1bing4 le0
 he lied to I mother fall.sick ASP
 ‘He lied to me that Mom fell ill.’

- 2 Some verbs designating speech acts, though generally not taking direct sentential objects, can do so when followed by a quotation mark (“ ” or 「 」). Such verbs, as exemplified by 大聲疾呼 da4sheng1ji2hu1 ‘advocate strongly’ and 自言自語 zi4yian2zi4yu3 ‘talk to oneself’ will be subsumed under VE.

- (205) (a) 他 大聲 疾呼 環保 的 重要
 ta1 da4sheng1 ji2hu1 huan2bao3 de0 zhong4yao4
 he loudly advocate environmental.protection DE importance
 ‘He strongly advocated the importance of environmental protection.’
- (b) 他 大聲 疾呼: 我們 不能 再
 ta1 da4sheng1 ji2hu1: wo3men0 bu4neng2 zai4
 坐視 這 件 事 了
 zuo4shi4 zhe4 jian4 shi4 le0
 he advocate strongly : we cannot again overlook this CL matter.
 ‘He advocated strongly that “we should not overlook this anymore.”’

- (206) (a) 若梅 常 自言自語
 rou4mei2 chang2 zi4yian2zi4yu3
 PN often talk.to.oneself
 ‘Roumei often talks to herself.’

- (b) 若梅 常 自言自語 : 我 到底
rou4mei2 chang2 zi4yian2zi4yu3 : wo3 dao4di3
怎麼 了 ?
zen3me0 le0

PN often talk.to.oneself : I on.earth how ASP?

‘Roumei often talks to herself, “What on earth is wrong with me?”’

- 3 Sentential object verbs (VE) and verb-phrase object verbs (VF): When the subject of the sentential argument is omitted, it can be hard to distinguished VE and VF with the sentence pattern of VF2: NP1-*.NP2-VP via the surface structure. We then can resort to the following two criteria.

- (a) Insertion of temporal expressions: Temporal expressions function as sentential modifiers. When they appear between the main verb and NP2-VP, we can determine that NP2 and VP form a complete sentence and that the verb can be seen as one taking a sentential object (VE), as illustrated by 安排 an1pai2 ‘arrange’ in (207). However, 委派 wei3pai4 ‘appoint’ in (208) is a control verb belonging to VF2.

- (207) (a) 主席 安排 會員 報到
zhu3xi2 an1pai2 hui4yuan2 bao4dao4
chair arrange member register
‘The chair arranged for the members to register.’

- (b) 主席 安排 明天 會員
zhu3xi2 an1pai2 ming2tian1 hui4yuan2
報到
bao4dao4
chair arrange tomorrow member register
‘The chair arranged for the members to register tomorrow.’

- (208) (a) 總統 委派 他 接任
zong3tong3 wei3pai4 ta1 jie1ren4
台北市長
tai2bei3shi4zhang3
president appoint he take.over Taipei.mayor
‘The President appointed him to serve as Mayor of Taipei.’

- (b) *總統 委派 明天 他 接任
zong3tong3 wei3pai4 ming2tian1 ta1 jie1ren4
台北市長
tai2bei3shi4zhang3
president appoint tomorrow he take.over Taipei.mayor

(b) Recoverability of the omitted subject

With a co-referential relationship between the subject of the main verb and that of the complement clause, ellipsis can occur. If the omitted noun phrase (NP2) of the verb, like that of 答應 da2ying4 ‘agree,’ can be recovered to the surface structure, the complement will be taken as a sentence with subject deletion and the verb will then be subsumed under the sentential object verbs. On the contrary, if NP2 cannot occur explicitly, the verb will be taken as a control verb and will be subsumed under VF2, as exemplified by 勸 chuan4 ‘advise’.

- (209) (a) 他 答應 李四 可以 參加 議會
 ta1 da2ying4 li3si4 ke3yi3 chan1jia1 yi4hui4
 he agree PN can join congress
 ‘He agreed that Lisi can join the congress.’
- (b) 他 答應 李四, 他 可以 參加 舞會
 ta1 da2ying4 li3si4, ta1 ke3yi3 chan1jia1 wu3hui4
 he agree PN he can join party
 ‘He promised Lisi that he can take part in the party.’
- (210) (a) 他 勸 父母 放心
 ta1 quan4 fu4mu3 fan4xin1
 he persuade parent not.worry
 ‘He persuaded his parents not to worry.’
- (b) *他 勸 父母 , 父母 放心
 ta1 quan4 fu4mu3 , fu4mu3 fan4xin1¹²

Subclasses and Subcategorization Frames

Arguments of this verb class can appear either in sentential forms, semantically equivalent noun phrases, or verb phrases, as shown in (211).

- (211) (a) 你 要 提醒 張華 他 明天 必須 交
 ni3 yao4 ti2xing3 zhang1hua1 ta1 ming2tian1 bi4xu1 jiao1
 報告
 bao4gao4
 you want remind PN he tomorrow must turn.in report
 ‘You have to remind Zhang Hua that he will need to turn in the report tomorrow.’
- (b) 你 要 提醒 張華 交 報告 的 事
 ni3 yao4 ti2xing3 zhang1hua1 jiao1 bao4gao4 de0 shi4
 you want remind PN turn.in report DE matter
 ‘You have to remind Zhang Hua of the matter about turning in the report.’

- (c) 你 要 提醒 張華 交 報告
 ni3 yao4 ti2xing3 zhang1hua1 jiao1 bao4gao4
 you want remind PN turn.in report
 ‘You have to remind Zhang Hua to turn in the report.’

Sentential object verbs can be subdivided into two classes depending on the number of arguments.

- (a) VE1 <AGENT GOAL THEME>
 Verbs in this subclass have three arguments and can be divided into two subclasses.

- (i) VE11:
 Verbs in this subclass denote an enquiry and can only take interrogative sentences as their objects. The scope of the question must be restricted within the embedded clauses, therefore the [+Q] feature will not pass up to the main verb, as in 查問 cha2wen4 ‘enquire’.

- **Pattern 1** AGENT [{NP, PP[由]}] < * < GOAL [NP] < THEME
 [{NP, VP, S}]

- (212) 警察 查問 張偉 一共
 jing3cha2 cha2wen4 zhang1wei3 yi2gong4
 去 了 哪些 地方
 qu4 le0 na3xie1 di4fang1
 police inquire PN total go ASP what.PL place
 ‘The police asked Zhang Wei what places he had gone to.’

- (ii) VE12:
 Most of these verbs are utterance verbs. In contrast to VE11, their grammatical features are:

- some of the main verbs can inherit the interrogative feature (i.e. the full sentence is a question), as 答應 da2ying4 ‘agree’ in (213); but this is not so for the others, such as 報告 bao4gao4 ‘report’ in (214):

- (213) 老師 答應 誰 來 幫忙
 lao3shi1 da2ying4 shei2 lai2 bang1mang2
 做 壁報 ?
 zuo4 bi4bao4 ?
 teacher agree who come help make poster
 ‘Who did the teacher agree can come and help with the poster?’

(214) 他 必須 報告 上級 哪裡 有
 ta1 bi4xu1 bao4gao4 shang4ji2 na3li3 you3
 狀況 發生
 zhuang4kuang4 fa1sheng1
 he must report superior where have condition happen
 ‘He has to report to his superior where there is an incident.’

- sentential arguments are not restricted to interrogative sentences, as in (215)–(216);
- either the agent or the goal can be co-referential with the subject of the thematic argument, also in (215) and (216);

(215) 媽媽_i 答應 我_j []_{i/j} 參加
 ma1ma0 da2ying4 wo3 [] chan1jia1
 母姊會
 mu3jie3hui4
 mother agree I join mothers.meeting
 ‘Mother agreed that I could join the PTA.’

(216) 服務小姐_i 吩咐 參觀人員_j
 fu2wu4xiao3jie3 fen1fu4 chan1guan1ren2yuan2
 []_j 要 帶 說明書
 [] yiao4 dai4 shou1ming2shu1
 female.attendant instruct visitor want bring instruction
 ‘The female attendant instructed the visitors to bring the instructional brochure (with them).’

(b) VE2 <AGENT GOAL>

VE2s need only two arguments to fulfill the requirements. Semantically, most VE2 verbs designate speech acts, as in 談論 tan2lun4 ‘talk and discuss’, 思考 si1kao3 ‘think’, 決定 juei2ding4 ‘decide’, 宣布 zuan1bu4 ‘declare’, 表示 biao3shi4 ‘express’, and 猜 chai1 ‘guess’:

(217) 主席 宣布 散會
 zhu3xi2 xuan1bu4 san4hui4
 chair declare adjourn
 ‘The chair declared the meeting adjourned.’

(218) 我們 討論 今天 大家 是否 能
 wo3men0 tao3lun4 jin1tian1 da4jia1 shi4fou3 neng2
 夜遊
 ye4you2
 we discuss today everybody whether can night.tour
 ‘We discussed if everybody could take a night tour today.’

7.2.6 *VF: Verb Phrase Object Activity Verbs**Classification Guidelines*

Verb phrase object activity verbs (VF) are transitive verbs taking verb phrases as objects. These verbs need two or three arguments to fulfill their semantic requirements.

Subclasses and Subcategorization Frames

They can be divided into two classes based on the number of arguments.

- (a) VF1 <AGENT GOAL>
 These verbs are two-place verbs which mostly denote the meaning of planning as evidenced by 企圖 *qi4tu2* ‘plot’ and 準備 *zhun3bei4* ‘prepare’. In general, their subjects control the subject of the object-verb phrase.¹³

► **Pattern 1** AGENT [NP] < * < GOAL [VP]

- (219) 他們 打算 出售 庫存 羊毛
ta1men0 da3suan4 chu1shou4 ku4cun2 yiang2mao2
 they plan sell stocked wool
 ‘They plan to sell the stocked wool.’

他們 *ta1men0* ‘they’ is both the subject of 打算 *da3suan4* ‘plan’ and 出售 *chu1shou4* ‘sell’.

- (b) VF2 <AGENT GOAL THEME>
 These are three-place verbs taking an AGENT and followed by a GOAL NP as well as a THEME VP. The GOAL NP serves not only as the object of the verb, but also as the subject of the THEME VP. In other words, they are so-called pivotal constructions or object control verbs. In (220), 市長 *shi4zhang3* ‘mayor’ is both the object of 強迫 *qiang2puo4* ‘force’ and the subject of 撤換 *che4huan4* ‘replace’.

- (220) 議員 強迫 市長 撤換 官員
yi4yuan2 qiang2puo4 shi4zhang3 che4huan4 guan1yuan2
 councilor force mayor replace official
 ‘The councilor forced the mayor to replace the official.’

These verbs usually carry the meaning of force, order, demand and encouragement, as exemplified by 強迫 *qiang2puo4* ‘force’, 令 *ling4* ‘order’, 指派 *zhi3pai4* ‘appoint’, 求 *qiu2* ‘demand’, and 鼓勵 *gu3li4* ‘encourage’. Although the theme arguments usually realize as verb phrases, they can also be noun phrases, as shown in the following sentences:

- (221) 請 市長 幫 他 了卻 心願
qing3 shi4zhang3 bang1 ta1 liao3que4 xin1yuan4
 ask mayor help he finish wish
 ‘(Someone) asked the mayor to help him fulfill his wish.’

- (222) 人民 無形中 助 了 台電
 ren2min2 wu2xing2zhong1 zhu4 le0 tai2dian4
 一臂之力
 yi2bi4zi1li4
 people imperceptibly aid ASP PN an arm's force
 'People have lent Tai Power a hand imperceptibly.'

Principles of analysis

(a) Confusion with serial verb constructions

When an action intransitive verb (VA4) is followed by a verb phrase to form a serial verb construction, as in (223a), the surface structure is the same as that of a VF1. However, VA4s can be used alone whereas VF1s have to be followed by a verb phrase to be complete. Thus, when a VA4 is followed by a verb phrase, we take it as a serial verb construction (see Mo et al. 1991) rather than a VF1.

- (223) (a) 檢方 為何 傳訊 他 兩人
 jian3fang1 wei4he2 chuan2xun4 ta1 liang3ren2
 出庭 (VA4) 作證 , 引起 各方
 chu1ting2 zou4zheng4 , yin3qi3 ge4fang1
 關注
 guan1zhu4
 the.prosecution for.what summons he two people appear.at.court
 testify attract each direction attention
 'Why the prosecution summoned both of them to (appear at)
 court to testify attracted attention from all sides.'
- (b) 檢方 為何 傳訊 他 兩人
 jian3fang1 wei4he2 chuan2xun4 ta1 liang3ren2
 出庭 (VA4) , 引起 各方 關注
 chu1ting2 , yin3qi3 ge4fang1 guan1zhu4
 the.prosecution for.what summons he two people appear.at.court
 attract each direction attention
 'Why the prosecution summoned both of them to (appear at)
 court attracted attention from all sides.'

In the same vein, object control verbs (VF2) and transitive action verbs (VC2) followed by a verb phrase (to form a serial verb construction) both appear in NP1-*NP2-VP patterns, and therefore may cause confusion in classification. We then have to resort to the meaning of the verb. If the verb needs two arguments to fulfill its semantic requirements, then it will be classified as a VF2, as is the case with 委任 wei3ren4 'appoint'. If the verb requires only one obligatory argument, then it will be subsumed under VC2, as exemplified by 打 da3 'hit'.

- (224) (a) *幻想 工作室 委託 代理人
 huan4xiang3 gong1zuo4shi wei3tuo1 dai4li3ren2
 imagine studio entrust agent
- (b) 幻想 工作室 委託 代理人
 huan4xiang3 gong1zuo4shi wei3tuo1 dai4li3ren2
 向 地方法院 提起 自訴
 xiang4 di4fang1fa3yuan4 ti2qi3 zi4su4
 imagine studio entrust proxy toward district.court bring private.prosecution
 ‘Imagine Studio entrusted a proxy to initiate a private prosecution.’
- (225) (a) 老王 打 小孩
 lao3wang2 da3 xiao2hai2
 old.Wang hit kid
 ‘Old Wang hit the kid.’
- (b) 老王 打 小孩 出氣
 lao3wang2 da3 xiao2hai2 chu1qi1
 old.Wang hit kid vent
 ‘Mr. Wang hit the kid to vent his anger.’

(b) Object verb phrases and nominalized verb phrases

Not all verbs taking verb phrases as objects should be subsumed under VF1. As 打擊 da3ji2 ‘hit’ in (226a) is a nominalized verb phrase (Yeh et al. 1992) (compare with (226b)), 表演 biao3yian3 ‘perform’ should be classified as a single argument verb (VC2).

- (226) (a) 涂鴻欽 現場 示範 表演
 tu2hong2qin1 xian4chang3 shi4fan4 biao3yian3
 打擊
 da3ji2
 PN on.scene demonstrate perform hit
 ‘Tu Hongching demonstrated and performed hitting (baseball) in front of a live audience.’
- (b) 布農 曹族 等 原住民
 bu4nong2 cao2zu2 deng3 yuan2zhu4min2
 表演 傳統 舞蹈
 biao3yian3 chuan2tong3 wu3dao4
 Bunun Tsou etc. indigenous.people perform traditional dance
 ‘Indigenous tribes such as Bunun and Tsou performed traditional dances.’

7.2.7 VG: Classificatory Verbs

Classification Guidelines

According to Chao (1968), there are only a few classificatory verbs and they typically serve to link two thematic roles, THEME and RANGE. In terms of meaning, the thematic role RANGE describes and determines the contents of the subject. Simply put, a classificatory verb functions like the pivot between two hands of a scale and balances the two parts. In addition, classificatory verbs are not compatible with aspect markers, or modified by degree adverbs, nor do they carry an adjunct of frequency or duration.

Subclasses and Subcategorization Frames

Classificatory verbs are classified into two types. The first type, VG1, need three required arguments.¹⁴ Examples include 稱呼 *cheng1hu1* ‘address’, 尊稱 *zun1cheng1* ‘address respectfully’, 喊 *han3* ‘call’, 譽 *yu4* ‘praise’, and 謙稱 *qian1chen1* ‘address humbly.’ The second type, VG2, need two required arguments. Examples include 姓 *xing4* ‘have surname’, 等於 *deng3yu1* ‘amount to’, 當 *dang1* ‘take something as...’, 號 *hao4* ‘have pseudonym’, and 係 *xi4* ‘be’.

(a) VG1 <AGENT THEME RANGE>

VG1 has a strong feature of transitivity, carrying an AGENT role.

► **Pattern 1** AGENT [NP] < * < THEME [NP] 《 RANGE [NP]

- (227) 塔克人 喊 它 死亡之谷
ta3ke1ren2 han3 ta1 si3wang2zhi1gu3
 Tark-people call it death-valley
 ‘The Tarks call it Death Valley.’

► **Pattern 2** AGENT [NP] < * < THEME [NP] 《 RANGE [PP[{{為wei2, 作zuo4}}]]

- (228) 朋友 都 稱呼 貝鎮坤 為
peng2you3 dou1 cheng1hu1 bei4zhen4kun1 wei2
 貝勒爺
bei4le4ye2
 friends all call PN as beile sir
 ‘(His) friends all address Beizhenkuen as Sir Beile.’

Currently, there are sentence constructions of classificatory verbs that deal with the complement introduced by the prepositions 為 *wei2* or 做 *zuo4*. Therefore, those verbs that need to co-occur with *wei2* or *zuo4* or those that require *wei2* or *zuo4* and which can only appear in BA3-constructions or BEI4-constructions are all classified into the type of VG1, such as 化

hua4 ‘become’, 改為 gai3wei2 ‘change ... to be’, 列為 lie4wei2 ‘list as’, and 算作 suan4zuo4 ‘classify as’.

- (b) VG2 <THEME RANGE> VG2 verbs are the prototypical classificatory verbs. The verb itself is not dynamic and only serves to link the meanings. The elements preceding or following the verb usually have a semantic relationship based on identity.

► **Pattern 1** THEME < * < RANGE [{NP, VP, S}]

- (229) 周瑜 字 公謹
 zhou1yu2 zi4 gong1jin3
 PN have courtesy name PN
 ‘Zhouyu’s courtesy name is Gongjing.’
- (230) 接受 賄賂 無異 於 公然
 jie1shou4 hui4luo4 wu2yi4 yu2 gong1ran2
 受辱
 shou4ru4
 accept bribe NEG differ from publicly be.humiliated
 ‘Accepting bribes is no different from being humiliated publicly.’
- (231) 糧價 的 完全 開放 等於
 liang2jia4 de1 wan2quan2 kai1fang4 deng3yu2
 中央 對 糧市 完全 失去
 zhong1yang1 dui4 liang2shi4 wan2quan2 shi1qu4
 控制
 kong4zhi4
 grain-price DE total open amount.to the.central.government to
 grain-market total lose control
 ‘A complete open and free pricing of grains means that the central government’s has lost control of the grain market.’

► **Pattern 2** THEME < * 《 RANGE [PP{為wei2, 作zuo4}]

- (232) 美國 工程師 督工 的 河濱
 mei3guo2 gong1cheng2shi1 du1gong1 de0 he2bin1
 機場 簡稱 為 中央碼頭
 ji1chang3 jian3cheng1 wei2 zhong1yang1ma3tou2
 American engineer supervise DE river.bank airport abbrevi-
 ated.name as Central Pier.
 ‘The River Bank airport, whose construction was supervised by U.S. engineers, had an abbreviated name—Central Pier.’

The difference between VG1 verbs and VG2 verbs lies in the number of required arguments: VG1 verbs require three arguments while VG2 verbs require two. However, because some VG2 verbs, such as 簡稱 *jian3cheng1* ‘has abbreviated name’ and 取名 *qu3ming2* ‘give a name’, may have a third optional argument, they can be confused with VG1 verbs. The way to differentiate VG1 verbs from VG2 verbs is to examine the arguments they carry. The VG1 verbs are not eligible in sentence constructions with two or more arguments though VG2 verbs are. For this reason, 尊稱 *zun1cheng1* ‘honorifically address’ should be classified as a VG1 group.

- (233) * 孔子 尊稱 為 至聖先師
 *kong3zi3 zun1cheng1 wei2 zhi4sheng4xian1shi1
 Confucius honorifically.name as saint.master

7.2.8 VH: State Intransitive Verbs

VH verbs describe a certain state. Such verbs require only one argument. Depending on the thematic roles they require, these verbs can be further classified into VH1 and VH2. The required argument of VH1 verbs carries the thematic role THEME while that of VH2 verbs carries the thematic role EXPERIENCER.

- 1 VH1 <THEME>
- 2 VH11: general intransitive verbs, such as 動聽 *dong4ting1* ‘nice to listen’, 浪漫 *lang4man4* ‘romantic’, and 特別 *te4bie2* ‘special’.

► **Pattern 1** THEME < *

- (234) 這首 歌 很 動聽
 zhe4shou3 ge1 hen3 dong4ting1
 this CL song very nice.to.listen
 ‘This song sounds beautiful.’

- 3 VH12: The verb can be followed by a measurement expression encoding range, such as 入超 *ru4chao1* ‘has import imbalance’, 增值 *zeng1zhi2* ‘has increased value’, 淨重 *jing4zhong4* ‘net weight’.

► **Pattern 1** THEME < * < RANGE

- (235) 這 個 箱子 重 80 公斤
 zhe4 ge4 xiang1zi0 zhong4 ba1shi2 gong1jin1
 This CL box weigh eighty kilogram
 ‘This box weighs eighty kilograms.’

- 4 VH13: The verb can be followed by a comparison standard in addition to a range thematic role. Examples include 大 da4 ‘large(r)’, 高 gao1 ‘tall(er)’, and 慢 man4 ‘slow(er)’. It is important to note here that Chinese state verbs (often called ‘adjectives’ in literature) have comparative meanings by default.

► **Pattern 1** THEME < * < COMPARISON [NP] < RANGE

- (236) 他 高 我 10 公分
 ta1 gao1 wo3 shi2 gong1fen1
 he tall me ten centimeters
 ‘He is taller than me by ten centimeters.’

- 5 VH14: The verb can be followed by an element of location. This type of verb usually has the locative inversion phenomenon, such as 瀰漫 mi2man4 ‘permeate’, and 矗立 zhu4li4 ‘stand tall and upright’¹⁵

► **Pattern 1** THEME < * < LOCATION [{NP,GP,PP}{{在zai4, 到dao4, 於yu2}}]

- (237) 那 間 別墅 矗立 在 山上
 na4 jian1 bie2shu4 zhu4li4 zai4 shan1shang4
 that CL villa stand on mountain.up
 ‘That villa stands tall and upright on the mountain.’

► **Pattern 2** LOCATION [{NP,GP,PP}] < * 《 COMPLEMENT [ASP [Di[{{了le1, 著zhe}}]]] < THEME [NP,-definite]

- (238) 山上 矗立 著 一 間 別墅
 shan1shang4 zhu4li4 zhe0 yi4 jian1 bie2shu4
 mountain.up stand ZHE one CL villa
 ‘On the mountain stands a villa tall and upright.’

- 6 VH15: The required argument occurs in the form of a sentence and takes the THEME role. This sentential argument can be found in the place of the subject or the object. Sentence Construction 3 in the following shows that the topic role is realized by the topicalized subject or object argument that stems from the sentential object or the sentential object of the verb. Verbs of this type include 值得 zhi2de ‘worthwhile’, 夠 gou4 ‘enough’, and 適合 shi4he2 ‘suitable’.

► **Pattern 1** THEME [{VP,S}] < *

- (239) 你 為 他 賣命 不 值得
 ni3 wei4 ta1 mai4ming4 bu4 zhi2de2
 you for him sell.life not worthwhile
 ‘It’s not worthwhile that you risk your life for him.’

▶ **Pattern 2** * < THEME [{VP, S}]

- (240) 不 值得 你 為 他 賣命
 bu4 zhi2de2 ni3 wei4 ta1 mai4ming4
 not worthwhile you for him sell.life
 'It's not worthwhile that you risk your life for him.'

▶ **Pattern 3** TOPIC [NP] < * < THEME [{VP, S}, +}SLASH]

- (241) 你 不 值得 為 他 賣命
 ni3 bu4 zhi2de2 wei4 ta1 mai4ming4
 you not worthwhile for him sell.life
 'It's not worthwhile that you risk your life for him.'

- 7 VH 16: These are unaccusative verbs. In addition to the required argument taking the THEME role, there can be another argument promoting the causer to the subject position while the argument taking the THEME role is demoted from the subject position to the object position, such as 辛苦 *xing1ku3* 'endure hardship', 豐富 *feng1fu4* 'be abundant', and 穩固 *wen3gu4* 'on solid ground'.

▶ **Pattern 1** THEME [NP] < *

- (242) 他 很 辛苦
 ta1 hen3 xin1ku3
 he very endure.hardship
 'He has a hard time/life.'

▶ **Pattern 2** CAUSER [{NP, VP, S}] < * < THEME [NP]

- (243) 這 件 事 辛苦 他 了
 zhe4 jian4 shi4 xin1ku3 ta1 le0
 this job endure.hardship him ASP
 'This task (relied on) his hard work (to be completed).'

- 8 VH 17: There can be a RECIPIENT, which precedes the verb and functions as the possessor of the THEME following the verb. Examples include 丟 *diu1* 'lose', 瞎 *xia1* 'blind', and 斷 *duan4* 'break'. This THEME is sometimes called the cognate subject in the literature.

▶ **Pattern 1** RECIPIENT < * 《 COMPLEMENT [ASP [Di [{了le, 著zhe}]]] <THEME [NP]

- (244) 他 瞎 了 一 隻 眼
 ta1 xia1 le0 yi1 zhi1 yan3
 he blind ASP one CL eye
 'He is blind in one eye.'

VH2 〈EXPERIENCER〉 Verbs can be classified into two types.

- 1 VH21: These are unergative verbs, such as 心酸 *xin1suan1* ‘sad’ and 想不開 *xiang3bu4kai1* ‘despondent’.

► **Pattern 1** EXPERIENCER 〈 *

- (245) 他 很 開心
 ta1 hen3 kai1xin1
 he very joyful
 ‘He is very joyful.’

- 2 VH22: These verbs are unaccusative verbs. There can be a causer argument preceding it while the EXPERIENCER originally preceding the verbs moves to the object position. Examples include 震驚 *cheng4jing1* ‘shocked’, 為難 *wei2nan2* ‘give someone a hard time’, 急煞 *ji2sha4* ‘make someone anxious’, and 感動 *gan3dong4* ‘be moved’.

► **Pattern 1** EXPERIENCER [{NP,GP}] 〈 *

- (246) 我 很 感動
 wo3 hen3 gan3dong4
 I very moved
 ‘I’m much moved.’

► **Pattern 2** CAUSER [{NP,VP,S}] 〈 * 〈 EXPERIENCER [NP]

- (247) 他 的 善心 感動 了 我
 ta1 de0 shan4xin1 gan3dong4 le0 wo3
 his kind.heart move ASP me
 ‘His kindness moved me.’

7.2.9 VI: State Quasi-transitive Verbs

Classification Guidelines

State quasi-transitive verbs and transitive verbs require two arguments. The object cannot follow the verb directly but is usually introduced by a preposition, such as 對 *dui4*, 為 *wei2*, 自 *zi4*, and 於 *yu2*, or it may appear by way of object fronting. Examples of this type include 傾心 *qing3xin1* ‘be enamoured with’, 鍾情 *zhong1qing2* ‘be infatuated with’, 失信 *shi1xin4* ‘eat one’s words’, and 受教 *shou4jiao4* ‘be willing to take advice’.

Subclasses and Subcategorization Frames

State quasi-transitive verbs can be classified into three types according to their arguments’ thematic roles. VII verbs include psyche verbs such as understand,

know, remember, believe, and so on. Two required arguments are experiencer and goal. Typical examples of this type include 心動 *xin1dong4* ‘be attracted to’, 灰心 *hui1xin1* ‘be hopeless’, 傾心 *qing3xin1* ‘be enamoured with’, 鍾情 *zhong1qing2* ‘be infatuated with’ and 失信 *shi1xin4* ‘fail to be truthful to’. Required arguments for VI2 verbs are theme and goal, and typical examples include 內行 *nei4hang2* ‘be an expert of’, 不利 *bu2li4* ‘detrimental’ and 十拿九穩 *shi2na2jiou3wen3* ‘have confidence in’. VI3 verbs require theme and source, and typical examples include 受教 *shou4jiao4* ‘be willing to take advice’, 取材 *qu3cai2* ‘get ideas from’ and 取信 *qu3xin4* ‘be trusted by’. The follow are basic sentence constructions:

(a) VI1 <EXPERIENCER GOAL>

► **Pattern 1** EXPERIENCER < GOAL [PP[對_{dui4}]] < *

- (248) 他 對 外界 的 輿論 一無所知
ta1 dui4 wai4jie4 de yu3lun4 yi4wu2suo3zhi1
 he toward outside DE public.opinion ignorant
 ‘He is ignorant of people’s opinions out there.’

► **Pattern 2** EXPERIENCER < * 《 GOAL [PP[於_{yu2}]]

- (249) 趙 署長 醉心於 政治
zhao4 shu3zhang3 zui4xin1-yu2 zheng4zhi4
 ZHAO director obsessed-with politics
 ‘Director Zhao is obsessed with political activities.’

(b) VI2 <THEME GOAL>

► **Pattern 1** THEME < GOAL [[PP[對_{dui4}, 以_{yi3}]]] < *

- (250) 那位 音樂家 對 即興曲 十分
na4wei4 yin1yue4jia1 dui4 ji2xing4qu3 shi2fen1
 內行
nei4hang2
 that CL musician toward impromptu very be.expert
 ‘That musician is an expert at impromptu music.’

► **Pattern 2** THEME < * 《 GOAL [[PP[於_{yu2}]]

- (251) 這 個 新 策略 乃 著眼 於
zhe4 ge4 xin1 ce4lue4 nai3 zhuo2yian3 yu2
 明年 的 收益
ming2nian2 de0 shou1yi4
 this CL new strategy be eye.on at next.year DE profit

‘This new strategy sets sights on next year’s profit.’

(c) VI3 <THEME SOURCE>

► **Pattern 1** THEME < * 《SOURCE [PP[{{自zi4, 於yu2}}]]

(252) 這 篇 文章 取自 天下 雜誌
 zhe3 pian1 wen2zhang1 qu3zi4 tian1xia4 za2zhi4
 this CL article be.sourced.from Commonwealth Magazine
 ‘This article was written based on material in Commonwealth Magazine.’

► **Pattern 2** THEME < SOURCE [PP[{{歸 gui1, 為 wei2}}]] < *

(253) 該 項 價值連城 的 寶物 原
 gai xiang jia4zhi2lian2cheng2 de0 bao3wu4 yuan2
 為 一 名 乞丐 所有
 wei2 yi4 ming2 qi3gai4 suo3you3
 this CL priceless DE treasure originally be one CL beggar
 possess
 ‘The priceless treasure was originally owned by a beggar.’

7.2.10 VJ: State Transitive Verbs

Classification Guidelines

Stative transitive verbs require two arguments. Typical examples include 迎合 ying2he2 ‘accommodate someone’s needs’, 久仰 jiu3yang3 ‘enchanted’, 皈依 gui1yi1 ‘be converted to’, 讚佩 zan4pei4 ‘appreciate and admire’, and 剩餘 sheng4yu2 ‘remain’.

Subcategorization Frames

Stative transitive verbs can be classified into three types according to their arguments’ thematic roles. VJ1 verbs require two arguments: THEME and GOAL. Typical examples of this type include 迎合 ying2he2 ‘accommodate someone’s needs’ and 適應 shi4ying4 ‘getting adjusted to’. VJ2 verbs are the psyche verbs expressing ‘understand’, ‘know’, ‘remember’ and ‘emotion’. The required arguments are EXPERIENCER and GOAL, and typical examples include 景仰 jing3yang3 ‘look up to’, 惦念 dian4nian4 ‘keep in mind’, 嫌疑 xian4ji4 ‘suspicious of’, 仇視 chou2shi4 ‘antagonize’ and 敬愛 jing4ai4 ‘hold dear with respect’. VJ3 verbs require that its subject be THEME and the object be RANGE; typical examples include 長達 chang2da2 ‘as long as (measure)’, 剩餘 sheng4yu2 ‘be left over, remain (with)’, 剩 sheng4 ‘remain (with)’.

and 休 (假) xiou1(jia4) ‘take a leave’.¹⁶ The follow are their basic sentence constructions:

(a) VJ1 <THEME GOAL>

► **Pattern 1** THEME < * < GOAL [NP]

- (254) 國旗 代表 國家
 guo2qi2 dai4biao3 guo2jia1
 national.flag represent country
 ‘The national flag represents the country.’

Some VJ1 verbs also have the following constructions:

► **Pattern 2** THEME < GOAL [PP] < *

- (255) 全部 的 證據 都 對 被告
 quan2bu4 de0 zheng4ju4 dou1 dui4 bei4gao4
 不利
 bu2li4
 all DE evidence all toward the.accused unfavorable
 ‘All of the evidence was not favorable to the accused.’

► **Pattern 3** THEME < * < GOAL [NP] < RANGE

- (256) 第二號 選手 領先 其他 人
 di4-er4-hao4 xuan3shou3 ling3xian1 qi2ta1 ren2
 二十 公尺
 er4shi2 gong1chi3
 number.two player lead other people twenty meter
 ‘The No. 2 player was ahead of the other players by twenty meters’.

(b) THEME < * < RANGE

- (257) 張 姓 選手 仍然 落後 一百
 zhang xing4 xuan3shou3 reng2ran2 luo4hou4 yi4bai3
 公尺
 gong1chi3
 PN surname player still fall.behind one.hundred meter
 ‘The player, whose surname is Zhang, still falls behind by 100 meters.’

(c) VJ2 <EXPERIENCER GOAL>

(d) EXPERIENCER < * < GOAL [NP]

- (258) 老 奶奶 篤信 佛教
 lao3 nai3nai0 du3xin4 fo2jjiao4
 old granny deeply.faithful Buddhism
 ‘The old granny is deeply faithful to Buddhism.’

(e) EXPERIENCER < GOAL [PP] < *

- (259) 無知 的 群眾 對 決策者 絲毫
 wu2zhi1 de0 qen2zhong4 dui4 jue2ce4zhe3 si1hao2
 不 諒解
 bu2 liang4jie3
 ignorant DE crowd toward decision.maker at.all not.appreciate
 ‘The ignorant crowd was not showing understanding toward the
 decision makers at all.’

(f) GOAL [NP] < EXPERIENCER [PP[受]] < *

- (260) 這位 長者 深受 大家 喜愛
 zhe3wei4 zhang3zhe3 shen1 shou4 da4jia1 xi3ai4
 愛戴
 ai4dai4
 this CL elder deeply receive people fond.support
 ‘People are deeply fond of this elder.’

(g) VJ3 < THEME RANGE >

(h) THEME < * < RANGE

- (261) 那 根 繩子 長 達 五 公尺
 na4 gen1 sheng2zi0 chang2 da2 wu3 gong1chi3
 that CL rope long to.the.extent five meter
 ‘That piece of rope measures 5 meters long.’

7.2.11 VK: State Sentential-object Verbs

Verbs of this type select a sentence as their argument. They require two arguments to satisfy their semantic considerations.

Classification Guidelines

- (a) If a stative verb can take a sentential argument that follows it, then it is classified as a VK verb. In semantics, we can use *yi2 jian4 shi4* ‘one thing’ to test the verb. For example, verbs such as 清楚 *qing1chu3* ‘clearly know about’, 明白 *ming2bai2* ‘realize, understand’, 期望 *qi2wang4* ‘expect’, and 顯示 *xian3shi4* ‘reveal’ can take *yi2jian4shi4* ‘one thing’ as its object (c.f. the example in (262)). In contrast, 嫌棄 *xian2qi4* ‘despise and complain’

and 嫉妒 *ji4du4* ‘be jealous’ cannot take *yi2 jian4 shi4* ‘one thing’ as its object and therefore do not belong to this category, as shown in (263).

- (262) (a) 我 明白 了 一 件 事
wo3 ming2bai2 le0 yi2 jian4 shi4
 I understand Asp. one CL matter
 ‘I understood one matter.’
- (b) 我 明白 他 何以 不 來
wo3 ming2bai2 ta1 he2yi3 bu4 lai2
 I understand he why not come
 ‘I understand why he is not coming.’
- (263) (a) *他 嫌棄 一 件 事
ta1 xian2qi4 yi2 jian4 shi4
 he despise.disregard one CL matter
 ‘He despises and disregards one matter.’
- (b) 他 嫌棄 他的 妻子 長得 醜
ta1 xian2qi4 ta1de0 qi1zi0 zhang3-de0 chou3
 he despise.disregard his wife appear-DE ugly
 ‘He despises and disregards his wife for being ugly.’
- (b) In terms of syntactic structures, stative sentential-object verbs (VK) and stative verb-object verbs (VL) have the same surface structure as NP1-*NP2-VP (c.f. 264a) and (264b). To distinguish between them, we can test whether a time expression can be inserted between the verb and NP2. If the insertion survives, then the verb belongs to the VK type, such as (264b).

- (264) (a) 我 明白 他 何以 沒來
wo3 ming2bai2 ta1 he2yi3 mei4lai2
 I understand he why not come
 ‘I understand why he is not coming.’
- (b) 我 明白 昨天 他 何以 沒來
wo3 ming2bai2 ta1 zuo2tian1 he2yi3 mei4lai2
 I understand yesterday he why not come
 ‘I understand why he did not come yesterday.’
- (265) (a) 我 任憑 小孩 哭鬧
wo3 ren4ping2 xiao3hai2 ku1nau4
 I allow all child cry
 ‘I let the kid cry unchecked.’
- (b) *我 任憑 昨天 小孩 哭鬧
wo3 ren4ping2 zuo2tian1 xiao3hai2 ku1nau4
 I allow all yesterday child cry

Subclasses and Subcategorization Frames

The sentential argument of this type of verbs can also appear in the form of a verbal phrase or a nominal phrase. There are two subtypes of VK verbs based on the thematic role of the argument preceding the verb:

(a) VK1 <EXPERIENCER GOAL>

- **Pattern 1** EXPERIENCER < * < GOAL [{NP, S, VP}]

(266) 他 不滿 業者 盜印 智慧財產
 ta bu4man3 yie3zhe3 dao4yin4 zhi4hui4cai2chan3
 he displease businessmen pirate.print intellectual.property
 ‘He is displeased that businessmen pirate intellectual property.’

- **Pattern 2** VK2 <THEME GOAL>

- **Pattern 1** THEME [{NP, VP, S}] < * < GOAL [{NP, S, VP}]

(267) 由 誰 擔任 投手 關係
 you2 shei2 dan1ren4 tou2shou3 guan1xi1
 中華 棒球隊 是否 晉級
 zhong1hua2 bang4qiu2dui4 shi4fou3 jin4ji2
 by who play pitcher have.consequence Chinese-Taipei base-
 ball.team whether qualify
 ‘Who gets the call to be pitcher will have consequences as to
 whether the Chinese Taipei team can qualify for next round.’

7.2.12 VL: Stative VP-object Verbs*Classification Guidelines*

VL verbs take a verbal expression as their object, and most of them can neither have the A-not-A form nor be duplicated. They rarely take an aspect marker.

VL verbs can be classified into four subcategories based on their number of arguments and their thematic roles.

- A. VL1 <EXPERIENCER GOAL> This type of verb usually expresses ‘volition’, such as 甘願 gan1yuan4 ‘be willing to’, 樂於 le4yu2 ‘be happy to’, and 甘於 gan1yu2 ‘be content with’. In addition to verbal expressions, some VL1 verbs can take a nominal expression as its object, as illustrated in the following constructions:
- B. EXPERIENCER [NP] < * < GOAL [{VP, NP}]

- (268) (a) 統治者 甘於 停留 在 十九
 tong3zhi4zhe2 gan1yu2 ting2liu2 zai4 shi2jiou3
 世紀
 shi4ji4
 Ruler be.content.with stay in nineteen century
 ‘The ruler is content to stay in the 19th century.’
- (b) 秦松 如此 甘於 孤寂 的 海外
 qin2song1 ru2ci3 gan1yu2 gu1ji2 de0 hai3wai4
 畫事 生涯
 hua4shi4 sheng1ya2
 Qinsong such be.content.with lonely overseas painting career
 ‘Qinsong is so content with his lonely painting career abroad’.

C. VL2 <THEME GOAL>

VL2 verbs are also two-argument verbs. These verbs are different from VL1, as they take a THEME as their subject. These verbs usually express the meaning of ‘being expert in’, such as 擅 shan4 ‘be good at’ and 專門 zhuan1men2 ‘be specialized in’. Some VL2 verbs can also take a nominal object.

D. THEME [NP] < * < GOAL [{VP, NP}]

- (269) (a) 師父 擅長 修理 各種 電器
 shi1fu4 shan4chang2 xiu1li3 ge4zhong3 dian4qi4
 Master be.expert.in fix all.kinds electronic.device
 ‘The master is expert in fixing all kinds of electronic appliances.’
- (b) 棲霞寺 和尚 多 擅長 武學
 qi1xia2si4 he2shang4 duo1 shan4chang wu3xue2
 qixia.temple monk many expert.in martial.art
 ‘Many monks in Qixia Temple are expert in martial arts.’

E. VL3 <GOAL THEME>

In a verbal expression taking the role of THEME, the object is often preposed and placed before the verb such as 輪 lun2 ‘take turns’ and 該 gail (c.f. VH15 verbs). Sentence constructions are shown in the following:

F. * < GOAL [NP] < THEME [VP]

- (270) 今年 輪 台中 市 主辦 區運會
 jin1nian2 lun2 tai2zhong1 shi4 zhu3ban4 qu1yun4hui4
 this.year own.turn Taizhong city host area. athletic.games
 ‘It is Taizhong City’s turn this year to host the area athletic games.’

G. TOPIC [NP] < * < GOAL < THEME [VP, +SLASH]

- (271) 今年 區運會 輪 台中市 主辦
 jin1nian2 qu1yun4hui4 lun2 tai2zhong1shi4 zhu3ban4
 this.year area.athletic.games take.turns Taizhong city host
 ‘As for the area athletic games, it is Taizhong City’s turn to host it this year.’

H. VL4 <CAUSER GOAL THEME>

VL4s are three-argument verbs expressing ‘causative’ meanings. They take not only the CAUSER as its subject, but also a nominal GOAL or a verbal THEME as its object. The causer is not limited to a nominal phrase; it can also be a verb expression or a sentence. Examples include 使 shi3, 讓 rang4, and 令 ling4.

I. CAUSER [NP, VP, S] < * < GOAL [NP] < THEME [VP]

- (272) (a) 今年 二月 的 政變 使 泰國
 jin1nian2 er4yue4 de0 zheng4bian4 shi3 tai4guo2
 受到 傷害
 shou4dao4 shang1hai4
 this.year February DE coup cause Thailand receive hurt
 ‘The coup in February this year made Thailand suffer.’
- (b) 訓練 他們 使 我們 不 需要
 xun4lian4 ta1men0 shi3 wo3men0 bu4 xulyao4
 為 他們 打仗
 wei4 ta1men0 da3zhang4
 train them cause us not need for them fight.in.war
 ‘Training them so that it will be unnecessary for us to fight the war for them.’
- (c) 一家人 都 克勤克儉 使 家計
 yi4jia1ren2 dou1 ke4qin2ke4jian3 shi3 jia1ji4
 逐漸 改善
 zhu2jian4 gai3shan4
 whole.family all diligent.frugal make household.livelihood
 gradually improve
 ‘The whole family are diligent and frugal, allowing the family’s standard of living to improve gradually.’

Subclasses and Subcategorization Frames

The subcategories of VL verbs can be clearly differentiated because the thematic roles and the number of arguments are explicitly different. However, the distinctions among VL1, VL2 and DbA (modals, 法相詞) deserve our attention when we conduct the analysis.

- A. From the perspectives of grammatical function
In terms of sentence structures, VL1, VL2, and Db_a all follow the subject and precede a verbal expression. However, Db_a verbs are adjuncts with reference to grammatical functions; if they are removed it does not affect the sentence's completeness. In contrast, VL1 and VL2 verbs are the main verbal expression; if they are removed or omitted, both the meaning of the sentence and its syntactic structure would be affected.
- B. From a semantics perspective
Although some of VL1 and VL2 verbs have the semantic meaning of evaluation or judgment, such as 樂於 *le4yu2* 'be happy to, enjoy', unlike Db_a verbs, they do not need to involve the speaker's attitude. Therefore, when a lexical item implicates the speaker's attitude and judgment, it is definitely a Db_a verb instead of a verb-object verb (c.f. Section 5.2 for detailed definitions and description about Db_a verbs (法相詞) and their grammatical behavior).

Notes

- 1 The square shows the condition of judgment making and the circle shows the result. The symbol indicates 'true'.
- 2 In fact, we had earlier classified verbs into three types—active, stative, and classificatory verbs—according to Chao (1968). When analyzing verbs, we found verb classificatory verbs' semantic meanings and syntactic behaviors indeed differ from activity and state verbs. Hence we decided to distinguish verb classificatory verbs from activity and state verbs.
- 3 There is an order of priority in deciding thematic roles. For instance, verb-verbs such as 打算 *da3suan4* 'plan', 決定 *jiue2ding4* 'decide', 縱容 *zong4rong2* 'indulge', and 主張 *zhu3zhang1* 'advocate' denote psychological activity, but we do not assign the experiencer role to their subject. The reason is that the verb has the [+causative] semantic feature. Therefore, we assign the AGENT role to the SUBJECT. In other words, the AGENT role is assigned before the EXPERIENCER role in priority order.
- 4 It is important to note that verbs denoting the competence or ability of memory do not belong to this sub-class; e.g. 「過目不忘」 *guo4mu4bu2wang2* 'to have the ability of memory by sight'.
- 5 In principle, verb-verbs are classified according to their thematic roles. However, the number of active intransitive verb-verbs is great, and therefore, it is far from adequate to classify them as based solely on thematic roles. Semantic meanings, thus, are able to aid in further classification.
- 6 In general, location phrases are optional as they are not included in sentence structures of verbs. However, as locative inversion is a critical characteristic of VA11 and VA12, location phrases are specified for them.
- 7 Verbs of this type such as 佔便宜 *zhan4pian2yi2* 'take advantage of', 拆台 *chai1tai2* 'pull the rug from under', and 灌迷湯 *guan4mi2tang1* 'flatter' have an internal verb-object structure and require two arguments. The object can be internally embedded and referred to as a possessive object (Huang 1987). See the following examples:

(273) 張三 佔 李四 (的) 便宜
zhang1san1 zhan4 li3si4 (de1) pian2yi2
 Zhangsan take Lisi of advantage
 'Zhangsan took advantage of Lisi.'

(274) 王 先生 總 愛 拆 馬 小姐 (的) 台
 wang xian1sheng1 zong3 ai4 cai1 ma3 xiao3jie3 (de1) tai2
 Wang mister always like pull.the.rug.from under Miss Ma's feet
 'Mr. Wang always likes to pull the rug from under Miss Ma's feet'.

(275) 你 別 灌 他 迷湯 了
 ni3 bie2 guan4 ta1 mi2tang1 le0
 You not flatter him up
 'Don't flatter him!'

8 For these sorts of objects, the corpus only distinguishes between goal and theme; the former refers to the target undergoing the action, and the latter undergoes certain changes, such as a change of state or location. Nevertheless, there are cases where the thematic role is not easy to identify. See the following examples.

(276) <AGENT BENEFACTOR>
 我們 幫 張三 慶功
 wo3men1 bang1 zhang1san1 qing4gong1
 We help Zhangsan celebrate achievement
 'We helped Zhangsan celebrate his achievement.'

(277) <AGENT INSTRUMENT>
 游擊隊 以 草叢 蔽身
 you2ji2dui4 yi3 cao3cong2 bi4shen1
 guerrillas use grass plexus hide.body
 'The guerrillas used the bushes to hide their bodies'.

The object of some VB verbs is clearly neither goal nor theme. Considering the current system of thematic roles and the small number of such cases, we still assign the thematic role to their object.

- 9 This type of sentence construction is considered colloquial. On the surface, the verb-verb carries two arguments like a double-object construction. However, the basic meanings of the verb-verbs 賺 zhuan4 'earn' and 吃 chi1 'eat' only require two arguments. Therefore, they are classified in the VC31 category.
- 10 Although double-object verbs are classified as activity verbs, some of them are state verbs in nature, such as 欠 qian4 'owe', 輸 shu1 'lose', and 贏 ying2 'win'. Such cases are few, so we do not create for them a subcategory of state verbs.
- 11 In this example, we do not further classify 借貸 jie4dai4 'loan' into VD1 or VD2. It is important to note that not all double-object verb-verbs can be classified to one sub-class only. The semantic meaning of verbs such as 借 jie4 'borrow' and 租 zu1 'rent' has become neutral. If there is no preposition introducing the argument, it is not easy to decide whether the activity in the sentence ta1 jie4 wo3 yi4 zhi1 bi3 'He lent/borrowed a pen to/from me' is 借出 jie4chu1 'lend' or 借入 jie4ru4 'borrow'. Therefore, 我 wo3 'I' in this case can be the SOURCE or the GOAL. Such verb-verbs are thus classified into both VD1 and VD2.
- 12 Grammatical as two sentences.
- 13 However, there are cases of VF1 verbverbs that have an internal verb-object structure, such as 派員 pai4yuan2 'dispatch', and 僱工 gu4gong1 'hire workers'. Both of these have two different types of control. For instance,

(278) 第四 分局 派員 封鎖 現場
 di4si4 fen1ju2 pai4yuan2 feng1suo3 xian4chang3

Fourth substation dispatch blockade scene

‘The fourth substation dispatched its officers to blockade the (crime) scene.’

(279) 區 漁會 僱 工 整頓 港區
qu1 yu2hui4 gu4 gong1 zheng3dun4 gang3qu1

Area fishing.industry.association hire worker fix up port.area

‘The local fishing industry association hired workers to fix up the port area.’

In example (278), we can see that 第四分局 di4si4 fen1ju2 ‘the fourth substation’ is not only the agent of 派員 pai4yuan2 ‘dispatch’ but also the agent of 封鎖 feng1suo3 ‘blockade’.

In addition, the agent of 封鎖 feng1suo3 ‘blockade’ can also be 員 yuan2 ‘staff’ in 派員 pai4yuan2 ‘dispatch’. Example (279) illustrates the same phenomenon: The agent of 整頓 zheng3dun4 ‘fix up’ is both 區漁會 qu1yu2hui4 ‘local fishing industry association’ and 工 gong1 ‘worker’ in 僱工 gu4gong1 ‘hired workers’.

- 14 Of the classificatory verbs in the corpus, VG1 verbs do not entirely correspond to the definition of classificatory verb. However, because their semantic and syntactic behaviors are similar to classificatory verbs, they are classified as such.
- 15 Both VH14 verbs and VC33 verbs have the LOCATION inversion phenomenon, but their argument structures are different: VH14 has <THEME> while VC33 has <AGENT THEME>.
- 16 Of the VJ3 verbs, only a few have both THEME and RANGE arguments. Verbs such as 留下 liu2xia4 ‘remain, leave’, 具備 ju4bei4 ‘have all of’, 擁有 yong3you3 ‘own’, 害(病) hai4bing4 ‘come down with’, and 短缺 duan3que1 ‘lack’ have arguments that behave more like RECIPIENT and THEME. Considering their small number, they are classified in this category.