

Chinese Descriptive Pivotal Construction: Taxonomy and Prototypicality*

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Language and Linguistics
17(4) 529–573
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sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/1606822X16632115
lin.sagepub.com



This study, which is a preliminary survey of the Chinese descriptive pivotal construction (D-PVC), focuses primarily on the taxonomy and prototype effects of this construction. In contrast to previous discussions, which have been based on observations from a limited number of examples, this study extracted data from both a large-scale Chinese corpus and Internet sources. In the D-PVC, usually the pivot N (i.e. noun phrase between matrix verb and complement verb) is indefinite. It is often, but not always, preceded by a numeral phrase. Statistically the D-PVC instances in which the pivot N is preceded by a classifier phrase dominate. Particularly, the classifier phrases preceding the pivot N are most often the combination of ‘one’ and a classifier. Based on the semantic properties of the matrix verbs, instances of this construction are classified into nine primary types. The D-PVC instances are prototypically structured and those in which the matrix verbs designate ‘presence’ are the central members. Determined by multiple factors, the non-prototypical instances deviate from the central members in different ways. This indicates that D-PVC instances are semantically related to one another continuously. That the D-PVC permits considerable semantic extension from its prototype characterization accords well with the facts that in modern Mandarin, the D-PVC is productive and capable of encoding a wide range of semantic variations.

Key words: descriptive pivot construction, prototype effects, taxonomy

1. Introduction

1.1 Chinese descriptive pivotal construction

This article presents a preliminary survey of the modern Mandarin complex sentences exemplified by those in (1):

- (1) a. 我有幾個朋友都挺喜歡這車的。 [http://car.bitauto.com/luxgen7mpv/koubei/523381; 24 September 2013]¹
 Wo you ji ge peng you dou ting xi huan zhe che de.
 1st sg have several CL friend friend all very like happy this car PART²
 ‘I have several friends (and they) all like this car very much.’

* I am grateful to the anonymous reviewers for their invaluable comments and suggestions. Any remaining errors are certainly mine.

¹ The date indicates when the example was posted online.

² Abbreviations used in this paper are: ADV: adverbial phrase marker; AFF: affix; CONJ: conjunction; COP: copula; CRS: currently relevant state; CSC: complex stative construction; DIS: disposal marker; DUR: durative aspect; EXP: experiential aspect; GEN: genitive; NAME: name; NOM: nominalizer; PART: particle; PAS: passive marker; PFV: perfective aspect; pl: plural; sg: singular.

- b. 我得了個消息就是我有地中海貧血。[<http://jkee.net/neike/ej/1874742.html>; 12 May 2012]
Wo de le ge xiaoxi jiu shi wo you Dizhonghai pin xie.
 1st sg gain PFV CL news just be 1st sg have NAME poor blood
 ‘I got some information (and it) is that I have Thalassemia.’
- c. 從半山腰亂草裡鑽出個人來向他招手。(Lüliang)
Cong ban shan yao luan cao li zuan chu ge ren lai
 from half mountain waist mess grass inside dig out CL person come
xiang ta zhao shou.
 toward 3rd sg wave hand
 ‘A person came out of the disorderly grass halfway up the hill (and the person) waved to him.’
- d. 我單位蓋了一間簡易大廠房價值 30 萬。
 [http://www.cnnsr.com.cn/cswd/show_32352.shtml; 5 December 2009]
Wo dan wei gai le yi jian jian yi da chang fang
 1st sg single position cover PFV one CL simple easy big factory house
jia zhi 30 wan.
 price worth thirty ten thousand
 ‘My unit built a big simple factory building valued at three hundred thousand.’
- e. (三女玉兒)嫁了個丈夫也是大學生。(Liulei)
(San nü Yuer) jia le ge zhangfu ye shi da xue sheng.
 three daughter NAME marry PFV CL husband also be big learn student
 ‘(Someone’s third daughter Yuer) married a husband (and he) had also graduated from college.’
- f. 他們忽然看見個和尚吊在上面。(Lu Xiaofeng)
Tamen huran kan jian ge heshang diao zai shang mian.
 3rd pl suddenly look see CL monk hang at up face
 ‘They suddenly saw a monk hanging above.’
- g. (公司)剛招了個姑娘懶得要命只會發嗲。
 [bbs.xmhouse.com/thread-437407-1-1.html; 2 December 2010]
(Gong si) gang zhao le ge gu niang
 (public in charge) just hire PFV CL aunt mother
lan de yao ming zhi hui fa dia.
 lazy ADV want life only can submit delicatened
 ‘(The company) recently hired a girl (and she) is extremely lazy and always speaks coquettishly.’

- h. 姑娘唱了一首歌也是附加動作的。
 [http://www.360doc.com/content/12/0512/09/2291239_210453500.shtml; 12 May 2012]
Guniang chang le yi shou ge ye shi fu jia dong zuo de.
 girl sing PFV one CL song also be attach add move act PART
 ‘The girl sang a song (and it) also had the pre-designed actions.’
- i. (我) 曾記得教過一位學生經常違紀偷盜。
 [http://blog.ifeng.com/article/16815446.html; 16 March 2012]
 (Wo) *ceng ji de*
 1st sg once remember get
jiao guo yi wei xue sheng jingchang wei ji tou dao.
 teach EXP one CL learn student often violate discipline steal steal
 ‘(I) remember that I once taught a student (and s/he) often violated the rules and stole (things).’

In Li & Thompson’s (1981) terminology, these sentences have the discursive function ‘to present or introduce a noun phrase to be described’ or ‘to introduce a new referent into the conversation and add some information about it’ (1981:611–612). For example, in (1e), *zhangfu* ‘husband’ is introduced into discourse by the verb *jia* ‘to marry’; *yeshi daxuesheng* ‘had also graduated from college’ is the speaker’s comment on it. Typically, such sentences are associated with colloquial language, or informal speech and writing. They are productive in modern Mandarin and assigned the same idiomatic semantic interpretation. I therefore view them as instances of an independent grammatical construction.

The construction instantiated by the sentences in (1) has attracted little attention and has never been treated as an independent and productive construction in the literature, although it has been mentioned under different names (see e.g. Chao 2010; Fan 1996; Huang 1987; LaPolla 1995; Li 1986; Li & Thompson 1981; McCawley 1988; Xing 2004). For example, Li & Thompson (1981) termed these sentences the ‘realis descriptive clause construction,’ whereas Huang (1987) viewed them as a subtype of the existential sentence. Chao (2010), Li (1986), Fan (1996), and Peng (2006) classified them as the Chinese pivotal construction (PVC). Particularly in Peng (2006), the sentences in (1) were understood as examples of the ‘descriptive pivotal construction’ (D-PVC), in which the second verb presents a comment on or description of the noun phrase (the ‘pivot N’ hereafter).

1.2 About Chinese pivotal constructions

The defining characteristic of Chinese PVCs is that a noun phrase is simultaneously the subject of the second verb and the direct object of the first verb (see e.g. Li & Thompson 1981; Tang 1999). Because of the loose definition, PVC is actually a cover term encompassing several types of constructions, which share a structural property but have different semantic interpretations (Chao 2010; Fan 1996; Li 1986; Peng 2006, 2013; etc). Consider the following examples:

- (2) a. (寶慶)雇了個拿槍的把門。(Gu Shu)
 (Baoqing) gu le ge na qiang de ba men.
 (NAME) hire PFV CL hold gun GEN guard door
 ‘(Baoqing) hired a gunman to watch the door.’
- b. 他羨慕哥哥有這樣的幸運。(Sanjia)
 Ta xian mu ge ge you zhe yang de xing yun.
 3rd sg envy love old brother old brother have this kind GEN happy luck
 ‘He envied his elder brother because the latter has this kind of good luck.’

The sentence in (2a) exemplifies the ‘manipulative pivotal construction’ (M-PVC), in which the subject of V_1 manipulates (anticipates, or facilitates, or blocks) N’s involvement in V_2 . Example (2b) exemplifies the ‘cause-complement pivotal construction’ (C-PVC), in which the action/event designated by the second verb, the event/state that N is involved in, is idiomatically interpreted as the cause/excuse for the action/event designated by the matrix verb to occur (Peng 2013:54–55). In both cases, the two verbs are not just syntactically but also semantically related. Constrastingly, in the D-PVC, there is no semantic connection between the two verbs. For example, in (1e), *yeshi daxuesheng* ‘had also graduated from college’ is not related to the matrix verb *jia* ‘to marry’ in any sense. The former is neither the consequence caused by the latter, nor the reason/excuse triggering the latter’s occurrence. In other words, typically, in the D-PVC, the second verb is semantically independent of the matrix verb.

Chinese PVCs can be formalized as $s[NP'_{i\text{ }vp}[V_1\text{ }NP_j\text{ }s[PRO_j\text{ }V_2]]]$ (‘ V_1+N+V_2 ’ for short) (Peng 2006, 2013). NP'_i , which does not mandatorily occur, represents the sentential subject. NP_j represents the ‘pivot’ (hereafter the ‘pivot N’), which is simultaneously the object of V_1 and the subject of V_2 . PRO, the abstract pronominal item, is co-indexed with NP_j (e.g. Tang 1999:88). Both NP_j and $s[PRO_j\text{ }V_2]$ are the complements of V_1 . As a typical analytic language, Chinese generally lacks overt case, (in)finiteness marking and inflectional morphology (e.g. Li & Thompson 1981; Norman 1988; Tan 1993). Consequently, in Chinese, no isomorphism between the event integration levels and syntactic devices can be found. All PVC instances, including all the three types M-PVC, C-PVC, and D-PVC, share the same superficial form, namely ‘ V_1+N+V_2 ’, regardless of the level of event integration (Peng 2006, 2013).

1.3 Goal and data

The goal of the present study is twofold: (i) to establish a taxonomy of the modern Mandarin D-PVC based on the semantic properties of the matrix verbs, that is, the manner in which the new referent denoted by the pivot N is introduced into conversation; and (ii) to present a prototype account of D-PVC instances. I show that D-PVC instances are prototypically structured and that those in which the matrix verbs designate the ‘presence’ of the pivot N are the central members in the category.

Previous discussions of what I call the D-PVC have been based on observations from sporadic data. In this article, both synchronic and diachronic data are examined. These data were collected mainly from two sources. All the historical data and portions of the modern Mandarin data were extracted from the Center for Chinese Linguistics (CCL) corpus. Designed and created by

Peking University, the CCL corpus consists of a modern Mandarin section and an ancient Chinese section. Both sections cover a vast array of different genres and contain whole printed texts rather than fragments. All the sources of data searched in the CCL are listed in the Appendix. Modern Mandarin data were mainly extracted from online sources (novels, news, the Bulletin Board System, etc.) through Google (www.google.com), one of the most popular Internet search engines used for Chinese-language online searching. All web data had been accessed online by 20 November 2014.

The paper is organized in the following fashion. Section 2 presents a brief overview of the structural properties of Chinese PVCs and the attributes of the D-PVC. Section 3 discusses the constraints on the matrix verb and the noun phrase it introduces, the aspectual marking of the matrix verbs, and the transformation between the relative clause construction and this construction. Section 4 presents a detailed discussion of the primary D-PVC types and subtypes and establishes a taxonomy of this construction. Section 5 provides a discussion of the prototype effects in the primary D-PVC types. Section 6 concludes the paper.

2. Preliminaries of the D-PVC

2.1 The range of V_1 and V_2

Huang (1987:230–231) argued that V_1 in the D-PVC belongs to an open class. He predicted that any transitive verb, as long as it is followed by the perfective aspect marker *le* or the experiential aspect marker *guo*, could head this type of sentence. In other words, to be followed by *le* or *guo* is the only condition for a transitive verb to head the D-PVC. This is problematic for several reasons. First, my study shows that some transitive verbs, which can be followed by *le*, *guo*, or both, may not occur in the V_1 slot of the D-PVC. For example, my survey (both in CCL and through Google) shows that it is not possible for many transitive verbs, for example *biaoyang* ‘praise’, *guanxin* ‘be concerned with’, *fang’ai* ‘impede’, *ma* ‘blame’, *jianshao* ‘reduce’, *songyong* ‘instigate’, *hong* ‘fool’, etc., to be used as V_1 in the D-PVC.

Second, the V_1 in the D-PVC is not limited to transitive verbs. Some D-PVC sentences may be headed by intransitive verbs, particularly verbs of posture, for example *zuo* ‘sit’, *zhan* ‘stand’, as in example (3a); and verbs of motion, for example *jinlai* ‘come in’, *lai* ‘come’, as in (3b):

- (3) a. 紅屋門口站著個黑髮女人在打電話。
 [http://tieba.baidu.com/p/2733433565; 30 November 2013]
Hong wu men kou zhan zhe ge hei fa nü ren
 red house door mouth stand DUR CL black hair female person
zai da dian hua.
 at hit electric speech
 ‘A black haired woman is standing at the entrance of the Red House and chatting over the phone.’
- b. 過來一服務員挺漂亮的。
 [www.haapii.com/n/20141018/186664.html; 15 October 2014]
Guo lai yi fu wu yuan ting piaoliang de.
 pass come one serve work member very beautiful PART
 ‘There came a waitress (and she) was very beautiful.’

Third, an aspect marker after V_1 is not always necessary, as will be seen in §3.1.

It is not the task of the present study to investigate exactly how many verbs (either transitive or intransitive) can head the D-PVC in modern Mandarin. The 132 verbs listed in Table 1, all attested in my data (either from Internet sources, the CCL corpus, or both), are among the most common verbs heading the D-PVC.

Table 1: The most common verbs heading D-PVC in modern Mandarin

生	<i>sheng</i>	‘bear’	種	<i>zhong</i>	‘plant’	長	<i>zhang</i>	‘grow’
裝	<i>zhuang</i>	‘contain’	躺	<i>tang</i>	‘lie down’	藏	<i>cang</i>	‘hide’
生	<i>sheng</i>	‘grow’	有	<i>you</i>	‘have’	沒(有)	<i>mei (you)</i>	‘not have’
有	<i>you</i>	‘there be’	沒(有)	<i>mei (you)</i>	‘there be not’	缺	<i>que</i>	‘lack’
吊	<i>diao</i>	‘hang’	背	<i>bei</i>	‘carry (on back)’	織	<i>zhi</i>	‘weave’
推薦	<i>tuijian</i>	‘recommend’	提拔	<i>tiba</i>	‘promote’	選	<i>xuan</i>	‘select’
請	<i>qing</i>	‘recruit’	聘請	<i>pinqing</i>	‘hire’	聘	<i>pin</i>	‘hire’
招	<i>zhao</i>	‘hire’	收(徒弟)	<i>shou (tudi)</i>	‘take apprentice’	提出	<i>tichu</i>	‘propose’
認	<i>ren</i>	‘take (e.g. a godson)’	養	<i>yang</i>	‘feed’	租	<i>zu</i>	‘rent’
得	<i>de</i>	‘gain’	修	<i>xiu</i>	‘build’	蓋	<i>gai</i>	‘build’
淘	<i>tao</i>	‘search and select’	抓(到)	<i>zhua (dao)</i>	‘catch’	逮	<i>dai</i>	‘catch’
搶	<i>qiang</i>	‘rob’	偷	<i>tou</i>	‘steal’	撿	<i>jian</i>	‘find’
扔	<i>reng</i>	‘throw away’	釣	<i>diao</i>	‘fish; angle’	送	<i>song</i>	‘send’
交(友)	<i>jiao (you)</i>	‘make friends’	用	<i>yong</i>	‘use’	試	<i>shi</i>	‘try’
修	<i>xiu</i>	‘repair’	看中	<i>kanzhong</i>	‘be infatuated with’	看上	<i>kanshang</i>	‘be infatuated with’
演	<i>yan</i>	‘perform’	唱	<i>chang</i>	‘sing’	拍(攝)	<i>pai (she)</i>	‘shoot (a film)’
複製	<i>fuzhi</i>	‘copy’	抱	<i>bao</i>	‘hold’	做(夢)	<i>zuo (meng)</i>	‘dream’
認識	<i>renshi</i>	‘be acquainted with’	學	<i>xue</i>	‘learn’	讀	<i>du</i>	‘read’
教	<i>jiao</i>	‘teach’	朗誦	<i>langsong</i>	‘recite’	放	<i>fang</i>	‘broadcast’
畫	<i>hua</i>	‘draw’	寫	<i>xie</i>	‘write’	聽(到)	<i>ting (dao)</i>	‘hear’
碰到	<i>pengdao</i>	‘meet’	摸(到)	<i>mo (dao)</i>	‘touch’	聞(到)	<i>wen (dao)</i>	‘smell’
嫁	<i>jia</i>	‘marry (a man)’	開(餐館)	<i>kai (canguan)</i>	‘open a restaurant’	辦(刊物)	<i>ban (kanwu)</i>	‘edit (a journal)’
申請	<i>shenqing</i>	‘apply’	問	<i>wen</i>	‘ask’	開(處方)	<i>kai (chufang)</i>	‘prescribe’
獎	<i>jiang</i>	‘award’	出(版)	<i>chu (ban)</i>	‘publish (a book)’	發(表)	<i>fa (biao)</i>	‘publish (a paper)’
少	<i>shao</i>	‘have less in number’	多	<i>duo</i>	‘have more in number’	坐	<i>zuo</i>	‘sit’
打破	<i>da (po)</i>	‘break’	摔(碎)	<i>shuai (sui)</i>	‘break’	下(載)	<i>xia (zai)</i>	‘download’
殺出	<i>shachu</i>	‘come out’	冒出	<i>maochu</i>	‘come out’	寫有	<i>xieyou</i>	‘write (on something)’
放	<i>fang</i>	‘lay’	戴	<i>dai</i>	‘wear’	存在	<i>cunzai</i>	‘exist’
磕	<i>ke</i>	‘knock’	派	<i>pai</i>	‘dispatch’	收養	<i>shouyang</i>	‘adopt’
買	<i>mai</i>	‘buy’	捕	<i>bu</i>	‘catch’	應聘	<i>yingpin</i>	‘accept an offer (of job)’
拎	<i>ling</i>	‘carry (with hand)’	丟	<i>diu</i>	‘lose’	寄	<i>ji</i>	‘mail’
介紹	<i>jieshao</i>	‘introduce’	錄製	<i>luzhi</i>	‘record’	收治	<i>shouzhi</i>	‘admit and treat a patient’
找	<i>zhao</i>	‘find’	念	<i>nian</i>	‘read’	吃	<i>chi</i>	‘eat’
遇到	<i>yudao</i>	‘meet’	娶	<i>qu</i>	‘marry (a woman)’	辦(證)	<i>ban (zheng)</i>	‘apply for (credentials)’
拉	<i>la</i>	‘send (by taxi)’	換	<i>huan</i>	‘change’	站	<i>zhan</i>	‘stand’
處(對象)	<i>chu (duixiang)</i>	‘date’	站有	<i>zhanyou</i>	‘stand (on something)’	差	<i>cha</i>	‘lack’
參觀	<i>canguan</i>	‘visit’	嫩	<i>dun</i>	‘stew’	上傳	<i>shangchuan</i>	‘upload’
導演	<i>daoyan</i>	‘direct’	帶	<i>dai</i>	‘train an apprentice’	指導	<i>zhidao</i>	‘guide’
找	<i>zhao</i>	‘find’	弄	<i>nong</i>	‘get; make’	進來	<i>jinlai</i>	‘enter’
編	<i>bian</i>	‘program’	編	<i>bian</i>	‘fabricate’	編	<i>bian</i>	‘write (music)’
尋	<i>xun</i>	‘look for’	推出	<i>tuichu</i>	‘launch (new product)’	塗	<i>tu</i>	‘smear; paint’
過來	<i>guolai</i>	‘come over’	住	<i>zhu</i>	‘live’	搶	<i>qiang</i>	‘rush to purchase’
搶	<i>qiang</i>	‘rob’	參觀	<i>canguan</i>	‘visit’	忘	<i>wang</i>	‘forget’
花	<i>hua</i>	‘cost’	討好	<i>taohao</i>	‘court’	浪費	<i>liangfei</i>	‘waste’

As there is no semantic connection between V_1 and V_2 , in neither mode is the V_2 portion restricted (i.e. the comment on or the description of the pivot N). Instead, the V_2 slot is open to both action/event and state of being and can be filled by virtually any VP and AP and even NP. V_2 can even be an NP, because in modern Mandarin an NP can be used as a predicate (see e.g. Chao 2010:55–57; Zhu 1982:102–103). For example:

- (4) a. 買了個桌子三條腿。(Chao 2010:74)
Mai le ge zhuo zi san tiao tui.
 buy PFV CL table AFF three CL leg
 ‘(Someone) bought a table (and it) has three legs.’
- b. 種了棵棉花 2 米高，128 個桃。
 [http://bbs.tianya.cn/post-470-16823-1.shtml; 8 October 2011]
Zhong le ke mian hua er mi gao, yi bai er
 plant PFV CL cotton flower two meter high one hundred two
shi ba ge tao.
 ten eight CL peach
 ‘(Someone) planted a cotton tree (and it) was two meters high and has grown 128 cotton bolls.’

In (4a), the V_2 portion, *santiao tui* ‘three legs’, is an NP, whereas in (4b), the V_2 portion is the coordination of *2 mi gao* and *128 ge tao*. In either case, the V_2 portions indicate the state of being of the pivot Ns. In other cases, namely (1c), (1f), and (1i), the V_2 portions indicate the actions/events that the pivot Ns are involved in.

2.2 The informationally strong V_1 in D-PVC

D-PVC sentences in modern Mandarin have two modes. The first is formalized as [(Subj) [V_1 +N+ V_2]], as exemplified by (1a), (1b), and (1d)–(1i). In this type of D-PVC, V_1 is usually preceded by a subject, either an agent or a theme, which may be dropped, as in (1i). A D-PVC sentence of this mode is formed by two topic-comment type assertions; one is about the sentence subject and the other is about the pivot N (LaPolla 1995:315). The second form can be formalized as [(Loc) [V_1 +N+ V_2]], as exemplified by (1c), (3a), and (3b). This form is typically initiated by a location phrase (indicating either location or direction). For convenience, we may call the first and second modes the *subject-initiated mode* and the *location-initiated mode*, respectively.

Constructions similar to the location-initiated mode have been reported in other languages, for example American English (Lambrecht 1988; McCawley 1988; Prince 1981; etc.) and Boni, an Eastern Cushitic language spoken in Kenya (Sasse 1987:541–542). The following are some English examples, which have been called the ‘presentational amalgam construction’ in Lambrecht (1988:335) and the ‘pseudo-relative construction’ in McCawley (1988:451):

- (5) a. *There’s something keeps upsetting him.* (Lambrecht 1988:319)
 b. *Well, I have a friend of mine called me.* (Lambrecht 1988:319; Prince 1981:238)
 c. *We got a lot of fancy Cadillac cars don’t tip.* (Prince 1981:247)

Usually considered substandard, these sentences are bi-clausal sequences, in which the first clause either is a *there*-construction of the existential subtype or contains the predicate *have* (or *got*) with the subject as a personal pronoun (typically in the first person singular). In either case, the postverbal NP is indefinite and the VP in the second clause is tensed (Lambrecht 1988:319). Interestingly, these sentences typically have an informationally weak main clause and a highly informative second clause (see e.g. Prince 1981:247). By contrast, in neither the subject-initial mode nor the location-initial mode of Chinese D-PVC is the main clause informationally weak. This can clearly be seen in the sentences of (1). In either mode, V_1 is diversified in terms of semantic properties. In other words, unlike the presentational amalgam construction in American English, Chinese D-PVC has undergone considerable semantic extension from the instances in which V_1 has existential or possessive meaning.

2.3 D-PVC as a single sentence

Consisting of two clauses, a D-PVC sentence is pronounced with a single intonation contour (LaPolla 1995:314; Li & Thompson 1981:617–618). However, it has also been argued that a D-PVC sentence is ‘no different from two sentences juxtaposed together’ (Li & Thompson 1981:617). This argument has been based on the observation that a D-PVC sentence may allow a pause, optionally marked by a pause marker, for instance the particles 啊 *a*, 吧 *ba*, and 呢 *ne*, to be inserted between the pivot N and V_2 . For example, (6b) and (7b) are the analogues of the juxtaposed sentences of (6a) and (7a), respectively:

- (6) a. 我打破了一個茶杯很值錢。(Li & Thompson 1981:612)
Wo da po le yi ge cha bei hen zhi qian.
 1st sg beat broken PFV one CL tea cup very worth money
 ‘I broke a tea cup (and it) was worth a lot of money.’
- b. 我打破了一個茶杯啊，很值錢。
Wo da po le yi ge cha bei a, hen zhi qian.
 1st sg beat broken PFV one CL tea cup PART very worth money
 ‘I broke a tea cup (and it) was worth a lot of money.’
- (7) a. 他養了一條狗我要買。(Li & Thompson 1981:615)
Ta yang le yi tiao gou wo yao mai.
 3rd sg raise PFV one CL dog 1st sg want buy
 ‘He has raised a dog, and I want to buy it.’
- b. 他養了一條狗吧，我要買。
Ta yang le yi tiao gou ba, wo yao mai.
 3rd sg raise PFV one CL dog PART 1st sg want buy
 ‘He has raised a dog, and I want to buy it.’

Semantically, no obvious distinction can be made between the two pairs, that is, (6a) and (6b), and (7a) and (7b).

3. Morphosyntactic and semantic constraints on the D-PVC

3.1 The indefiniteness of the pivot N and the numeral phrase preceding it

Usually the pivot N in the D-PVC is indefinite (see e.g. Huang 1987; LaPolla 1995; Li & Thompson 1981; McCawley 1988; etc). In my data, no instance with definite pivot N is identified. In modern Mandarin, an indefinite noun is often—but not always—preceded by a numeral phrase (see Li & Thompson 1981:126–132). In all the D-PVC examples discussed previously, a classifier phrase occurs in the position immediately preceding the pivot N.

In the case of the combination of ‘one’ and a classifier, the former can be omitted, as in (1b), (1c), (1e), (1f), etc., or alternatively, the latter can be dropped, as in (3b). The classifier phrase may also be formed by a classifier and other numerals. As in (1a), the numeral is *ji* ‘several’, whereas in (8a), (8b), and (8c), the numerals are *er* ‘two’, *san* ‘three’, and *shi’er* ‘12’, respectively:

- (8) a. 最近淘了兩件 T 恤衫還不錯。
 [www.kuloumao.com/archives/1937.html; 23 March 2013]
Zui jin tao le liang jian T xu hai bu cuo.
 most close wash PFV two CL T shirt still not wrong
 ‘Recently (someone) purchased two T-shirts online (and they) were pretty good.’
- b. 找了三個師傅都無法把鎖打開。
 [www.xstks.com/NewsView.asp?id=268; 10 September 2014]
Zhao le san ge shi fu dou wu fa ba
 find PFV three CL teacher assistant all have no method DISP
suo da kai.
 lock hit open
 ‘(Someone) found three qualified workers (and) none of them can open the lock.’
- c. 南海突然冒出 12 艘中國先進潛艇與美軍對峙。
 [www.ilovemil.com/html/wfgc/2009/0818/5591.html; 18 August 2009]
Nan hai tu ran mao chu 12 sou Zhongguo xian jin
 south sea sudden such reek out twelve CL NAME early enter
qian ting yu Mei jun dui zhi.
 dive vessel with NAME army opposite confront
 ‘In the South China Sea, 12 Chinese advanced submarines emerged suddenly (and they) stood facing the US warships.’

The pivot N can be preceded by an adjective phrase, for example (9a). Cases in which N is preceded by neither a numeral phrase nor an adjective phrase are also identified, as in (9b):

- (9) a. 試了很多手機都無法顯示 Google 地圖。
 [http://www.douban.com/group/topic/36293014/; 26 January 2013]
Shi le hen duo shou ji dou wu fa
 try CL very more hand machine all have no method
xian shi Google di tu.
 display show NAME earth map
 ‘(I) have tried many cell phones (but none) can display Google Maps.’
- b. 差不多家家門口都站有難民在等候打發。(Li Zicheng)
Cha bu duo jia jia men kou dou zhan you
 difference not more family family door mouth all stand have
nan min zai deng hou dafa.
 disaster people at wait wait relieve
 ‘The refugees stood at the entrance of almost every house waiting for help.’

In (9b), not preceded by any numeral phrase, the pivot N *nanmin* ‘refugee’ is still indefinite.

An interesting observation is that statistically the D-PVC instances in which the pivot N is preceded by a classifier phrase dominate. This has been supported by my survey of the instances headed by the 132 verbs listed in Table 1 (*you* ‘there be’ and *you* ‘have’ not included) through Google. In total, 880 D-PVC instances headed by these verbs were identified. Due to limitations of space, only those instances headed by the top 40 verbs are displayed in Table 2. In this table, columns I and II list the numbers of the instances in which N is not preceded by any numeral phrase and those in which N is preceded by an adjective phrase, respectively. Both columns III and IV list the numbers of the instances in which N is preceded by a classifier phrase. In column III, the numeral is not ‘one’, whereas in column IV, the numeral is ‘one’ (including the cases in which ‘one’ or the classifier is omitted). Among the 880 instances, the numbers of those in which N is not preceded by any numeral phrase and those in which N is preceded by an adjective phrase are 31 (3.5%) and 14 (1.6%), respectively. The number of the instances in which N is preceded by a classifier phrase is 835 (94.9%). In particular, among the 835 sentences, the numbers of those in which the numeral is not ‘one’ and those in which the number is ‘one’ are 164 (18.6%) and 671 (76.3%), respectively. This may allow us to reach two conclusions, namely that (i) the instances in which the pivot N is preceded by a classifier phrase are dominant, and (ii) the classifier phrases preceding the pivot N in the D-PVC are statistically most often the combination of ‘one’ and a classifier.

Table 2: The occurrences of the D-PVC instances headed by 40 verbs

Verbs heading D-PVC instances			Total occurrences	I	II	III	IV
買	<i>mai</i>	'buy'	72	1	0	12	59
發	<i>fa</i>	'publish'	46	0	2	21	23
養	<i>yang</i>	'feed'	32	0	0	5	27
淘	<i>tao</i>	'search and select'	32	1	0	4	27
試	<i>shi</i>	'try'	31	1	4	14	12
找	<i>zhao</i>	'find'	28	1	0	11	16
下(載)	<i>xia (zai)</i>	'download'	28	0	0	4	24
弄	<i>nong</i>	'get; make'	26	0	2	3	21
租	<i>zu</i>	'rent'	26	0	0	3	23
得	<i>de</i>	'gain'	24	14	0	0	9
過來	<i>guolai</i>	'come over'	23	0	0	8	15
釣	<i>diao</i>	'fish; angle'	21	0	0	4	17
寫	<i>xie</i>	'write'	20	0	1	3	16
坐	<i>zuo</i>	'sit'	20	0	0	7	13
看中	<i>kanzhong</i>	'be infatuated with'	20	0	0	0	20
站	<i>zhan</i>	'stand'	18	0	0	5	13
拍(攝)	<i>pai (she)</i>	'shoot (a film)'	18	0	0	1	17
生	<i>sheng</i>	'bear'	17	1	0	7	9
長	<i>zhang</i>	'grow'	16	0	7	5	4
來	<i>lai</i>	'come'	16	0	0	5	11
嫁	<i>jia</i>	'marry (a man)'	13	0	0	0	13
躺	<i>tang</i>	'lie down'	12	0	0	1	11
進來	<i>jilai</i>	'enter'	12	0	0	0	12
吃	<i>chi</i>	'eat'	12	1	0	0	11
畫	<i>hua</i>	'draw'	12	0	0	3	9
種	<i>zhong</i>	'plant'	10	1	0	2	7
給	<i>gei</i>	'give'	10	1	0	2	7
做	<i>zuo</i>	'do; make'	10	2	0	2	6
選	<i>xuan</i>	'select'	10	0	0	3	7
撿	<i>jian</i>	'find'	10	2	0	1	7
栽	<i>zai</i>	'plant'	10	1	0	2	7
送	<i>song</i>	'send'	10	0	0	5	5
放	<i>fang</i>	'lay'	9	1	0	0	8
唱	<i>chang</i>	'sing'	9	0	0	0	9
織	<i>zhi</i>	'weave'	9	1	0	1	7
蓋	<i>gai</i>	'build'	9	0	0	2	7
認識	<i>renshi</i>	'be acquainted with'	7	0	0	1	6
摸(到)	<i>mo (dao)</i>	'touch'	7	2	0	1	4
上傳	<i>shangchuan</i>	'upload'	7	1	0	2	4
娶	<i>qu</i>	'marry (a woman)'	6	0	0	0	6
Total			730	32	16	150	532

3.2 The aspectual marking of V_1

Often, in a D-PVC instance, V_1 is immediately followed by an aspect marker, either *le*, the perfective aspect marker, as in (6a) and (7a), or *zhe*, the durative aspect marker in (3a) and (10a), or even *guo*, the experiential aspect marker in (1i) and (10b):

- (10) a. 客廳裡坐著個男的在看報。(Huang Cheng)
Ke ting li zuo zhe ge nan de zai kan bao.
 guest hall inside sit DUR CL male GEN at see newspaper
 ‘In the living room, a man was sitting reading a newspaper.’
- b. 記得雪村唱過一首歌是紀念 911 的。
 [http://www.cctvdream.com.cn/bbs/forum.php?mod=viewthread&tid=2488;
 12 September 2011]
Ji de Xuecun chang guo yi shou ge shi ji
 recall obtain NAME sing EXP one CL song be memorize
nian 911 de.
 miss 911 GEN
 ‘(I) remember that Xuecun once sang a song (and it) has the theme of commemorat-
 ing the 9.11 attacks.’

The occurrence of an aspect marker after V_1 may be obligatory, as in (10b), in which the aspect marker *guo* cannot be dropped:

- (11) *記得雪村唱一首歌是紀念 911 的。
Ji de Xuecun chang yi shou ge shi ji nian 911 de.
 recall obtain NAME sing one CL song be memorize miss 911 GEN

In my data, cases in which V_1 is not followed by any aspect marker are also identified, for instance (1a), (1c), and (3b). Following are two more examples:

- (12) a. 我認識一朋友有鳥類恐懼症。
 [http://article.yeeyan.org/view/276349/251707; 25 February 2012]
Wo ren shi yi peng you you niao lei kong
 1st sg recognize know one friend friend have bird category afraid
ju zheng.
 fear symptom
 ‘I know a friend (and s/he) has ornithophobia.’
- b. 辛辛苦苦養個兒子是白眼狼。
 [http://story.cnxianzai.com/love/2012/0222/212943.shtml; 22 February 2012]
Xin xin ku ku yang ge er zi shi bai yan lang.
 toil toil bitter bitter raise CL son son be white eye wolf
 ‘(Someone) painstakingly raised a son (and he) was an unfaithful guy.’

As will be presented in detail in §4, the D-PVC instances are classified into different primary types and subtypes, based on the semantic properties of V_1 . My study shows that there may not be a strict correlation between the selection of aspect marker and the semantic type (or subtype) of the D-PVC. However, some regularities, although not very strong, can still be seen. First, both the perfective aspect marker *le* and experiential aspect marker *guo* are found to occur in the D-PVC instances of almost all semantic types. For example, *le* occurs in (1b) (type ‘acquire’), (1d) (type ‘produce’), (1e) (type ‘relate’), etc.; *guo* occurs in (1i) (type ‘cognition’) and (10b) (type ‘perform’). In (13) there are more examples in which V_1 is followed by *guo*. Examples (13a), (13b), and (13c) belong to the semantic types of ‘acquire,’ ‘produce,’ and ‘experience,’ respectively.

- (13) a. 買過幾個 powerbank 都不是很好用。[www.jbtalks.cc/thread-1546946-1-1.html; 25 June 2014]
Mai guo ji ge powerbank dou bu shi hen hao yong.
 buy EXP several CL NAME all not be very good use
 ‘(I) once bought several powerbanks (and all) were awkward to use.’
- b. (張柏芝) 拍過兩部電影都有沐浴鏡頭。
 [bbs1.people.com.cn/postDetail.do?id=117224177; 14 March 2012]
(Zhang Baizhi) pai guo liang bu dian ying dou you
 NAME shot EXP two CL electricity shadow all have
mu yu jing tou.
 wash wash mirror head
 ‘(Zhang Baizhi) once appeared in two movies (and both) had a bath scene.’
- c. 在歐洲喝過一種穀物酸奶超好喝。[club.yhd.com/review/s35653746.html; 10 August 2013]
zai Ouzhou he guo yi zhong gu wu suan nai
 at NAME drink EXP one CL cereal material sour milk
chao hao he.
 super good drink
 ‘(I) once drank a kind of cereal yogurt in Europe (and it) was really good.’

Second, my data show that the durative aspect marker *zhe* occurs exclusively in the instances of the ‘present’ type, in which the pivot N is present at a specific place, as in (3a), (10a), and (14a). However, the perfective aspect marker *le* can also be used in this semantic type, for example (14b). Interestingly, in the D-PVC instances of the ‘present’ type, *zhe* and *le* are interchangeable.

- (14) a. 山坡上坐著個女孩不說話也不動。[www.tao628.com/hejylc/4503.html; 9 October 2014]
Shan po shang zuo zhe ge nü hai bu shuo hua
 mountain slope up sit DUR CL girl child not speak word
ye bu dong.
 also not move
 ‘On the hillside sat a girl (and she) was neither speaking nor moving.’

- b. 在圖書館旁邊坐了個印度妹子在打電話。

[https://twitter.com/yiminshao/.../16700368333740851; 7 February 2012]

Zai tu shu guan pang bian zuo le ge Yindu mei
at picture book house side side sit PFV CL NAME sister
zi zai da dian hua.

AFF at hit electronic speech

‘Next to the library there sat an Indian girl making a phone call.’

Zhe in (14a) can be replaced by *le*. *Le* in (14b) can be substituted with *zhe*. In neither case is the sentence meaning changed.³

Five of the verbs listed in Table 2, namely *zuo* ‘sit’, *zhan* ‘stand’, *zhu* ‘live’, *tang* ‘lie down’, and *fang* ‘lay’, can head the ‘present’ type instances. The aspectual markings of these verbs in the D-PVC instances they head are summarized in Table 3.

Table 3: The ratio of the aspect markers *zhe* and *le* following V_1 in the ‘present’ instances

	坐 <i>zuo</i> ‘sit’	站 <i>zhan</i> ‘stand’	住 <i>zhu</i> ‘live’	躺 <i>tang</i> ‘lie down’	放 <i>fang</i> ‘lay’	Total
耀 <i>zhe</i>	12	15	4	9	2	42
了 <i>le</i>	7	2	2	1	7	19
Ø	1	1	0	2	0	4

‘耀’ indicates that V_1 is not followed by any aspect marker. Clearly, in the ‘present’ type instances, *zhe*, although substitutable by *le*, is still the most common aspect marker after V_1 .

³ Scholars have long noticed that in the modern Mandarin existential sentences headed by verbs of position, the durative marker *zhe* and the perfective marker *le* can be exchanged without affecting sentence meaning (for details, see Fan 1963; Li 1986; Nie 1989; Ren 2000). For example (cited in Li 1986:73–84):

- (i) a. 門上掛著一條精細的綠紗簾。(Cao Yu)

Men shang gua zhe yi tiao jing xi de lü sha lian.
door up hang DUR one CL fine tiny GEN green gauze curtain
‘A fine green color gauze curtain is hung over the door.’

- b. 大廳上面還掛了一塊黑底金字匾額。(Ding Ling)

Da ting shang mian ha gua le yi kuai hei di jin zi
big hall up face still hang PEF one CL black bottom gold character
bian e.
board forehead
‘A horizontal inscribed board with black background and golden characters is hung over the hall.’

It is possible to replace *zhe* in (ia) with *le* and replace *le* in (ib) with *zhe* without changing the meanings of the sentences. A similar observation can be made in the $V_{PRE}NV_2$ instances of D-PVC.

Among the 880 instances I collected through Google, the numbers of the instances in which V_1 is followed by the aspect markers *le*, *zhe*, and *guo*, and those in which the aspectual property of V_1 is not overtly marked, are 597 (67.8%), 46 (5.2%), 63 (7.2%), and 174 (19.8%), respectively. This not only leads to the conclusion that overall *le* is the most common aspect marker following V_1 in the D-PVC, but also further supports the assertion made in §2.1, that to be followed by an aspect marker is not among the conditions for a verb to head the D-PVC.

3.3 D-PVC and the relative clause construction

Semantically, the D-PVC is rather similar to a relative clause construction (Li & Thompson 1981:612). For example, (15a) and (15b) are the relative clause construction analogues of the D-PVC sentences in (6a) and (7a), respectively:

- (15) a. 我打破了一個很值錢的茶杯。
Wo da po le yi ge hen zhi qian de cha bei.
 1st sg beat broken PFV one CL very worth money GEN tea cup
 ‘I broke a tea cup that was worth a lot of money.’
- b. 他養了一條我要買的狗。
Ta yang le yi tiao wo yao mai de gou.
 3rd sg raise PFV one CL I want buy GEN dog
 ‘He has raised one of those dogs I want to buy.’

Semantically, (15a) and (15b) are not obviously different from their analogues in (6a) and (7a). According to Li & Thompson (1981:614), the two pairs differ from each other in terms of the way the information about the pivot N is described:

The message conveyed by the realis descriptive clause is that the property it names is entirely incidental, while the message conveyed by the relative clause is that there is a preestablished class of such items. By *preestablished* we mean that the item with the property in question is assumed or has already come up at some point in discussions between the speaker and the hearer; they can be said to have tacitly agreed on the existence of a class of items with this property.

For example, the difference between *wo yao mai* in (7a) and (15b) is this: in the former, it asserts that the subject has raised a dog and that, ‘as it happens, the speaker wants to buy it,’ whereas in the latter, it is claimed that ‘there exists, for the speaker and hearer, an understood class of dogs consisting of the dogs the speaker wants to buy, and s/he just happens to have raised such a dog’ (Li & Thompson 1981:615).

Based on my data, however, not all D-PVC instances have the analogue of a relative clause construction. This indicates that the transformation from the D-PVC to the relative clause construction is not without condition. Consider the following example extracted from CCL:

- (16) a. 我們前年結婚, 生了個孩子沒了。 (Baokan 1994)
Women qian nian jie hun, sheng le ge hai zi mei le.
 1st pl before year knit marriage bear PFV CL kid AFF no CRS
 ‘We got married the year before last year and then gave birth to a child (but s/he) has died.’
- b. *生了個沒了的孩子。
Sheng le ge mei le de hai zi.
 bear PFV CL no PFV GEN kid AFF

My study shows that 346 out of the 880 D-PVC instances searched online do not have the analogue of a relative clause construction. For example:

- (17) a. 我在房前種了棵櫻桃樹活了。
 [http://yezhu.qingdaonews.com/viewthread.php?tid=167086; 17 May 2009]
Wo zai fang qian zhong le ke ying tao shu huo le.
 1st sg at room front plant PFV CL cherry peach tree live CRS
 ‘I planted a cherry tree in front of the house (and it) is alive.’
- a'. *我在房前種了棵活了的櫻桃樹。
Wo zai fang qian zhong le ke huo le de ying tao shu.
 1st sg at room front plant PFV CL live PFV GEN cherry peach tree
- b. 閨蜜老公拍了部電影今天上映啦！
 [https://www.flickr.com/photos/rickyzy/14768995086; 31 July 2014]
Gui mi lao gong pai le bu dian ying
 inner chamber honey AFF public shot PFV CL electric show
jin tian shang ying la!
 today day up show PART
 ‘My ladybro’s husband has made a film (and it) is being shown at the cinema today!’
- b'. *閨蜜老公拍了部今天上映的電影啦！
Gui mi lao gong pai le bu
 inner chamber honey AFF public shot PFV CL
jin tian shang ying de dian ying la!
 today day up show GEN electric show PART

The V_2 portions in (16a), (17a), and (17b) differ from those in (15) in two regards. First, in the instances of both (16) and (17), the V_2 portions denote the changes in state of being, whereas in (15), the V_2 portions, including both *hen zhiqian* (15a) and *wo yao mai* (15b), denote the subjective evaluations, typically, one of the static features of the pivot Ns, *chabei* ‘tea cup’ and *gou* ‘dog’, respectively. Second, the changes denoted by the V_2 portion in (16a), (17a), and (17b) take place later in time than the event/action denoted by V_1 . By contrast, in both sentences in (15), the V_2 portions, which denote the static features of the pivot Ns, are not related to V_1 temporally. Take

(16a) as an example: the event *meile* denotes the change occurring later than the event *sheng* ‘bear’. It is therefore impossible for *meile de haizi* to be the preestablished item resulting from the event *sheng* ‘bear’. For a similar reason, *huole de yingtao shu* cannot be a preestablished item resulting from the event *zhong* ‘plant’.

To summarize, the V_2 portion of a D-PVC sentence may or may not have the potential to be understood as the item of a ‘preestablished class’. The relative clause construction analogues of (16a), (17a), and (17b) will become acceptable if the V_2 portions are changed into one denoting the state of being, as in (18a). The relative clause construction analogues of the sentences such as those in (15) will become unacceptable if the V_2 portions are replaced by one denoting the static features of the pivot N, as in (18b).

- (18) a. 我在房前種了棵很高的櫻桃樹。
Wo zai fang qian zhong le ke hen gao de ying tao shu.
 1st sg at room front plant PFV CL very tall GEN cherry peach tree
 ‘I planted a cherry tree in front of the house (and it) was very tall.’
- b. *他養了一條送給朋友的狗。
Ta yang le yi tiao song gei peng you de gou.
 3rd sg raise PFV one CL send give friend friend GEN dog

Therefore, whether a D-PVC instance can be transformed as a relative clause construction or not depends to a large extent on the nature of the V_2 portion, but not the syntactic and semantic properties of V_1 . In other words, to be transformed into a relative clause construction is also not among the defining characteristics of D-PVC.

4. Taxonomy of the D-PVC

As shown in the preceding section, to generalize over the morphosyntactic and semantic properties of modern Mandarin D-PVC is no easy task. However, a deep understanding of this construction may not be possible without a clear and practical way to organize the concrete instances and distinguish them in a systematic manner. In this section, I shall establish a taxonomy of modern Mandarin D-PVC. The taxonomy may serve at least three purposes, namely: (i) to improve our ability to explain the relationships among different D-PVC instances; (ii) to enable us to reconstruct the evolutionary pathways that have led to the diversity of D-PVC instances; and (iii) to improve our ability to predict the further development of this construction. Due to space limitations, in the present discussion, my focus will be on the first purpose; the remaining two will need to be left for future research.

4.1 Methodology

Despite their differences, in both prototype model and exemplar model of categorization, classification is determined by the similarity of an item to the underlying category representation (see Nosofsky 1988, 1992). Linguistic categorization on the basis of semantic similarity has been discussed in both the prototype model (e.g. Lakoff 1987; Taylor 1995, 1998) and exemplar model

(e.g. Bybee 2010; Bybee & Eddington 2006). For the purpose of the present discussion, the classification and taxonomy of D-PVC will be based on the semantic similarities of the matrix verbs.

All instances of a construction share the same general semantic interpretation, which is independent of any components of the construction. However, for a concrete instance of the construction, the matrix verb plays the most important role in terms of carrying the semantic information of a construction, as has been discussed in the literature. For example, Murphy (1982) has argued that a matrix verb is the predictor of the sentence meaning (see also Goldberg 2009:106). Croft (2001:258–259) calls matrix verbs the ‘primary information-bearing units’ (PIBUS), which largely determine the event-level semantic properties of the constructions. Studies have also shown that both verbs and constructions have the potential to convey the general, overall event interpretation of the meaning of a clause (Goldberg 2009:105). A construction is a form-meaning pair. From a slightly different perspective, in grammatical constructions, the syntactic properties, which are among the form side features, are also related to the meanings of the matrix verbs. For example, it has been argued that the syntactic behavior of a verb can be predicted from its meaning (Levin 1993:4–5; see also Hale & Keyser 1987). Experiments have been done to show that there are ‘robust correlations’ between verb syntax and semantics; that is, verbs that are intimately related semantically are also related in their syntax (Fisher et al. 1991:373–374; see also Goldberg 2006:58–59). This would also indicate that the classification and taxonomy of the instances of the PVCs on the basis of the semantic properties of main verbs are suitable for the purpose of the present discussion. For example, the classification and taxonomy of the C-PVC, another type of Chinese PVC, on the basis of the semantic similarities of the matrix verbs, have been discussed in Peng (2013). For example, the instances headed by the verbs with the meaning of judging (a person or a thing) form the $V_{JUD}NV_2$ subtype of C-PVC; those headed by verbs designating emotion and punishment form the $V_{EMO}NV_2$ and $V_{PUN}NV_2$ subtypes, respectively.

If we adhere to the same approach, we can further assemble the instances of a primary type into different subtypes. Instances of the same subtype share more common properties with one another than those from different subtypes; a given PVC instance is included in that subtype with the instances with which it shares the greatest number of properties. Therefore, in the C-PVC, as shown in Peng (2013), based on the more detailed semantic properties of the matrix verbs, $V_{JUD}NV_2$ can be further classified into roughly four subtypes: CRITICIZE (headed by e.g. *piping* ‘criticize’, *zebei* ‘criticize’); SATIRIZE (headed by e.g. *fengci* ‘satirize’, *waku* ‘speak ironically’); TEASE (headed by e.g. *chaoxiao* ‘sneer at’, *xiaohua* ‘tease’); and PRAISE (headed by e.g. *biaoyang* ‘praise’, *kua* ‘praise’). This methodology will be adopted in the classification and taxonomy of the D-PVC.

4.2 The primary types and subtypes of the D-PVC

The aforementioned approach can be applied to both the classification of D-PVC instances into primary types and the further assembling of D-PVC sentences of a primary type into different subtypes. Essentially, the instances of the D-PVC differ from one another regarding how the pivot N is introduced into discourse or conversation, which are to a large extent decided by the semantic properties of the matrix verb (V_1). Based on the manner in which the pivot N is introduced into discourse, we may classify D-PVC instances in modern Mandarin into nine primary types. Each of the sentences in (1) represents a unique primary type. The semantic interpretations and forms of the nine primary types are collated in Table 4:

Table 4: The primary types of D-PVC in modern Mandarin

Name	The manner in which the pivot N is introduced into discourse	Form	Example
<i>present</i>	The pivot N is present at a specified place.	$V_{PRE}NV_2$	(1a)
<i>emerge</i>	The pivot N comes into existence.	$V_{EME}NV_2$	(1b)
<i>acquire</i>	The subject catches or gains possession of the pivot N.	$V_{ACQ}NV_2$	(1c)
<i>produce</i>	The subject brings the pivot N into existence.	$V_{PRO}NV_2$	(1d)
<i>relate</i>	The subject establishes a marriage (or adoptive, or master-apprentice) relationship with the pivot N.	$V_{REL}NV_2$	(1e)
<i>experience</i>	The subject senses or participates in the event/action that affects or involves the pivot N.	$V_{EXP}NV_2$	(1f)
<i>manipulate</i>	The subject manipulates the pivot N so that the latter is involved in some event/action.	$V_{MAN}NV_2$	(1g)
<i>perform</i>	The subject performs (or sings, or broadcasts) music or reads a text denoted by the pivot N.	$V_{PER}NV_2$	(1h)
<i>cognition</i>	The subject imparts or gains the knowledge or skill denoted by the pivot N.	$V_{COG}NV_2$	(1i)

4.2.1 The subtypes of $V_{PRE}NV_2$

The D-PVC instances headed by *you* ‘there be’, *meiyou* ‘there be no’, *cunzai* ‘exist’, *zhu* ‘live’, etc., form the EXIST subtype of $V_{PRE}NV_2$, as exemplified by (19a). Those headed by *you* ‘have’, *meiyou* ‘have no’, etc., form the POSSESS subtype, as exemplified by (1a). Cross-linguistically, ‘possession’ and ‘existence’ are closely related, as has been discussed by many scholars (e.g. Blake 2001; Foley & Van Valin 1984; Lambrecht 1988);⁴ a possessor can be understood as the location to which the possessed is adhered. Verbs of posture, for instance *zuo* ‘sit’, *zhan* ‘stand’, *shui* ‘sleep’, *tang* ‘lie’, etc., can occur in the V_1 slot of $V_{PRE}NV_2$, as exemplified by (19b):

- (19) a. 又有兩部《星球大戰》遊戲胎死腹中。
 [http://www.yxdown.com/news/201410/147172.html; 12 October 2014]
You you liang bu ‘Xingqiu Dazhan’ you xi tai si fu zhong.
 again there be two CL NAME travel drama fetus die belly middle
 ‘There are another two *Star Wars* games (and they) are dead in the water.’
- b. 山崖下躺著兩個人沒有反應。 [http://roll.sohu.com/20110414/n305771178.shtml; 14 April 2011]
Shan ya xia tang zhe liang ge ren mei you fan ying.
 mountain cliff below lie DUR two CL person no have opposite response
 ‘Two persons lay under the mountain cliff (and both) were not responsive.’

Example (19b) exemplifies the POSTURE subtype.

⁴ Foley & Van Valin (1984:48) mentioned that in many languages, for example Russian, Tagalog, and Guugu Yimidhirr, there is no verb corresponding to the English *have*. In these languages, the alienable possession is usually expressed by locative construction. That is, the locative aspect of alienable possession ‘comes out in paraphrases of *have* such as *be in X’s possession*, as in *John has the book* = *The book is in John’s possession*.’ Moreover, Lambrecht (1988) pointed out that in English the subject argument of *have* has the semantic case role of *locative*. Blake (2001:81) mentioned that in a localist interpretation, the case of the subject of the verb of possession *have* is *locative*; in other words, the object is located in the possession of the subject. In Chinese, the verbs *you* and *meiyou* have both possessive and existence uses, which are closely related historically.

Some $V_{PRE}NV_2$ instances are headed by what has been called 定位動詞 *dingwei dongci* ‘verb of position’ in the literature (e.g. Gu 1997),⁵ as in *xie* ‘write’, *hua* ‘draw’, *xiu* ‘build’, *zhong* ‘plant’, *fang* ‘put’, *tie* ‘attach’, *gua* ‘hang’, *diao* ‘hang’, *chuan* ‘dress; wear’, *dai* ‘wear’, *pi* ‘drape over shoulder’. In these instances, the V_1N portion indicates a static state, that is, the existence of N as the consequence of the action/event V_1 . The item designated by the pivot N usually adheres to a specific

⁵ As mentioned in Gu (1997: 22), Ren (2000:31–32), and others, in modern Mandarin, some of the verbs of position, which are often used orally, have both dynamic and static meanings. Among these verbs are *chuan* ‘wear’, *gua* ‘hang’, *xie* ‘write’, and *hua* ‘draw’. For example, *xie* ‘write’ can denote not only the action ‘to cause something (e.g. letters, characters) to be adhered to somewhere (e.g. a paper, a blackboard)’ (dynamic sense), as in (iia), a subject-initiated sentence, but also the state of being that ‘something (e.g. letters, characters) is adhered to somewhere (e.g. a paper, a blackboard)’ (static sense), as in (iib), a location-initiated sentence.

- (ii) a. 我在黑板上寫了個漢字。

Wo zai hei ban shang xie le ge Han zi.
1st sg at black board up write PFV CL Chinese character.
‘I wrote a Chinese character on the blackboard.’

- b. 黑板上寫著個漢字。

Hei ban shang xie zhe ge Han zi.
black board up write DUR CL Chinese character
‘A Chinese character is (written) on the blackboard.’

(iia) emphasizes the dynamic process that *wo* ‘I’ caused a Chinese character to come into being, whereas (iib) emphasizes the static situation that the Chinese character remains on the blackboard. Both (iia) and (iib) can be transformed into D-PVC instances if a comment on or description of *hanzi* ‘Chinese character’ is added:

- (iii) a. 我在黑板上寫了個漢字筆畫很多。

Wo zai hei ban shang xie le ge Han zi bi hua hen duo.
1st sg at black board up write PFV CL Chinese character pen drawing very more
‘I wrote on the blackboard a Chinese character (and it) has many strokes.’

- b. 黑板上寫著個漢字筆畫很多。

Hei ban shang xie zhe ge Han zi bi hua hen duo.
black board up write DUR CL Chinese character pen drawing very more
‘On the blackboard there is a Chinese character (and it) has many strokes.’

(iia) and (iib) differ in two ways. First, the manners of introducing the pivot N (*hanzi* ‘Chinese character’) into discourse or conversation are not the same. Example (iib) is an excellent instance of the RESULT subtype of $V_{PRE}NV_2$, whereas (iia) exemplifies the $V_{PRO}NV_2$ (see §4.2.4), in which the subject brings N into existence. Second, (iia) and (iib) belong to the subject-initiated and location-initiated modes, respectively. The two distinctions can be generalized to all the D-PVC instances headed by the verbs of position.

We need to have two things clarified. First, the verbs that can head both $V_{PRO}NV_2$ and $V_{PRE}NV_2$ are restricted to verbs of position. Second, to categorize the D-PVC instances headed by these verbs with dynamic and static senses into $V_{PRO}NV_2$ and $V_{PRE}NV_2$, respectively, is compatible with the semantic approach of the classification and taxonomy of D-PVC instances.

point indicated by the location phrase at the beginning of the sentence; the specific point is where the action V_1 takes place. Based on the semantic features of the verbs of position, I further categorize the instances they head into three subtypes, namely RESULT, ATTACH, and WEAR. The instances of RESULT are headed by *xie* ‘write’, *hua* ‘draw’, *yin* ‘print’, *xiu* ‘build’, *zhong* ‘plant’, and so on, as in (20):

- (20) (宣傳單) 上面印著一款杯子特價只要 20 元。
 [http://www.gmw.cn/01wzb/2013-02/09/content_6824339.htm; 9 February 2013]
 (Xuan chuan dan) shang mian yin zhe yi kuan bei zi
 (declare pass sheet) up face print DUR one CL cup AFF
 te jia zhi yao 20 yuan.
 special price only want 20 dollar
 ‘A type of cup is printed on the flyer (and the cup) is on sale for only 20 dollars.’

The instances of ATTACH are headed by verbs such as *fang* ‘put’, *tie* ‘attach’, *gua* ‘hang’, and *diao* ‘hang’, etc., as in (21):

- (21) a. (看見) 一輛車上放著一個門像防盜門。
 [http://bbs.hlgnet.com/info/u18_2965153/; 30 August 2004]
 (Kan jian) yi liang che shang fang zhe yi ge men xiang
 (look see) one CL car up put DUR one CL door alike
 fang dao men.
 proof thief door
 ‘(Someone saw that) a door was put on a car, (and the door) looks like a burglar-proof door.’
- b. 對面掛了個八卦鏡對著我們的房子。[www.sinobuy.cn/ask/7461.html; 17 October 2011]
 Dui mian gua le ge ba gua jing
 opposite face hang PFV CL eight divinatory symbol mirror
 dui zhe women de fang zi.
 direct at DUR 1st pl GEN room AFF
 ‘An eight-diagram mirror is hung opposite (and it) faces our house squarely.’

The verbs occurring in the V_1 position of the WEAR subtype include *chuan* ‘dress; wear’, *dai* ‘wear’, *pi* ‘drape over shoulder’, etc., as in (22):

- (22) a. 頭上戴著這麼個玩藝不重麼？[http://bbs.tiexue.net/post_7135076_1.html; 3 March 2014]
 Tou shang dai zhe zheme ge wan yi bu zhong me?
 head up wear DUR such CL play art not heavy PART
 ‘(Someone) wore such a thing on head (and it) was heavy, wasn’t it?’

- b. 女模特腳上穿了一款背靠背的鞋子好漂亮。
 [http://zhidao.baidu.com/question/1237826985756415619.html; 27 September 2013]
Nü mote jiao shang chuan le yi kuan
 female model foot up wear PFV one CL
bei kao bei de xie zi hao piaoliang.
 back lean against back GEN shoe AFF good beautiful
 ‘The model wore a pair of Kappa shoes (and they) were very beautiful.’

RESULT differs from ATTACH and WEAR in that it has the ‘create’ sense, in other words V_1 brings N into existence.

All the aforementioned instances of RESULT, ATTACH, and WEAR are location-initiated. In my data, the instances of WEAR that are subject-initiated are also identified, as in (23):

- (23) 這幾天我穿了雙皮鞋不太適合腳。 [http://ask.9939.com/id/3479904; 23 April 2011]
Zhe ji tian wo chuan le shuang pi xie bu tai shi he jiao.
 this several day 1st sg wear PFV pair leather shoe not too suit fit foot
 ‘These days I have been wearing a pair of leather shoes (and they) do not fit well.’

Similar to the location-initiated instances, e.g. (20), (21), and (22), in (23) the static situation, that is *pixie* ‘leather shoes’, the pivot N, has been adhered to the body of *wo* ‘I’ nowadays. In this sense, similar to the POSSESS instances, in a subject-initiated instance of WEAR, for example (23), the subject may be understood as the location to which the pivot N is adhered.

4.2.2 The subtypes of $V_{ACQ}NV_2$

$V_{ACQ}NV_2$ has six subtypes, namely GAIN, PURCHASE, SELECT, STEAL, FIND, and CATCH. GAIN is headed by verbs such as *de* ‘gain’, *nong* ‘get’, *zhao* ‘find’, and *diu* ‘lose’ as exemplified by (1b). PURCHASE, with verbs such as *mai* ‘buy’, *jie* ‘borrow’, and *zu* ‘rent’ as V_1 , is exemplified by the sentence in (24):

- (24) 租了個房子有汙染，保證金能退嗎？(Loushi)
Zu le ge fang zi you wu ran, bao zheng jin neng tui ma?
 rent PFV CL house AFF have dirty dye protect proof money can return PART
 ‘(I) rented a house (but it) is contaminated. Can I ask for the cash deposit back?’

SELECT is headed by verbs meaning ‘select’, for example *tao* ‘search and select (from old stuff)’, *xuan* ‘select’, *xuanze* ‘select’, as in (25):

- (25) 鄰居淘了個廚房置物架不好用。 [http://ju.jyyuan.com/view-149659.html; 21 March 2012]
Lin ju tao le ge chu fang zhi wu jia bu hao yong.
 next live select PFV CL kitchen room put staff frame not good use
 ‘A neighbor selected a rack for the kitchen (but it) does not work well.’

Those headed by *tou* ‘steal’, *qiang* ‘rob’, *duo* ‘snitch’, etc., form the subtype STEAL:

- (26) 偷了個 iPhone 是山寨的。
 [http://www.joyme.com/home/mylionking/0Es2R7QeJfoH-dkcfag9O1; 4 March 2013]
Tou le ge iPhone shi shang zhai de.
 steal PFV CL iPhone be mountain village GEN
 ‘(Someone) stole an iPhone (but it) is a fake.’

Those headed by *jian(dao)* ‘pick up’, *zhao(dao)* ‘find’, *diu* ‘lose’, etc., form the subtype FIND:

- (27) 我今天撿了一隻貓貓最多 10 天大！
 [http://www.csapa.org/rootbbs/forum.php?mod=viewthread&tid=2698; 2 April 2012]
Wo jin tian jian le yi zhi mao mao zui duo 10 tian da!
 1st sg today day pick up PFV one CL cat cat extreme more ten day big
 ‘Today I found a cat (and it) is no more than ten days old!’

The D-PVC sentences headed by verbs meaning ‘catch’, including *zhua* ‘catch’, *dai* ‘arrest’, *diao* ‘fish’, *bu* ‘catch’, etc., exemplify the subtype CATCH:

- (28) 南京高淳捕到一怪魚長了 6 個鰭。
 [http://news.eastday.com/m/20091026/u1a4759670.html; 26 October 2009]
Nanjing Gaochun bu dao yi guai yu zhang le 6 ge qi.
 NAME NAME catch arrive one strange fish grow PFV six CL fin
 ‘In Gaochun, Nanjing, (someone) caught a strange fish (and it) has six fins.’

4.2.3 The subtypes of $V_{EME}NV_2$

$V_{EME}NV_2$ instances belong to the location-initiated mode and are typically headed by verbs (or compound verbs) such as *chuxian* ‘appear’, *maochu* ‘emerge’, *piaolai* ‘float over’, etc., as in (29a). They form the APPEAR subtype. Verbs of motion, including both directional verbs, for example *jinlai* ‘come in’, *lai* ‘come’, *xialai* ‘come down’, and compound verbs, for instance *pao guolai* ‘run over’, can also head $V_{EME}NV_2$, as in (1c). Instances headed by these verbs form the subtype MOVE. $V_{EME}NV_2$ can also be headed by the verbs meaning ‘grow’ or ‘appear’, for example *zhang* ‘grow’ and *sheng* ‘grow’, as in (29b), which exemplifies the GROW subtype.

- (29) a. 從半山腰亂草裡鑽出個人來向他招手。(Lüliang)
Cong ban shan yao luan cao li zuan chu ge ren
 from half hill waist chaotic grass inside drill out CL person
lai xiang ta zhao shou.
 come toward 3rd sg wave hand
 ‘From underbrush halfway up the hill there appeared a person (and the person) waved to him.’

- b. 手面長了個小包泛紅。[zhidao.baidu.com/question/101665787.html; 16 October 2010]

Shou mian zhang le ge xiao bao fan hong.
hand face grow PFV CL little swelling general red
'(Someone) has a little swelling on his hand (and the swelling) is red.'

The D-PVC sentences headed by *duo* 'have more in number', *shao* 'have less in number', *zengjia* 'increase', *jianshao* 'reduce', etc., form the SURPLUS subtype. For example:

- (30) 現在多了個人陪你，有什麼不好？(Lu Xiaofeng)
Xian zai duo le ge ren pei ni, you shenme bu hao?
now be more PFV CL person accompany 2nd sg have what no good
'Now there is one more person (and he) accompanies you. Why do you not think it is good?'

4.2.4 The subtypes of $V_{PRO}NV_2$

V_1 in $V_{PRO}NV_2$, which is subject-initiated, usually has the sense of 'production' or 'bring into existence'. All the instances of this primary type indicate a dynamic process in which the subject brings the pivot N into existence via the action V_1 . Some verbs of position, namely those that can occur in the RESULT subtype of $V_{PRE}NV_2$, such as *xie* 'write', *hua* 'draw', *ke* 'inscribe', *xiu* 'build', *gai* 'build', *zhong* 'plant', *zai* 'plant', etc., may also be used as V_1 in $V_{PRO}NV_2$. The sentences headed by *xie* 'write', *hua* 'draw', *xiu* 'build', etc., as in (31a), form the CREATE subtype, whereas those headed by *sheng* 'to bear', *zhong* 'plant', *zai* 'plant', etc., as in (17a) (repeated as (31b)), form the BEAR subtype. Some other verbs, namely *dun* 'stew', *chao* 'stir-fry', and *zheng* 'steam', can also occur in the $V_{PRO}NV_2$ instances, as in (31c). The instances headed by these verbs form the FRY subtype of $V_{PRO}NV_2$.

- (31) a. 杜甫曾寫過一首詩說到「雨水」這節氣。
[http://www.facebook.com/yhcaromarte/posts/345774705454045; 18 February 2012]
Du Fu ceng xie guo yi shou shi shuo dao 'yu shui' zhe jie qi.
NAME once write EXP one CL poem say arrive rain water this joint air
'Du Fu once wrote a poem that mentioned the Solar term called "rainwater".'
- b. 我在房前種了棵櫻桃樹活了。
[http://yezhu.qingdaonews.com/viewthread.php?tid=167086; 17 May 2009]
Wo zai fang qian zhong le ke ying tao shu huo le.
1st sg at room front plant PFV CL cherry peach tree live CRS
'I planted a cherry tree in front of the house (and it) is alive.'
- c. 炒了盤高麗菜很難吃。[www.plurk.com/p/eqv0u0; 18 November 2011]
Chao le pan Gaoli cai hen nan chi.
fry PFV CL NAME dish very difficult eat
'(Someone) fried a dish of cabbage (and it) tasted horrid.'

The DESIGN subtype is headed by *sheji* ‘design’, *bian* ‘fabricate’, *daoyan* ‘direct’, etc., as in (32a). REPRODUCE is headed by *paishe* ‘shoot (a film)’, *luzhi* ‘record’, *fuzhi* ‘copy’, *shangchuan* ‘upload’, *xiazai* ‘download’, etc., as in (32b). PUBLISH, headed by *fabiao* ‘publish (an article)’, *chuban* ‘publish (a book)’, *tuichu* ‘present to the public’, etc., share the meaning of issuing printed material(s) for public distribution or sale, as in (32c).

- (32) a. 我編了個程爲什麼運行不了？
 [http://bbs.csdn.net/topics/390478328?page=1#post-394672535; 2 June 2013]
Wo bian le ge cheng wei shenme yun xing bu liao?
 1st sg edit PFV CL procedure for what run go not can
 ‘I wrote a computer program—why can’t (it) run?’
- b. 拍了一組桃花基本都糊了。 [http://dcbbs.zol.com.cn/gallery-232-1336450-0.html; 11 April 2013]
Pai le yi zu tao hua ji ben dou hu le.
 shoot PFV one group peach blossom basic origin all fuzzy CRS
 ‘(I) shot a set pictures of peach blossoms (and they) were all unclear.’
- c. 我發了一篇文章被很多新浪博客轉摘。
 [http://bbs.admin5.com/thread-11367823-1-1.html; 7 May 2013]
Wo fa le yi pian wen zhang bei hen duo
 1st sg publish PFV one CL article chapter PAS very more
Xinlang bo ke zhuan zhai.
 NAME abundant guest turn cite
 ‘I published an article (and it) has been copied and cited by many blogs at Sina.com.’

4.2.5 The subtypes of $V_{REL}NV_2$

$V_{REL}NV_2$ is exemplified by (1e). The verbs heading this primary type share two semantic properties. First, they have to do with the two-sided agreement between either the subject and the pivot N, for example *jia* ‘marry (a man)’, or the subject and a third party, for instance *baoyang* ‘adopt’. Second, they result in a relationship. For example, *qu* ‘marry (a woman)’ establishes the husband–wife relationship, whereas *shoutu* ‘take apprentice’ establishes the master–apprentice relationship. Sentences involving the two relationships form the MARRY (e.g. (1e)) and ACKNOWLEDGE (e.g. (33)) subtypes, respectively.

- (33) 郭德綱收個徒弟才半歲。
 [http://news.xinhuanet.com/photo/2006-10/30/content52682991.htm; 30 October 2006]
Guo Degang shou ge tu di cai ban sui.
 NAME accept CL apprentice younger brother just half year
 ‘Guo Degang took an apprentice (and s/he) was only half a year old.’

Verbs such as *shouyang* ‘adopt’, *renyang* ‘adopt’, *ren* (*gan ba/ma/er/nü*) ‘acknowledge foster father/mother or godson/goddaughter’, etc., can also be used as V_1 of $V_{REL}NV_2$. Instances headed by these verbs form the ADOPT subtype, as exemplified by (34):

- (34) 郭德綱認了個乾女兒是咱們蚌埠的。[<http://bbs.365jia.cn/thread-1295957-1-1.html>; 17 February 2013]
Guo Degang ren le ge gan nü er shi zanmen Bengbu de.
 NAME recognize PFV CL dry daughter son be 1st pl NAME GEN
 ‘Guo Degang took a goddaughter (and she) is a native of Bengbu.’

The D-PVC sentences headed by *jiao* (*pengyou*) ‘make (friend)’, *chu* (*duixiang*) ‘date a potential partner in marriage’, etc., as in (35), form the COMMUNICATE subtype:

- (35) 某男交了一個女友特別的愛錢。[<http://www.tduanzi.com/tweets/21178.html>; 8 April 2012]
Mou nan jiao le yi ge nü you ti bie
 certain male connect PFV one CL female friend special difference
de ai qian.
 ADV love money
 ‘A man finds a girlfriend (and she) is fond of money.’

4.2.6 The subtypes of $V_{EXP}NV_2$

In $V_{EXP}NV_2$, the subject apprehends the pivot N through the senses or by participating in the event/activity denoted by V_1 . The first subtype is PERCEIVE, headed by the perception verbs, for instance *ting* ‘hear’, *jian* ‘see’, *wen* ‘smell’, etc., as in (1f). Following is another example:

- (36) 我鼻子爲什麼老能聞到一股怪味衝衝的？[<http://ask.99.com.cn/wenti/553653.htm>; 28 November 2012]
Wo bi zi wei shenme lao neng wen dao yi gu guai wei
 1st sg nose AFF for what always can smell reach one CL strange taste
chong chong de?
 irritating irritating PART
 ‘Why does my nose always sense a smell (and the smell) is irritating?’

The V_1 in $V_{EXP}NV_2$ can also be verbs such as *mo* ‘touch’, *peng* ‘touch’, *chu* ‘touch’, etc., as in (37a), and consumption verbs, which mean ‘taking into the body by the mouth for digestion or absorption’, for example *chi* ‘eat’, *he* ‘drink’, *chang* ‘taste’, as in (37b):

- (37) a. 肋骨下能摸到一個東西像淋巴結。[<http://zhidao.baidu.com/question/507604667.html?seed=0>; 15 December 2012]
Le gu xia neng mo dao yi ge dong xi xiang linba jie.
 rib bone under can touch reach one CL east west similar lymph node
 ‘(I) can touch a thing from below the ribs (and the thing) is like a lymph node.’

- b. 我患有鼻炎，以前有吃過一種西藥很有效。
 [http://wenwen.soso.com/z/q354434150.htm?ch=wtk.title; 15 February 2012]
 Wo huan you bi yan,
 1st sg suffer have nose inflame
 yi qian you chi guo yi zhong xi yao hen you xiao.
 GEN before have eat EXP one CL west medicine very have effect
 ‘I have been suffering from nasal inflammation. I took a type of Western medicine before (and it) was very effective.’

Examples (37a) and (37b) exemplify the subtypes TOUCH and CONSUME, respectively.

The sentences headed by verbs with the sense of ‘active participating in or living through some kind of event/activity’, such as *shi* ‘try’, *yong* ‘use’, and *wan* (*youxi*) ‘play (game)’, form the USE subtype, as in (38a). $V_{EXP}NV_2$ can also be headed by verbs such as *xiuli* ‘repair’, *zhiliao* ‘treat’, *shouzhi* ‘admit and treat’, etc., as in (38b). This subtype is called REPAIR. The APPLY subtype, headed by *banli* ‘handle’, *shenqing* ‘apply’, *kai(yao)* ‘prescribe’, etc., can be seen in (38c).

- (38) a. 以前用過一臺電具是金瑯。
 [http://home.soufun.com/bbs/pinpai/jc3112~1~3879/55279738_55279738.htm; 9 April 2010]
 Yi qian yong guo yi tai zao ju shi Jinlang.
 before use EXP one CL kitchen utensil be NAME
 ‘(I) once used a kitchen utensil (and its) brand name was Jinlang.’
- b. 帕金森病年輕化，淮安曾收治一患者僅 42 歲。
 [http://js.people.com.cn/html/2013/04/11/219957.html; 11 April 2013]
 Pajinsen bing nian qing hua,
 NAME ill year light change
 Huaian ceng shou zhi yi huan zhe jin 42 sui.
 NAME once receive treat one suffer NOM only forty-two year
 ‘Parkinsonians have become younger. Hua’an once treated a patient (and s/he) was just 42 years old.’
- c. 在白石洲辦過一張終止功能居住證過期了。
 [http://zhidao.baidu.com/question/535552772.html; 12 March 2010]
 Zai Baishizhou ban guo yi zhang zhong zhi gongneng ju zhu
 at NAME handle EXP one CL final stop function live live
 zheng guo qi le.
 proof pass date CRS
 ‘(I) applied for a non-permanent residence permit (and it) has expired.’

The last subtype of $V_{EXP}NV_2$ is DESTROY, headed by *da(po)* ‘break’, *shuai(sui)* ‘break’, *sisui* ‘tear into pieces’, *chai* ‘dismantle’, etc., as in (6a), repeated as (39):

- (39) 我打破了一個茶杯很值錢。(Li & Thompson 1981:612)

Wo da po le yi ge cha bei hen zhi qian.
 1st sg beat broken PFV one CL tea cup very worth money
 'I broke a tea cup (and it) was worth a lot of money.'

4.2.7 The subtypes of $V_{MAN}NV_2$

My data contain examples of D-PVC with manipulation verbs in the V_1 slot. These sentences belong to $V_{MAN}NV_2$, which has three subtypes, namely RECOMMEND, DISPATCH, and RECRUIT. RECOMMEND is headed by verbs such as *tuijian* 'recommend', *tiba* 'promote', *yaoqing* 'invite', etc., as in (40a). DISPATCH is headed by verbs such as *pai* 'dispatch', *paqian* 'dispatch', etc., as in (40b).

- (40) a. 去眼袋方法按摩有效嗎？我朋友推薦了一個還不錯。

[<http://www.tianya.cn/techforum/content/358/1/108753.shtml>; 12 March 2012]

Qu yan dai fang fa an mo you xiao ma? Wo peng
 remove eye bag way method press massage have effect PART 1st sg friend
you tui jian le yi ge hai bu cuo.

friend push recommend PFV one CL still not wrong

'Is massage good to under-eye puffiness? My friend recommended one (method) (and it) was not bad.'

- b. 朝廷派了個大將叫李成梁。(Lantai)

Chao ting pai le ge da jiang jiao Li Chengliang.
 imperial court dispatch PFV CL big general call NAME

'The imperial court dispatched a senior general (and he) is named Li Chengliang.'

The V_1 s in RECRUIT usually mean 'recruit' or 'hire', for example *qing* 'recruit', *gu* 'hire', *pin* 'recruit', *zhao* 'recruit', and *yingpin* 'accept an offer of', as in (41):

- (41) 家裡請了個新保姆真能幹。[<http://tieba.baidu.com/p/1469209054>; 22 March 2012]

Jia li qing le ge xin baomu zhen neng gan.
 family inside invite PFV CL new nanny real can do

'I hired a new nanny (and she) is really capable.'

4.2.8 The subtypes of $V_{PER}NV_2$

$V_{PER}NV_2$ has three subtypes: SING, headed by *chang* 'sing', *yanzou* 'play a musical instrument', etc., as in (1h); BROADCAST, headed by *fang* 'broadcast; play', *guangbo* 'broadcast', *bosong* 'broadcast', *bofang* 'broadcast; transmit', etc., as in (42a); and UTTER, headed by *nian* 'read', *du* 'read', *langsang* 'recite', etc., as in (42b):

- (42) a. 店裡面放著一首歌很傷感。[http://wenwen.soso.com/z/q370533861.htm; 24 April 2012]
Dian li mian fang zhe yi shou ge hen shang gan.
 store inside play DUR one CL song very injure emotion
 ‘In the store (someone) is playing a song (and it) is very sentimental.’
- b. 黃藥師念了首詩名字叫水龍吟。[http://dnf.uuu9.com/zhuanfang/dwsly; 2 July 2009]
Huang Yao shi nian le shou shi
 NAME medicine teacher read PFV CL poem
ming zi jiao shui long yin.
 name character call water dragon sing
 ‘Pharmacist Huang recited a poem (and it) is called Shuilongyin.’

In all the three subtypes, V_1 is typically conducted on the basis of a pre-prepared script or text and necessarily results in sound effects.

4.2.9 The subtypes of $V_{\text{COG}}\text{NV}_2$

$V_{\text{COG}}\text{NV}_2$ has two subtypes. TEACH is headed by verbs meaning ‘to cause to know’ or ‘to cause to acquire a skill,’ for example *jiao* ‘teach’, *xunlian* ‘train’, *peixun* ‘train’, *fudao* ‘coach’, etc., as in (1i). LEARN is headed by verbs meaning ‘to gain knowledge’, such as *xue* ‘learn’, *xiu(ke)* ‘take a course’, *xuan(ke)* ‘select a course’, *wen* ‘ask’, as in (43).

- (43) (睡眠襪)問了幾家都說沒有。[http://blog.onlylady.com/blog-12252250-10448161.html; 24 February 2013]
(Shui mian wa) wen le ji jia dou shuo mei you.
 sleep sleep sock ask PFV several family all say no have
 ‘(About the sleeping socks) (I) asked several stores (and they) all said that they do not have them.’

4.3 Summary

The primary types and subtypes of the D-PVC in modern Mandarin are summarized in Table 5. Overall, the organization of the taxonomy is very stable. Since the classification has been done on the basis of the semantic properties, it is not impossible for some D-PVC instances to be categorized in an alternative way. For example, as mentioned in §4.2.1 and §4.2.4, some verbs of position can head both $V_{\text{PRE}}\text{NV}_2$ and $V_{\text{PRO}}\text{NV}_2$. A similar situation can be found in other verbs; for instance, in the current taxonomy, the sentences headed by verbs such as *jiao* ‘to teach’ and *xunlian* ‘to train’ are treated as the TEACH subtype under the $V_{\text{COG}}\text{NV}_2$ primary type. Given the nature of the events/activities denoted by these verbs, it is not unreasonable to treat the sentences as a subtype of another primary type, for example $V_{\text{COG}}\text{NV}_2$. This is because, in a sense, to teach or to train may also mean to participate in the activity/event the student or trainee is involved in. The reclassification of these instances may cause the taxonomy to be partially reorganized. Because the D-PVC sentences that can be reclassified are statistically insignificant, the partial adjustment does not have a serious impact on the hierarchical structure of the taxonomy.

Table 5: The primary types and subtypes of D-PVC in modern Mandarin

TYPE	SUBTYPE	REPRESENTATIVE V ₁					
V _{PRE} NV ₂	EXIT	有	<i>you</i>	‘there be’	沒有	<i>meiyou</i>	‘there be not’
	POSSESS	有	<i>you</i>	‘have’	沒有	<i>meiyou</i>	‘do not have’
	ATTACH	拿	<i>na</i>	‘hold’	背	<i>bei</i>	‘carry on back’
	POSTURE	站	<i>zhan</i>	‘stand’	躺	<i>tang</i>	‘lie’
	WEAR	穿	<i>chuan</i>	‘wear’	戴	<i>dai</i>	‘put on’
	RESULT	寫	<i>xie</i>	‘write’	建	<i>jian</i>	‘build’
V _{ACQ} NV ₂	GAIN	得到	<i>dedao</i>	‘gain’	丟	<i>diu</i>	‘lose’
	CATCH	捕	<i>bu</i>	‘catch’	釣	<i>diao</i>	‘fish; angle’
	PURCHASE	買	<i>mai</i>	‘purchase’	租	<i>zu</i>	‘rent’
	SELECT	淘	<i>tao</i>	‘search and select’	選	<i>xuan</i>	‘select’
	STEAL	偷	<i>tou</i>	‘steal’	搶	<i>qiang</i>	‘rob’
	FIND	找到	<i>zhaodao</i>	‘find’	撿	<i>jian</i>	‘find’
V _{EME} NV ₂	MOVE	來	<i>lai</i>	‘come’	下來	<i>xialai</i>	‘come down’
	GROW	長	<i>zhang</i>	‘grow’	生	<i>sheng</i>	‘grow’
	SURPLUS	多	<i>duo</i>	‘have more in number’	少	<i>shao</i>	‘have less in number’
	APPEAR	出現	<i>chuxian</i>	‘appear’	送來	<i>songlai</i>	‘send over’
V _{PRO} NV ₂	BEAR	種	<i>zhong</i>	‘plant’	生	<i>sheng</i>	‘bear’
	CREATE	寫	<i>xie</i>	‘write’	畫	<i>hua</i>	‘draw’
	FRY	炖	<i>dun</i>	‘stew’	炒(菜)	<i>chao (cai)</i>	‘stir-fry’
	DESTROY	打(破)	<i>da (po)</i>	‘break’	摔(碎)	<i>shuai (sui)</i>	‘break’
	DESIGN	設計	<i>sheji</i>	‘design’	編	<i>bian</i>	‘fabricate’
	REPRODUCE	拍(攝)	<i>pai (she)</i>	‘shoot (a film)’	錄製	<i>luzhi</i>	‘record’
	PUBLISH	發(表)	<i>fa (biao)</i>	‘publish (an article)’	出(版)	<i>chu (ban)</i>	‘publish (a book)’
V _{REL} NV ₂	MARRY	嫁	<i>jia</i>	‘marry (a man)’	娶	<i>qu</i>	‘marry (a woman)’
	ACKNOWLEDGE	認	<i>ren</i>	‘take (e.g. a godson)’	收(徒弟)	<i>shou (tudi)</i>	‘take apprentice’
	ADOPT	認養	<i>renyang</i>	‘adopt’	收養	<i>shouyang</i>	‘adopt’
	COMMUNICATE	交(友)	<i>jiao (you)</i>	‘make friends’	處(對象)	<i>chu (duixiang)</i>	‘date’
V _{EXP} NV ₂	PERCEIVE	聽	<i>ting</i>	‘hear’	聞	<i>wen</i>	‘smell’
	USE	用	<i>yong</i>	‘use’	試	<i>shi</i>	‘try’
	TOUCH	觸(到)	<i>chu (dao)</i>	‘touch’	摸(到)	<i>mo (dao)</i>	‘touch’
	CONSUME	吃	<i>chi</i>	‘eat’	喝	<i>he</i>	‘drink’
	DESTROY	打(破)	<i>da (po)</i>	‘break’	摔(碎)	<i>shuai (sui)</i>	‘smash into pieces’
	APPLY	辦(理)	<i>ban (li)</i>	‘handle’	申請	<i>shenqing</i>	‘apply’
	REPAIR	修(理)	<i>xiu (li)</i>	‘repair’	收治	<i>shouzhi</i>	‘admit and treat (a patient)’
V _{MAM} NV ₂	RECRUIT	請	<i>qing</i>	‘recruit’	雇	<i>gu</i>	‘hire’
	RECOMMEND	推薦	<i>tuijian</i>	‘recommend’	提拔	<i>tiba</i>	‘promote’
	DISPATCH	派	<i>pai</i>	‘dispatch’	派遣	<i>paqian</i>	‘dispatch’
V _{PER} NV ₂	SING	演奏	<i>yanzou</i>	‘play musical instrument’	唱	<i>chang</i>	‘sing’
	BROADCAST	放	<i>fang</i>	‘broadcast’	播(放)	<i>bo (fang)</i>	‘broadcast’
	UTTER	讀	<i>du</i>	‘read’	念	<i>nian</i>	‘read’
V _{COG} NV ₂	LEARN	學	<i>xue</i>	‘learn’	問	<i>wen</i>	‘ask’
	TEACH	教	<i>jiao</i>	‘teach’	訓練	<i>xunlian</i>	‘train’

5. A prototype account of the D-PVC taxonomy

The D-PVC taxonomy, as established in the preceding section, does not clarify the relationships among instances of the different primary types. I therefore turn to the prototype approach to determine whether the D-PVC instances, beyond the same general idiomatic interpretation, simply emerge discretely or are related to one another in a continuous manner. I show that instances of this construction are prototypically structured and that the $V_{PRE}NV_2$ instances are the central members. Instances of the remaining primary types deviate from $V_{PRE}NV_2$ instances gradiently and in different ways with respect to the semantic attributes shared by these central members.⁶

5.1 Syntactic constructions as prototype categories

Syntactic constructions are prototype categories; the instances of a construction differ with respect to the centrality of their membership (see e.g. Taylor 1995, 1998). Both the form and meaning properties of a construction, defined in the sense of construction grammar (Taylor 1998:186–191), are prototypically structured:

Consistent with the prototype approach, both meaning and form need to be stated, in the first instance, in terms of central cases. Both may display prototype effects. A construction may be used to express meanings which differ to a greater or lesser extent from the central specification. Similarly, the items which fill the construction slots may diverge from the formal specification of the prototype. Obviously, the characterization of a construction needs to specify, not only the prototype, but also the manner and the extent of permitted deviation from the prototype. (Taylor 1995:200)

Taylor (1995) examined the prototypical nature of two highly productive constructions in English, namely possessive genitive and transitive constructions. The instances in (44) are four of the possessive genitive examples cited in the study.

- (44) a. *John's car*
 b. *the dog's bone*
 c. *the secretary's typewriter*
 (in the sense that the typewriter that has been assigned to the secretary for regular use)
 d. *the car's road-holding ability*

⁶ Alternatively, we may address the question semantically as how D-PVC instances are connected in terms of the relational links discussed in usage-based construction grammars. For example, Goldberg (1995) proposed four types of relational links, namely polysemy, metaphorical extension, subpart, and instance links. My observation is that both the relationships among the primary types and the ones among the subtypes within a primary type are characterized by polysemy links, and are intertwined with metaphorical extension links. The two types of links may not be kept apart. I adopt the prototype mode because it allows us to see how D-PVC instances are related to one another in a more straightforward manner.

The following conditions are among the properties of the prototypical possessive genitive construction, which is exemplified by (44a) (for full conditions, see Taylor 1995:202):

- (a) the possessor is a specific human being—non-human animates, and even less, inanimates, cannot possess things;
- (b) the possessed is a specific concrete thing (usually inanimate) or collection of specific concrete things, not an abstract;
- (c) the possessor has the right to make use of the possessed; other people can make use of the possessed only with the permission of the possessor.

Examples (45a–d) instantiate the transitive construction, with (45a) as the prototypical case:

- (45) a. *The child kicked the ball*
- b. *The lightning destroyed the building*
- c. *We approached the city*
- d. *John obeyed Mary*

Prototypical instances of the transitive construction share some properties, among which are the following three (for full conditions, see Taylor 1995:206–207):

- (a) The agent acts consciously and volitionally, and thus controls the event. Since consciousness and volition are typically human attributes, it follows that the agent is typically a human being.
- (b) The event is initiated by the referent of the subject NP, that is, by the agent. Responsibility for the event thus lies exclusively with the agent. Furthermore, the subject NP is the sentence topic; the subject is what the sentence is about.
- (c) After the occurrence of the event, the patient is in a different state from before the event. Usually, the difference is one which would be highly perceptible to an onlooking observer.

The three instances, (45b), (45c), and (45d), each deviate from the central specification of transitive construction for a unique reason. The subject NP in (45b) refers to an inanimate force instead of a consciously acting agent. In (45c), the patient does not undergo any change as a consequence of the agent's action. In (45d), it is the patient *Mary* instead of the agent *John* who controls the event, although the event is carried out by the latter.

5.2 Prototype effects of the D-PVC primary type

The approach suggested in Taylor (1995, 1998) is suitable for the purpose of the present discussion. Prototype effects apply to both the primary types of the D-PVC and their subtypes. For example, among the six subtypes of $V_{PRE}NV_2$, namely EXIST, POSSESS, ATTACH, WEAR, POSTURE, and RESULT, EXIST has the central status. $V_{ACQ}NV_2$ also has six subtypes, namely

GAIN, PURCHASE, SELECT, STEAL, FIND, and CATCH. The instances of GAIN, characterized by the most general sense of ‘acquire’, are the central members. In both $V_{PRE}NV_2$ and $V_{ACQ}NV_2$, the instances of the non-prototypical subtypes differ from one another with respect to the distance from the central specification. Due to space limitations, my discussion will be focused on how the primary types are prototypically structured.

5.2.1 $V_{PRE}NV_2$ as the prototype

Instances of $V_{PRE}NV_2$ (specifically, those of the EXIST and POSSESS subtypes⁷) are the central members of the D-PVC. Their central status is based on four factors. First, the function of the D-PVC is to introduce a new referent into conversation and add some information about it. A new referent in discourse or conversation can be described or commented on only if it has (physical, mental, etc.) ‘accessibility’ (or ‘availability’), that is, an acknowledgment of its existence by the speaker. In the D-PVC, the new referent, namely the pivot N, is introduced into discourse or conversation by the speaker via V_1 , which also encodes the manner in which the new referent is accessed. $V_{PRE}NV_2$ is the only primary type in which V_1 indicates the physical existence of the new referent in a specific location. Accordingly, the pivot N has the most intuitive accessibility. In the remaining primary types, the accessibility of the pivot N can only be indicated indirectly. For instance, in $V_{EME}NV_2$ (headed by *lai* ‘come’, *chuxian* ‘appear’, etc.) and $V_{PRO}NV_2$ (headed by *zhong* ‘plant’, *sheji* ‘design’, etc.), the pivot N gains physical accessibility after being brought into existence by the action V_1 . In $V_{PER}NV_2$, the successful conducting of V_1 would imply both the existence and accessibility of the pivot N. For example, in the instances headed by *nian* ‘read’ and *chang* ‘sing’, the pivot N usually refers to a context prepared in advance and a song that has already been composed, respectively. In $V_{REL}NV_2$, the sentence subject establishes a relationship with the pivot N by conducting V_1 (e.g. *qu* ‘marry a wife’ and *shouyang* ‘adopt’). In $V_{MAN}NV_2$, the existence and accessibility of the pivot N are also entailed when the subject’s manipulation of the pivot N by V_1 (e.g. *qing* ‘recruit’ and *pai* ‘dispatch’ in $V_{MAN}NV_2$) is successfully performed.

Second, the central status of the $V_{PRE}NV_2$ is also supported by the historical evidence. My survey shows that the earliest attested examples of the D-PVC belong to the EXIST subtype of $V_{PRE}NV_2$, as exemplified by (46a), dated before the 5th century BC. Cases of POSSESS headed by the possessive *you* ‘have’ are identified in the data around the 2nd century BC, as in (46b).

- (46) a. 有不速之客三人來。(Yi) (Zhang 2004:302)
 You bu su zhi ke san ren lai.
 have not speed GEN guest three person come
 ‘There were three unexpected persons (and they) came.’

⁷ For the purpose of the present discussion, I assume that all instances within a primary type share the same status in terms of prototypicality. Strictly speaking, only the EXIST and POSSESS subtypes of $V_{PRE}NV_2$ have the central-membership status. However, for the sake of simplicity, I shall ignore the differences between the two subtypes and the remaining subtypes of $V_{PRE}NV_2$.

- b. 姊（姁）曰：有弟無行。（*Kulie*)
Zi (ju) yue: you di wu xing.
 NAME aid possess younger brother no moral integrity
 ‘Ziju said: (I) have a younger brother (and he) has no moral integrity.’

$V_{EME}NV_2$ and $V_{PRO}NV_2$ began to appear during the 8th–12th century AD, as in (47):

- (47) a. 從上來一人行棒一人行喝。（*Gu Zunsu*)
Cong shang lai yi ren xing bang yi ren xing he.
 from up come one person conduct stick one person conduct shout
 ‘From the top there came a person (and he) waved a stick and another person (and he) shouted loudly.’
- b. 生兒爲盜，將安用之。（*Taiping*)
Sheng er wei dao, jiang an yong zhi.
 bear son conduct steal will how use 3rd sg
 ‘(If someone) gave birth to a son (and he) steals, how can he be given a post?’

$V_{EXP}NV_2$ and $V_{REL}NV_2$ did not appear until after the 15th century AD, as exemplified by (48a) and (48b), respectively:

- (48) a. 王明看見個樵夫磕頭禮拜。（*Sanbao*)
Wang Ming kan jian ge qiao fu ke tou li bai.
 NAME look see CL firewood man kowtow head rite beg humbly
 ‘Wang Ming saw a woodcutter (and the person) was kowtowing and making an obeisance.’
- b. 新娶個媳婦兒是老人家女兒。（*Jin Ping Mei*)
Xin qu ge xifur shi xiao ren jia nüer.
 new marry CL wife be small person family daughter
 ‘(Someone) recently married a wife (and she) is my daughter.’

Example (48a), dated around the 16th century AD, belongs to the PERCEIVE subtype of $V_{EXP}NV_2$. In this sentence, the number *yi* ‘one’ preceding the classifier *ge* is dropped, making it impossible for the *ge qiaofu ketou libai* portion to be the object of *kanjian* ‘see’. Clearly, this sentence can be read only as an instance of the D-PVC. Example (48b), dated around the 17th–18th century AD and headed by *qu* ‘marry a wife’, belongs to the MARRY subtype of $V_{REL}NV_2$. The boom in D-PVC growth did not take place until after the 19th century AD, when the remaining primary types and subtypes of the D-PVC appeared and increasingly more verbs were allowed to occur in the V_1 slot of the D-PVC. In this sense, $V_{PRE}NV_2$ represents the central members of the D-PVC and, presumably, forms the basis of this construction, which throughout history has consistently sanctioned new instances deviating from it semantically.

Third, frequency provides an important basis for categorization (see e.g. Bybee 2010; Nosofsky 1988).⁸ The more frequently the members occur, the more easily they are used as the basis of categorization of new entities (Bybee 2010:79–80). The $V_{PRE}NV_2$ instances, particularly those of EXIST and POSSESS headed by *you*, are the most common in modern Mandarin. This may have to do with the fact that the new referents introduced by the verbs indicating physical existence have the most direct accessibility in terms of the speaker's acknowledgment. To see if the EXIST and POSSESS instances are statistically dominant, I investigated the occurrences of the D-PVC instances headed by both *you* 'there be' and *you* 'have' in online sources through Google. In view of the huge number of D-PVC instances headed by *you*, only those in which the pivot N is preceded by a classifier phrase were searched. In addition, I further restricted my survey to the EXIST and POSSESS instances in which (i) the classifier is one of the 10, namely *wei*, *ge*, *jian*, *zhong*, *ben*, *tiao*, *tai*, *zhang*, *bu*, and *zhi*, and (ii) the numeral is one of the four, namely *yi* 'one' (including the cases in which 'one' is dropped), *er* 'two', *san* 'three', and *ji* 'several'.⁹ The results are listed in Table 6. As shown, the total number of D-PVC instances headed by *you* is 2385 (the numbers of the EXIST and POSSESS instances are 2084 and 301, respectively). As I have shown in §3.2, the total number of occurrences of D-PVC instances headed by the 130 verbs in online sources is 880. Therefore, the numerical superiority of instances of the EXIST and POSSESS subtypes of $V_{PRE}NV_2$ to any other primary types is obvious.

Table 6: The occurrences of the EXIST and POSSESS instances in online sources

Classifier preceding Pivot N	位 <i>wei</i>	件 <i>jian</i>	台 <i>tai</i>	部 <i>bu</i>	只 <i>zhi</i>	張 <i>zhang</i>	本 <i>ben</i>	個 <i>ge</i>	種 <i>zhong</i>	條 <i>tiao</i>	Total number
Instances of EXIST	516	354	218	206	225	162	140	87	90	86	2084
Instances of POSSESS	46	49	80	51	11	33	14	11	2	4	301
Instances of both subtypes	562	403	298	257	236	195	154	98	92	90	2385

Fourth, the constructions similar to $V_{PRE}NV_2$, particularly EXIST and POSSESS, have been reported in some other languages: as mentioned in §2.2, in American English for example, the presentational amalgam construction (or pseudo-relative construction) in which the first clause is either a *there*-construction indicating existence, or contains the predicate *have* (or *got*) indicating

⁸ Some other scholars argue against the view that frequency is among the determinants of membership centrality. For example, based on the empirical research, Rosch (e.g. 1973, 1975) ruled out the possibility that frequency is the determinant of prototypicality, arguing that the high frequency of occurrence of members with prototypical status is a symptom, but not the cause, of prototypicality.

⁹ Yin and He (1991) and Li (2013) collect 789 and 1080 classifiers, respectively. My study shows that more than 70 of these classifiers can occur in the classifier phrase in a D-PVC instance headed by *you*. Theoretically the numerals that can combine with these classifiers are not limited. The big number of the qualified classifiers, together with the unlimited number of numerals that can combine with them in the D-PVC, makes the exhaustive search of the potential D-PVC instances in online sources and the manual filtration of these instances an extremely difficult task.

possession. Similar constructions, if identified cross-linguistically, may be related to the inherent properties of human cognition.

The above reasons may constitute powerful arguments for the central status of $V_{PRE}NV_2$.

5.2.2 The original restrictive conditions of the D-PVC

A prototype serves as the reference point for the categorization of non-prototypical instances (Taylor 1995:42). The properties listed in Table 7, which are shared by $V_{PRE}NV_2$ instances, characterize the central semantic specification of the D-PVC. They are the *original restrictive conditions* of this construction. The 15 restrictive conditions cover not just the properties of the individual elements, namely V_1 , the pivot N, and V_2 , but also the interaction among them. The co-occurrence of these conditions constitutes instances of the prototypical D-PVC. Conditions E, G, and H require some explanation. In §4.2.1, I have shown that four subtypes of $V_{PRE}NV_2$, EXIST, POSTURE, RESULT, and ATTACH, belong to the location-initiated mode, and that the POSSESS subtype belongs to the subject-initiated mode. I have also shown that the WEAR instances are split between the subject-initiated and location-initiated modes. I further pointed out that in both POSSESS and those subject-initiated instances of WEAR, the subject indicates the location to which the pivot N is adhered. This leads to condition E, that is, ‘The instance belongs to either location-initiated mode or subject-initiated mode in which the subject indicates location’. Usually, in $V_{PRE}NV_2$, N is not limited to concrete things. However, in my data, cases in which N is not a concrete thing, for example *ge* ‘song’ in (42a) and *shi* ‘poem’ in (42b), are also identified. This leads to condition H, that is, ‘The pivot N is indefinite and denotes a new referent accessible via V_1 and perceptible by senses’. Both these concrete and non-concrete things are perceptible or understandable by sense, leading to condition G: ‘The pivot N is indefinite and denotes a new referent accessible via V_1 and perceptible by senses.’

Table 7: The original restrictive conditions of the D-PVC

A.	V_1 introduces the pivot N into discourse; V_2 describes or comments on the pivot N.
B.	V_1 and V_2 are not semantically related.
C.	V_1 means ‘exist’ or the manner in which the pivot N exists.
D.	V_1 is restricted to a static state.
E.	The instance belongs to either location-initiated mode or subject-initiated mode in which the subject indicates location.
F.	The pivot N is located at a fixed location at the speech time or reference time.
G.	The pivot N is indefinite and denotes a new referent accessible via V_1 and perceptible by senses.
H.	The pivot N is open to both concrete and non-concrete things.
I.	The pivot N is open to both animate and inanimate things.
J.	The pivot N may be the sole participant in V_1 .
K.	The pivot N’s presence (or, if applicable, the establishment of social relation/status) is not caused by V_1 .
L.	The pivot N is not physically affected (touched, changed, etc.) after the performance of V_1 .
M.	The pivot N is not affected after the performance of V_1 regarding social relation/status (e.g. ownership).
N.	V_2 is open to both action/event and state of being.
O.	The occurrence or appearance of V_2 is temporally no later than V_1 .

The remaining eight primary types are assigned D-PVC membership by virtue of their similarity to the prototype with respect to the 15 conditions.

5.2.3 The deviations of the non-prototypical instances from the prototype

Below I show how the non-prototypical instances, as exemplified by the sentences in (49) (all of which appeared in preceding sections; the primary types and original ordinals listed in the right side), deviate from the conditions in Table 7.

- (49) a. 偷了個 iPhone 是山寨的。(V_{ACO}NV₂) (26)
Tou le ge iPhone shi shang zhai de.
 steal PFV CL iPhone be mountain village GEN
 ‘(Someone) stole an iPhone (but it) is a fake.’
- b. 手面長了個小包泛紅。(V_{EME}NV₂) (29b)
Shou mian zhang le ge xiao bao fan hong.
 hand face grow PFV CL little swelling general red
 ‘(Someone) has a little swelling on his palm (and the swelling) is red.’
- c. 我在房前種了棵櫻桃樹活了。(V_{PRO}NV₂) (31b)
Wo zai fang qian zhong le ke ying tao shu huo le.
 1st sg at room front plant PFV CL cherry peach tree live CRS
 ‘I planted a cherry tree in front of the house (and it) is alive.’
- d. 某男交了一個女友特別的愛錢。(V_{REL}NV₂) (35)
Mou nan jiao le yi ge nü you te bie de ai qian.
 certain male connect PFV one CL female friend special difference
 ADV love money
 ‘A man finds a girlfriend (and she) is fond of money.’
- e. 我打破了一個茶杯很值錢。(V_{EXP}NV₂) (6a)
Wo da po le yi ge cha bei hen zhi qian.
 1st sg beat broken PFV one CL tea cup very worth money
 ‘I broke a tea cup (and it) was worth a lot of money.’
- f. 家裡請了個新保姆真能幹。(V_{MAN}NV₂) (41)
Jia li qing le ge xin baomu zhen neng gan.
 family inside invite PFV CL new nanny real can do
 ‘I hired a new nanny (and she) is really capable.’
- g. 姑娘唱了一首歌也是附加動作的。(V_{PER}NV₂) (1i)
Guniang chang le yi shou ge ye shi fu jia dong zuo de.
 girl sing PFV one CL song also be attach add move act PART
 ‘The girl sang a song (and it) also had the pre-designed actions.’

- h. (睡眠襪) 問了幾家都說沒有。(V_{COG}NV₂) (43)
 (Shui mian wa) wen le ji jia dou shuo mei you.
 sleep sleep sock ask PFV several family all say no have
 ‘(About the sleeping socks) (I) asked several stores (and they) all said that they did not have them.’

The sentence in (49a) exemplifies V_{ACQ}NV₂. This sentence has extended from the prototype with respect to conditions C, D, E, F, and J. The matrix verb of a V_{ACQ}NV₂ instance, for example *tou* ‘to steal’ in (49a), is transitive and involves two participants. It does not denote a static state and has a meaning neither related to ‘exist’ nor indicating the manner in which the pivot N exists. The pivot N, *iPhone*, although not affected physically because of the conducting of V₁, changes the ownership. No evidence shows that the fake iPhone is located in a fixed place at the speech time. The sentence is subject-initiated.

For V_{EME}NV₂ instances, the restrictive conditions C, D, and H are not followed. In these instances, the matrix verbs, for example *zhang* ‘grow’ in (49b), usually do not indicate existence or the manner of existence, but emphasize a dynamic process instead of a static state. The designation of the pivot N is limited to concrete things.

For reasons similar to those underlying (49a), example (49c), which is a typical case of V_{PRO}NV₂, also does not follow conditions C, D, E, and J. V_{PRO}NV₂ split regarding conditions F and H. In (49c), the pivot N refers to a specific concrete thing that is perceptible by the senses and has a fixed location on the speaker’s palm. However, in my data, V_{PRO}NV₂ instances in which the pivot N refers to abstract things and/or is not located in a fixed place also frequently appear. For example, all verbal phrases such as *xiangchu yige zhuyi* ‘figure out an idea’ and *yangcheng yige huai xiguan* ‘develop a bad habit’, in which N refers to abstract things and is not attached to a fixed location, can become the V₁N parts of the D-PVC. By definition, in a V_{PRO}NV₂ instance, the pivot N is brought into existence by the subject via the action V₁. Therefore, two other conditions, K and O, are also not followed. Condition L is violated because the pivot N results from the conducting of V₁.

V_{REL}NV₂, for example (49d), is unique in that the pivot N is exclusively a human being. This violates restrictive condition I. V_{REL}NV₂ also deviates from the prototypical D-PVC with respect to other conditions, e.g. C, D, and E, because the matrix verbs in this D-PVC primary type usually neither indicate existence nor denote a static state and the construction is subject-initiated. Conditions F, H, and I are not followed either because the pivot N in a V_{REL}NV₂ instance does not have a fixed location in a specific place; it can be neither inanimate nor abstract things. Conditions J and K are also violated. Typically, the matrix verbs are transitive and not necessarily responsible for the emergence of what the pivot N refers to. Instead, V₁ is responsible for establishing the relationship (e.g. marriage, adoptive, and master–apprentice, etc.) between its two participants, the subject and object (i.e. the pivot N). In accordance with the establishment of the relationship, condition M is not followed either. Among the consequences of the conducting of V₁ is also the pivot N’s acquiring of the relevant social relation/status, indicating the violation of condition O (i.e. the pivot N with the relevant social relation/status does not emerge until after V₁).

For reasons similar to those underlying V_{REL}NV₂, both V_{EXP}NV₂, for example (49e), and V_{MAN}NV₂, for example (49f), deviate from the D-PVC prototype with respect to conditions C, D, E, F, J, and M. Usually, the pivot N in V_{MAN}NV₂ refers exclusively to a human being, indicating the violation of condition I.

$V_{PRE}NV_2$ instances are not compatible with conditions C, D, E, F, and J, for reasons similar to those underlying $V_{REL}NV_2$, $V_{EXP}NV_2$, and $V_{MAN}NV_2$. As shown in (49g), in $V_{PRE}NV_2$, the pivot N is usually an abstract thing, indicating the violation of conditions H and I.

$V_{COG}NV_2$ instances, as exemplified by (49h), are not compatible with conditions C, D, E, F, and J. These instances split regarding their compatibility with condition L. In (49h), an instance of the LEARN subtype, the conducting of V_1 does not bring any physical change to the pivot N. However, in instances of the TEACH subtype, such as those headed by *jiao* ‘teach’, *xunlian* ‘train’, etc., the pivot N may be affected physically. Overall, condition L is not among the properties of $V_{COG}NV_2$.

The deviations of the non-prototypical primary types from $V_{PRE}NV_2$ are shown in Table 8.

Table 8: Deviations of the non-prototypical instances from the prototype

	$V_{PRE}NV_2$	$V_{EME}NV_2$	$V_{MAN}NV_2$	$V_{ACQ}NV_2$	$V_{COG}NV_2$	$V_{EXP}NV_2$	$V_{PER}NV_2$	$V_{PRO}NV_2$	$V_{REL}NV_2$
A	+	+	+	+	+	+	+	+	+
B	+	+	+	+	+	+	+	+	+
C	+	–	–	–	–	–	–	–	–
D	+	–	–	–	–	–	–	–	–
E	+	+	–	–	–	–	–	–	–
F	+	+	–	–	–	–	–	+/-	–
G	+	+	+	+	+	+	+	–	+
H	+	–	+	+	+	+	–	+/-	–
I	+	+	+	+	+	–	–	+	–
J	+	+	–	–	–	–	–	–	–
K	+	+	+	+	+/-	+	+	–	–
L	+	+	+	+	–	+	+	–	+
M	+	+	–	–	+	–	+	+	–
N	+	+	+	+	+	+	+	+	+
O	+	+	+	+	+	+	+	–	–

Among the 15 restrictive conditions, C and D, both of which represent constraints on V_1 , are the only ones that $V_{PRE}NV_2$ does not share with any non-prototypical instances. The following observations can also be made from Table 8:

- (i) The non-prototypical primary types are continuously connected to one another in the sense that the number of restrictive conditions they share with $V_{PRE}NV_2$ changes gradually.
- (ii) Four of the 15 restrictive conditions, A, B, and N, are common to all primary types. They are the *primitive constraints*, that is, the attributes any D-PVC instance necessarily has.
- (iii) The deviations of different primary types from $V_{PRE}NV_2$ with respect to the restrictive conditions may be the same, for example $V_{MAN}NV_2$ and $V_{ACQ}NV_2$. As stated in §4.2, the nine semantic types of D-PVC differ regarding the manner by which the pivot N is introduced into discourse or conversation, which are to a large extent decided by the semantic properties of V_1 . In $V_{MAN}NV_2$ and $V_{ACQ}NV_2$, the manners are ‘the subject manipulates the pivot N’ and ‘the subject catches the possession of the pivot N’,

respectively. They are different categories despite the fact that they share the similar deviation from the central members. In other words, there is no incompatibility between the ‘similar deviation from central members’ and ‘different semantic types’.

- (iv) From the left side to the right side, the distance from the original restrictive conditions of the D-PVC increases gradually. $V_{EME}NV_2$, which differs from $V_{PRE}NV_2$ with respect to conditions C, D, and H, represents the minimal extension from the prototype, whereas $V_{REL}NV_2$, which differs from $V_{PRE}NV_2$ with respect to 10 conditions (C, D, E, F, H, I, J, K, M, and O), represents the most extensive deviation from the prototype.

Clearly, the D-PVC permits considerable semantic extension from its prototype characterization. This accords well with the fact that, in modern Mandarin, the D-PVC is productive and capable of encoding a wide range of semantic variations.

The prototype approach also sheds light on some other related issues. For example, in §2.1, I mentioned that the verbs occurring in the V_1 slot of the D-PVC are constrained, but did not specify the factor(s) determining the range of these matrix verbs. From the standpoint of the exemplar model, both the production of novel instances of a construction and the acceptability of an element in a constructional slot are determined by the element’s similarity to the attested fillers of that slot (see Bybee 2010 and Bybee & Eddington 2006 for further detail). However, as shown in Ambridge & Goldberg (2008), the acceptability of a long-distance-dependency question does not correlate with the similarity of the matrix verb to the most frequently attested fillers of this slot. In line with the observation of Ambridge & Goldberg, it is not convincing to argue that the semantic properties of the matrix verbs play any decisive role in determining the distance between the non-prototypical and prototypical D-PVC instances, for at least two reasons: (i) it is difficult to determine in what way(s) the matrix verbs of non-prototypical instances—for example *pai* ‘dispatch’ and *tuijian* ‘recommend’, which head $V_{MAN}NV_2$, *zhong* ‘plant’ and *sheji* ‘design’, which head $V_{PRO}NV_2$ —are semantically similar to those heading prototypical instances ($V_{PRE}NV_2$), for example *you* ‘there be/have’, *fang* ‘put’, and *chuan* ‘wear’, *zhan* ‘stand’; (ii) judging from their semantic properties, we may not be able to tell exactly why some verbs, for example *dun* ‘stew’, *tan* ‘play (instrument)’, *daoyan* ‘direct’, *sheji* ‘design’, *canguan* ‘visit’, etc., can head the D-PVC, whereas some other verbs, such as *biaoyang* ‘praise’, *guanxin* ‘be concerned with’, *fang’ai* ‘impede’, *ma* ‘blame’, etc., as listed in Table 1, are unlikely to occur in the V_1 slot of the D-PVC. This leads to the conclusion that the semantic properties of the matrix verbs alone, on which the classification and taxonomy of the D-PVC have been based, can hardly serve as the criteria for the acceptability of D-PVC instances or as the predictors of the range of the matrix verbs of this construction. Instead, according to Table 8, a non-prototypical D-PVC instance may deviate from the prototype with respect to the properties of multiple elements, including V_1 , the pivot N, and V_2 , and the interaction among them.

6. Concluding remarks

In this article, I have investigated the modern Mandarin D-PVC on the basis of data from both CCL, a large-scale Chinese corpus, and online sources. My study shows that although D-PVC instances share the same abstract semantic interpretation, it is difficult to generalize over the

morphosyntactic and semantic constraints with respect to the obligatoriness of the classifier preceding the pivot N, the overt marking of the aspectual property of V_1 , and the possibility of transforming into the relative clause construction. On the basis of the semantic properties of the matrix verbs, I have established a nine-way classification of D-PVC instances, which allows us to identify, group, and name them in a more organized way. In the prototype account of this construction, I show that the primary type $V_{PRE}NV_2$ has privileged status, whereas other primary types have graded membership, which is not determined by the similarity of the matrix verbs to the verbs heading the prototype, but has to do with multiple factors. The prototype effect in the D-PVC indicates that semantically the instances of this construction are continuously related.

Because of the preliminary nature of this investigation, several issues, for example the range of the matrix verbs, have been raised, but not explored in depth. Presumably, instances of those non-prototypical primary types, which have graded membership in the D-PVC, may be heterogeneous with regard to the degree of acceptability. What interests me is whether there is a correspondence between the distance of the nonprototypical instances from the prototype and the degree of acceptability of these instances. For example, from $V_{EME}NV_2$ to $V_{COG}NV_2$ and eventually to $V_{REL}NV_2$, the instances become increasingly more marginal. The question is whether the acceptability of these instances, in this order, also becomes increasingly lower. This will be the primary concern of my next project, that is, a survey of the acceptability of the D-PVC instances with the native speakers of modern Mandarin, of which the present discussion is a prerequisite. In the new project, the prototype effects of the D-PVC subtypes will also be examined.

Appendix: Sources of data searched from CCL

Chinese title	English title	Period of compilation	Abbreviation
<i>Zhou Yi/Xu</i> 周易/需	<i>The Book of Yi, Xu</i>	Before 5 th BC	<i>Yi</i>
<i>Shiji/Liezhuan/Kuli Liezhuan</i> 史記/列傳/酷吏列傳	<i>Records of the Historian, Collected Biographies, Collected Biographies of Oppressive Officials</i>	90 BC	<i>Shiji</i>
<i>Chao Ye Qian Zai</i> 朝野僉載	<i>The Anecdotes of the Emperors, Ministers, and Common Men</i>	7 th –8 th AD	<i>Chao Ye</i>
<i>Zutang Ji</i> 祖堂集	<i>Zutang Ji</i>	952 AD	<i>Zutang</i>
<i>Taiping Guangji</i> 太平廣記	<i>Extensive Records Compiled in the Taiping Years</i>	978 AD	<i>Taiping</i>
<i>Gu Zunsu Yulu</i> 古尊宿語錄	<i>Ancient Zunsu Quotations</i>	12 th –13 th AD	<i>Gu Zunsu</i>
<i>Jin Ping Mei</i> 金瓶梅	<i>The Golden Lotus</i>	1567–1573 AD	<i>Jin Ping Mei</i>
<i>Sanbao Taijian Xiyang Ji</i> 三寶太監西洋記	<i>Expedition to the Western Ocean</i>	1598 AD	<i>Sanbao</i>
<i>Xiao Erhei Jiehun</i> 小二黑結婚	<i>Xiao Erhei's Marriage</i>	1943 AD	<i>Xiao Erhei</i>
<i>Lüliang Yingxiong Zhuan</i> 呂梁英雄傳	<i>The Lüliang Heroes</i>	1945 AD	<i>Lüliang</i>
<i>Gushu Yiren</i> 鼓書藝人	<i>The Dram Singers</i>	1948–1949 AD	<i>Gushu</i>
<i>Shanghai de Zaochen</i> 上海的早晨	<i>Shanghai Morning</i>	1958–1980 AD	<i>Shanghai</i>
<i>Sanjia Xiang</i> 三家巷	<i>The Alley of Three Families</i>	1960 AD	<i>Sanjia</i>
1982 <i>Nian Beijinghua Diaocha Ziliao</i> 1982年北京話調查資料	<i>Data of the Beijing Colloquial Language, Year 1982</i>	1982 AD	<i>Beijing</i>
<i>Lu Xiaofeng Chuanqi</i> 陸小鳳傳奇	<i>The Legend of Lu Xiaofeng</i>	1984 AD	<i>Lu Xiaofeng</i>
<i>Duzhe</i> 讀者	<i>Readers</i>	1991 AD	<i>Duzhe</i>
<i>Huangcheng Genr</i> 皇城根兒	<i>The Foot of Imperial Walls</i>	1992 AD	<i>Huangcheng</i>
<i>Baokan Jingxuan</i> 報刊精選	<i>Selected Articles from Newspaper and Magazine</i>	1994 AD	<i>Baokan</i>
<i>Zuojia Wenzhai</i> 作家文摘	<i>Writer's Digest</i>	1996 AD	<i>Zuojia</i>
<i>Liulei de Huaihe</i> 流淚的淮河	<i>The Tears of the Huai River</i>	1999 AD	<i>Liulei</i>
<i>Lantai Neiwai</i> 蘭臺內外	<i>Inside and Outside Lantai</i>	2004 AD	<i>Lantai</i>
<i>Xifang Zhixue Shi</i> 西方哲學史	<i>History of Western Philosophy</i>	2004 AD	<i>Xifang</i>
<i>Loushi</i> 樓市	<i>The Estate Market</i>	2004 AD	<i>Loushi</i>

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[Received 24 March 2014; revised 25 November 2014; accepted 6 December 2014]

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漢語述評兼語句的分類及原型效應

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這份研究初步調查漢語描寫兼語句，其語料均取自大型語料庫及互聯網。文章的關注重點是這種句子的語義分類及各類之間的關係。描寫兼語句中主、次動詞之間的兼語一般具有不定性，而且常有數詞短語修飾。這些數詞短語以數量結構占優，其中最普遍情形是「一＋量詞」的組配。依據其主動詞語義特徵，描寫兼語句可分九類，不同類別之間以連續性而非離散性的方式相關聯，其中主動詞含「存在」意義的句子具有原型或核心地位。描寫兼語句偏離其原型特徵幅度之大，與這類句子的高能產性和語義上的多元性相吻合。

關鍵詞：描寫兼語句，分類，原型效應