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Conceptual autonomy and dependence in Chinese lexical semantic analysis

The role of image-schema, conceptual domains and co-text in [v]–[shang]*

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The present study addresses the rate of conceptual autonomy and dependence in Chinese lexical semantic analysis, presenting an analysis of how image-schema, domains and co-text interact in the [v]–[shang] construction as an example. Following a Principled Polysemy methodology, I identify the semantic prototype and four metaphorical senses of the construction. I also show the co-textual characteristics associated with each sense, which opens up further discussion of how image-schema and conceptual domains collaborate to produce the various senses. Based on these findings, I further establish a hierarchy of influence from co-text, where the semantics of an RVC depends first of all on its collocating verb and secondarily on a collocating noun phrase. This paper aims to show in some detail how image-schema, conceptual domains and patterns of co-text co-contribute to the polysemy of RVCs. It moreover proposes a novel way of analyzing Chinese lexical semantics in terms of conceptual autonomy and dependence.

Keywords: resultative verb construction, polysemy, image-schema, conceptual domain, co-text, conceptual autonomy, conceptual dependence

關鍵詞: 結果式, 多義詞, 影像基模, 概念範疇, 前後文, 概念自主性, 概念依賴性

1. Introduction

Research on the semantics of resultative verb constructions (hereafter RVCs) has received increasing interest in Chinese linguistics since Y.R. Chao. (Chang 1994; Chang 2007; Chen 2008; Chou 1999; Chung et. al 2006; He 1992; Huang and

Chang 1996; Kim 2005; Li and Thompson 1981; Li 1999; Lien 2006; Liu 1997; Liu 1998; Liu et. al 1996; Lu 1977; Lu 1999; Lu 2002; Lu 2011; Lu and Su 2012; Packard 2000; Shi 2002; Starosta et. al 1997; Su 1997; Tai 2003; Teng 1997; Thompson 1973; Tsai 2008; Wang 2009; Wang and Su 2015; Zhang 2001). RVCs have also attracted considerable interest in the field of teaching Chinese as a second language (Chang 2010; Li 1999; Ross 1990; Tsai 2005). The linguistic phenomenon is interesting for its productivity and versatile semantics, which have presented a puzzle both for Chinese linguists and for Chinese learners. The semantic opacity of RVCs can be illustrated by a few examples involving the verb complement *-shang* below (hereafter [v]–[SHANG]).

(1) wo yi-shou   zhua-zhe ganzhe,   yi-shou   zai Dongdong
     I   one-hand hold-IMP sugarcane one-hand LOC Dongdong
     de laba xia,   pan-SHANG   le   tieniu-che.
     DE pull under climb-SHANG PFV tractor-car
     "With a stick of sugarcane in one hand, I climbed onto the trailer behind the
     tractor with a helping pull from Dongdong on my other hand."

(2) wo nuli   zai jie-ji   de renchao
     I   try-best LOC receive-plane DE crowd
     zhong, zhao-dao jü-zhe   xie-SHANG   wo mingzi de paizi!
     in   find-PFV hold_up-PRG write-SHANG I   name   DE sign
     "In the crowd that came to pick up people at the airport, I did my best to
     look for a sign with my name written on it."

As (1) and (2) show, *shang* refers clearly to a spatial configuration with one entity being on the surface of another. In particular, (1) involves an agent *wo* 'I' reaching the upper surface of *tieniu-che* 'tractor-car' and (2) a message *mingzi* 'name' written on the surface of *paizi* 'a sign.' The spatial configurations between the entities in these examples roughly correspond to one encoded by *on* in English. However, as we turn to (3), the configuration between the entities can no longer be expressed by *on*.

(3) mei yi-ze   youjian xunxi   dou hui fu-SHANG   yi-ge   guanggao
     every one-CL mail   message all   will attach-SHANG one-CL advertisement
     "There will be an advertisement attached to each mail message."

In (3), *shang* seems to exhibit a different meaning of one thing being connected to another, which can hardly be considered a counterpart of *on*. The relation between *youjian*, a message, and *guanggao* 'advertisement,' is in fact not one thing being located on the surface of another in a strict sense, as in (1) and (2).

    In addition to the foregoing instances, the murky meaning of [v]–[SHANG] is further complicated by (4) and (5) below.

(4) tingshuo jin   ji-nian   guo-nei   shiyu   mei-shijin jiaqian
     hearsay recent several-year country-in reeves-shad per-catty   price
     dou zai   san-weishu shenzhi pan-SHANG   si-weishu
     all   LOC three-digit even   climb-SHANG four-digit
     "(I) heard that in recent years, reeves shads in our country cost hundreds of
     dollars per catty, or even over a thousand dollars."

(5) keyi shi-zhe huanjia, youqi   ruoshi yao zhu-SHANG
     can try-IMP bargain especially if   want live-SHANG
     san-tian   huo yi-xingqi, jiage keyi geng pianyi
     three-day or   one-week price can more cheap
     "(You) may try to bargain. Especially if you are staying for three days or one
     week, the price can be cheaper."

Unlike (1) to (3), the meaning of [v]–[SHANG] in (4) and (5) is not physical but
abstract. In (4), the construction has a quantitative meaning of "more, to a certain
price level" and thus does not have a physical sense. Similarly in (5), the construc-
tion does not exhibit a physical meaning but one of staying over a span of time. As
we can see, these cases involve the concepts of QUANTITY and TIME, which makes
the constructional meaning even more obscure.

    With the above semantic complexity and the extensive interest that they have
received, the semantics of Chinese RVCs has proved to be an issue worthy of ex-
ploration. Therefore, in the present paper, I pick up this thread by taking a contex-
tualized look at the semantics of RVCs, with [v]–[SHANG] as a case in point.

2.   Literature review, research issues and scope

There has been a wealth of literature devoted to the semantics of Chinese RVCs,
adopting different analytic perspectives and based on different theoretical frame-
works. In general, traditional semantic descriptions focus on listing the possible
interpretations associated with a resultative suffix, paying limited attention to the
co-text of an RVC. However, recent studies in Chinese lexical semantics, especially
in the fields of cognitive and corpus linguistics (Chung et. al 2006; Lu 2008; Wang
2009; Lu and Su, 2012; Lu 2015; Wang and Su 2015, among others) have discussed
the influence that co-text may have on the interpretation of a target word. For our
current case of [v]–[SHANG], at least Chung et. al (2006), Wang (2009), Lu and Su
(2012), Lu (2015) and Wang and Su (2015) have addressed the contribution to the
semantics of the construction by the verb slot. However, although these studies
have identified the verb as an important contributor to the various meanings as-
sociated with [v]–[SHANG], the nuts and bolts of how the construction interacts

with its co-text remains unexplored, especially the role played by the nouns in the co-text. Wang and Su (2015) is a notable exception, where the authors mention the interplay of verbal arguments and the semantics of the [V] – [KAI] construction. However, the role played by the arguments in an RVC is not the authors' main concern so it is not addressed in detail. In view of this gap, I propose to carry out a more in-depth analysis to see if there exist any contextual factors to the semantic variation of [v]–[SHANG] other than the verb. However, note that if the nouns in the co-text do turn out to influence the semantics of the construction, this will give rise to another question that has passed unnoticed in the literature, namely, how do the two factors (collocating nouns and the verb) jointly contribute to the multiple meanings of [v]–[SHANG] and would that lead to a better understanding of the semantics of RVCs in general?

Furthermore, relatively little has been said in the literature about the cognitive underpinnings of RVCs. It is true that conceptual metaphor has been argued to be an important mechanism in the semantic extension of RVCs (e.g. Huang and Chang 1996; Kim 2005; Lu, Submitted; Wang and Su 2015). However, whether or not there is a connection between conceptual metaphor, co-text and the semantics of an RVC is an issue that has not been addressed. Therefore, a third aim of the present study is to determine whether there is any connection between the co-text of [v]–[SHANG] and its metaphorically derived constructional meaning(s).Finally, although image schema has been recognized as another important factor in cognitive semantic analysis (Hsieh 2013; Lu 2011; Lu 2015; Lu, forthcoming; Wang and Su 2015), little is known about how image schema corroborate with conceptual metaphor to generate lexical polysemy for RVCs. This then constitutes the fourth research issue of this paper.

With the above questions in mind, the scope of the paper is set accordingly. This paper is intended as a qualitative analysis of how the verbs and nouns in the co-text co-contribute to the variation in meaning of RVCs in Chinese, with [v]–[SHANG] as illustration. Of particular interest are the roles of metaphor and image-schema, so I will focus on the prototypical sense and a few metaphorically derived senses that share a similar image-schematic structure.

The main analytical framework adopted is Cognitive Grammar (hereafter CG, see Langacker 1987, 1990), which has at least three advantages given the research concerns of the present paper. As a usage-based approach, CG firstly epitomizes the role of context and encyclopedic knowledge in linguistic analysis. Secondly, as an experientialist approach, conceptual domains play an important role in CG's view. Thirdly, founded mostly on principles from Cognitive Psychology, CG pays fundamental attention to prominence, and more specifically to trajector-landmark alignment and image-schema representations. It is therefore the ideal theoretical model of language for the purposes of the present paper.

However, a main issue with CG has been its lack of objective criteria for cognitive semantic analysis.[1] Therefore, an approach to semantics is needed that is capable of objectively describing word meanings. Principled Polysemy (Evans 2004; Tyler and Evans 2003, hereafter PP) is precisely such a methodology that distinguishes word senses based on textual criteria. According to PP, a semantic interpretation can be judged to stand alone as an established sense,[2] if it has either its own grammatical characteristic or its own collocations, although a satisfaction of both criteria will be the ideal case. The choice of PP as the other descriptive framework, in complement to CG, is to better observe the interaction between the formal level and the functional level of language. With PP's methodology, we are allowed a more objective definition of a word's function, which is evidenced by its syntagmatic relationship with other linguistic forms in the co-text. Therefore, the addition of PP as a means to capture the co-text of a sense is done exactly as a reaction to the criticism of being subjective toward CG analyses, so as to provide descriptive adequacy to my analysis. In the case of image-schematic representation, PP also provides an objective description of which part of a conceptual scene is linguistically elaborated, which reflects the conceptual profile of an event.

In order to do justice to the interaction between a resultative and its co-text, I observe authentic data following the methodology of PP. The examples presented are all from Sinica Balanced Corpus of Modern Chinese. Intuition and constructed examples are also used whenever appropriate.

3.   Senses that share an image-schematic structure

In this section, I discuss the senses that fall within the scope of the present paper, including the prototypical sense 'vertically attained' and its extension 'attached', which are both instantiated in the conceptual domain of SPACE. In order to further discuss the role played by image-schema and metaphor, I selectively present the metaphorical senses that share the same imagistic structure with the two spatial senses, which include 'as many as,' 'in addition to', 'as senior as,' and 'as long as' (in

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1. I thank one of the reviewers for pointing this out.

2. *Sense* is used as opposed to *meaning* and *interpretation* in the present paper, with the former reserved only for a meaning or interpretation that is methodologically sanctioned a distinct semantic status.

terms of time).[3] In addition, I will discuss the image-schematic content evoked by these senses.

3.1 'Vertically attained'

The prototypical sense of [v]–[SHANG], given the methodology of sense distinction of PP, is 'vertically attained.'[4] Two co-textual characteristics are found to define it: A preceding verb of motion and a noun phrase as the endpoint of the trajectory in SPACE that follows. Verbs found to occur in this cluster include, *ben* 'run', *pa* 'crawl', *fei* 'fly', *deng* 'mount', among many others. Excerpts (6) and (7) are typical examples.

(6) supu yimian da-jiao "aman!" yimian ben-SHANG xiao-qiu…
     Supu while   big-yell Aman   while   run-SHANG small-hill
     'Supu ran up to the hill while shouting "Aman!"'

(7) daihui wo pa-SHANG   wu-ding   qu chan-yi-chan   xue
     later   I   crawl-SHANG house-top go shovel-ASP-RED snow
     "Later, I'll climb onto the roof to shovel snow."[5]

In these two examples, the agentive noun that precedes the verb encodes the trajector (hereafter tr)[6] that follows a path in the vertical dimension and finally arrives at a SURFACE[7] as its final goal of the movement, which are linguistically elaborated by the verb of vertical motion and the noun phrase that follows [v]–

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3. Interested readers are referred to Lu (2011) for a more comprehensive presentation of all the senses. Two other metaphorical senses are also discussed in Lu and Su (2012) and Lu (forthcoming), in addition to those presented here.

4. Note that the ordering of the senses is not intended to reflect the diachronic development of [v]–[SHANG] but to reflect the radial structure of its semantic network, with 'vertically attained' as the semantic prototype, which can also be methodologically determined by PP. I observe that 'vertically attained' meets more criteria than the other senses so should be considered the semantic prototype. Interested readers are referred to Lu (2011) for related details.

5. The gloss of *pa* should be 'crawl' if it occurs alone, but it will have to be translated as 'climb' if it is followed by *-shang*.

6. A trajector (tr) refers to the primary figure in a conceptual scene that receives the most attention, as opposed to a secondary figure, or landmark (lm), that does not receive as much attention and is considered the background for perceiving/conceiving the tr. The tr/lm distinction here is based on Langacker's (1987) definition.

7. Note that SURFACE does not necessarily have to be a defining feature of the noun phrase that follows. Rather, the notion of SURFACE should be understood in a rough sense to refer to a location which the elevating tr finally arrives at and can rest on.

[SHANG], respectively. In particular, it is the verb of *ben* 'run' in (6) and *pa* 'crawl' in (7) that instantiates such verb, and *xiao-qiu* 'small-hill' in (6) and *wu-ding* 'house-top' in (7) that instantiates the noun phrase after the RVC.

Based on the above generalization, we discuss which element is profiled (Langacker 1987) among the SOURCE-PATH-GOAL image schema (Johnson 1987). I observe that the portion of PATH is profiled, for the trajectory in SPACE is elaborated by the motion verb, and that the GOAL is also profiled, for it is encoded by the noun phrase after [v]–[SHANG]. The image-schematic structure can be represented by Figure 1 below, with the lower circle and the upper one standing for the SOURCE and the GOAL, the vertical arrow for the PATH, and the horizontal line for the SURFACE evoked by the GOAL. Boldness symbolizes profiling. The tr (the moving entity in the conceptual scene) is represented by the circle and the lm (the stationary surface) by the horizontal line.
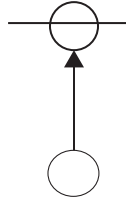

Figure 1. The image-schematic structure for 'vertically attained'

Below, I turn to another physical meaning that is also instantiated in the domain of SPACE.

3.2 'Attached'

The second sense of [v]–[SHANG] in the domain of SPACE is 'attached.' This sense is characterized by the following elements in its co-text: a verb that encodes an act of applying substance to a SURFACE, and a noun phrase after [v]–[SHANG] as a theme of the verb in the co-text that involves the notion of SURFACE. Verbs that are found to occur in this usage cluster include *shua* 'brush', *pen* 'spray', *hua* 'draw', *xie* 'write', among numerous others. Instance (8) and (9) typify this group of usages.

(8) fangwu wai, dou shua-SHANG bu-tong   de yanse…
     house   out all   brush-SHANG NEG-same DE color
     "The outside of the houses was all painted with different colors …"

(9) …zai qiang-SHANG[8] hua-SHANG da ru niu   de fei-zhu
       LOC wall-SHANG   draw-SHANG big like buffalo DE fat-pig
       "(They) drew on the walls fat pigs that were as big as buffalos."

These excerpts depict a process of a substance applied to a SURFACE by a possibly implicit agent, with the generation of the theme as the result of the process. In (8), the theme, *bu-tong de yanse* 'different colors,' is the result of the act of someone painting with a brush, elaborated by the verb *shua* 'brush.' The SURFACE to which the paint is applied is implicitly prompted by the noun phrase *fangwu*, in the sense that the actual location to which the paint is attached, i.e. the WALL, is inherent in the conceptual frame (in the sense of Fillmore 1982) of a HOUSE. In (9), the process of applying substance is encoded by the verb *hua* 'draw,' with *fei-zhu* 'fat-pig' standing for the theme created by the act of drawing. The notion of SURFACE is also prompted by a noun in the co-text of [V]–[SHANG], i.e. *qiang* 'wall.'

Note that the 'attaching substance' does not have to be liquid, although both the ones that we have seen in (8) and (9) are. Example (10) is an example with a solid entity attached to a SURFACE.

(10) shulin li, hong de, huang de, ge-zhong   yanse de shuye, diaoluo zai
        woods in red   DE yellow DE every-kind color DE leaf   fall   LOC
        di-SHANG,   wei shanlin pu-SHANG   yi-ceng caise de ditan.
        ground-SHANG for woods cover-SHANG one-CL color DE carpet
        "In the woods, red leaves, yellow leaves, all kinds of leaves fall to the ground,
        which covered the woods with a carpet."

Here, what is made to attach is *ditan* 'carpet,' which while not being liquid nevertheless fits well the SURFACE that it covers.

With the above generalization, we can see that only the portion of GOAL is profiled in the SOURCE-PATH-GOAL schema. Unlike what we have seen for 'vertically attained,' the PATH for this cluster is not linguistically elaborated and does not receive much attention, becoming implicit in the conceptual base. On the other hand, the GOAL, invoked via the presence of SURFACE, remains conceptually prominent, so is still a profiled element. The imagistic structure is shown as Figure 2, with the dotted vertical line representing the conceptual content of vertical elevation that is present in the prototypical sense of 'vertically attained' but not here.[9]

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8. *Shang* exhibits a variety of grammatical behaviors in use. It may act as a verb, a noun, a postposition, or a resultative. What we see in *qiang-shang* 'wall-SHANG' is a typical use of 'SHANG' as a postposition.

9. A juxtaposition of Figure 1 and 2 implies the process of subjectification to be at work in the semantic change. Interested readers are referred to Lu (forthcoming) for details.
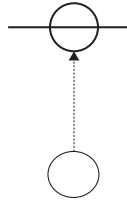
Figure 2. The imagistic structure for 'attached'

The two senses discussed above are both usage clusters instantiated in the domain of SPACE, with 'vertically attained' as the prototypical sense and 'attached' as an extension from it. Below, I introduce the metaphorical senses of [V]–[SHANG], i.e. senses that involve cross-domain conceptual mappings as their mechanism of semantic extension. Two senses in the domain of QUANTITY and two in TIME will be shown.

3.3 'As many as'

'As many as' is one of the two metaphorical senses that are instantiated in the domain of QUANTITY. This semantic category is syntagmatically defined by a motion verb that precedes *-shang* and a numerical noun phrase that follows, indicating the quantitative threshold that the elevating agent reaches. Typical verbs that instantiate this sense include *pan* 'climb', *yue* 'jump', *chong* 'sprint', among numerous others. Excerpt (4) is a typical example, repeated here as (11) for ease of reference.

(11) tingshuo jin ji-nian   guo-nei   shiyu   mei-shijin jiaqian dou
      hearsay close several-year country-in reeves shad per-catty   price   all
      zai   san-weishu shenzhi pan-SHANG   si-weishu
      LOC three-digit even   climb-SHANG four-digit
      "(I) hear that in recent years, reeves shads in our country cost hundreds of
      dollars per catty, or even over a thousand dollars."

In (11), the tr, *shiyu mei-shijin jiaqian* 'reeves shad per-catty price', is understood to be in a vertical motion, elaborated by *pan* 'climb', and finally reaches a quantitative lm, *si-weishu* 'four-digit'.

With the foregoing observation, we are able to further analyze the imagistic content associated with this semantic cluster. I argue that both the PATH and the GOAL are profiled elements against the conceptual base of the SOURCE-PATH-GOAL schema. I observe that the PATH is salient, for it is elaborated by the motion verb, like what we have seen for 'vertically attained', and that the GOAL is also in profile, for the existence of the numerical noun phrase that instantiates the endpoint of the increase in QUANTITY. The pictorial representation is given as Figure 3, with both the PATH and the GOAL in dash, for these are not an actual motion or an actual

physical lm but a simulated elevation and an imaginary standard in an abstract conceptual domain.
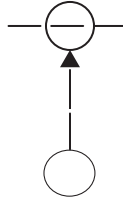

Figure 3. The image-schematic structure for 'as many as'

Below, I introduce the other metaphorical sense that is also instantiated in the domain of QUANTITY.

3.4 'In addition to'

'In addition to' is the other metaphorical sense of [V]–[SHANG] instantiated in the domain of QUANTITY. This sense is characterized by two features in its co-text: verb of ADDITION and a noun after the construction as the theme elaborating what has been added on top of the original element. Typical verbs that are found to occur in this category include *jia* 'add', *tian* 'supply', *fu* 'attach', *cha* 'insert', among others. Excerpt (12) and (13) exemplify typical usages.

(12) mouxie… tiyi,   kongpa xuyao xiangdang shiri de guihua,
   some   suggestion afraid   need quite   time DE plan
   jia-SHANG caiwu yu waijie tiaojian   de peihe…
   add-SHANG finance and external condition DE cooperation
   "Some suggestions, I'm afraid, may need planning for quite a while, in addition to the joint working of some financial and external conditions…"

(13) shei ye mei nage dan   gan gen heiniu du   yi-chang ming,
   who also NEG that gallbladder dare with Heiniu gamble one-CL   life
   zai   ti ta tian-SHANG   san-tiao qiang-xia yuan-hun…
   again for he supply-SHANG three-CL gun-under innocent-spirit
   "Nobody at all dared to challenge Heiniu, whom (they believed) would cost three more innocent lives"

In the examples are verbs of ADDITION, *jia* 'add' in (12) and *tian* 'supply' in (13), followed by an element supplemented in addition to the existing one, elaborated in (12) by *caiwu yu waijie tiaojian de peihe* 'finance and external condition DE cooperation' and in (13) by *san-tiao qiang-xia yuan-hun* 'three-CL gun-under innocent-spirit'. However, what precedes the verb is not strictly an agent, but an agent or the originally existing element before the act of ADDITION.

Given the above generalization, I give the image-schematic content of [v]– [SHANG] 'in addition to' as Figure 4. In this usage cluster, only the PATH is profiled. It is represented similarly by a dotted line for its non-physical and fictive nature. The GOAL remains in the conceptual base, for what the theme elaborates is the supplied element, i.e. the differential between the original amount and the final sum. Note that the SOURCE is not an element necessarily in profile, since the original element does not always have to be linguistically elaborated. Sometimes the agent may take the slot as well.
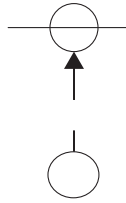

Figure 4. The imagistic structure for 'in addition to'

In 4.3 and 4.4, I introduced two metaphorical senses, which are instantiated in the same conceptual domain, and each of which has its own co-variation with co-text and a corresponding image-schematic structure. Therefore, it seems that a conceptual domain may couple with multiple co-textual and imagistic possibilities to generate multiple meanings. A look at the relations between other metaphorical senses of [v]–[SHANG] and their domains of instantiation, the observed multiple coupling is not at all a curiosity. Below, I discuss two other metaphorical senses that are instantiated in the same abstract domain: TIME.

3.5 'As senior as'

'As senior as' is one of the two senses instantiated in the conceptual domain of TIME. This sense is characterized by a verb of vertical motion and a temporal noun phrase as the result that specifies the seniority of the agent. In this semantic category, I only identify one type of verb, *sheng* 'rise', with many other noun phrases that are associated with the notion of seniority, such as *wu-nianji* 'fifth grade', *guo-zhong* 'junior high', *daxue* 'university', among some others. Consider (14) below.

> (14)   zicong sheng-SHANG wu-nianji, wo de sixiang huran   gaibian le…
>   since rise-SHANG   five-grade I   DE thought suddenly change CRS
>   "Since I turned a fifth-grader, my mentality has changed…"

In this instance is the verb of elevation, *sheng* 'rise', with the temporal noun phrase *wu-nianji* 'five-grade' that elaborates the endpoint of the agent's vertical, though

not actual, trajectory, which encodes the final level of seniority of the tr after certain time has passed by.[10]

With the above observation regarding the influence of co-text on the meaning of [v]–[shang], the image schematic content for this usage cluster can be depicted as in Figure 5. The path is in profile for the elaboration of the motion verb, and the goal is also salient for the existence of the following noun phrase. Both are represented in a dotted line, for they are not actual motions or locations in space but a fictive one in an abstract domain.
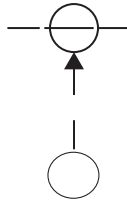

Figure 5. The imagistic structure for 'as senior as'

Below, I address the other metaphorical sense instantiated in the domain of time: 'as long as' (in terms of time).

3.6 'As long as' (in terms of time)

In contrast to the other temporal sense of 'as senior as', the co-text of this sense exhibits a very different pattern. In particular, in this usage cluster are dynamic verbs that encode a process typically lasting over a period of time and temporal noun phrases as the theme that elaborate the duration of the progressive action performed. Verbs found to occur in this group include *tuo* 'procrastinate', *deng* 'wait', *zhu* 'live', *guang* 'shop around', among many others. Excerpt (15) and (16) are typical.

(15) youshihou, yi-ge   anzi keyi zhulian xuduo ren,   tuo-shang
       sometimes one-cl case can involve many people procrastinate-shang
       haoxie nian.
       some   year
       "Sometimes, a (legal) case could involve many people, remaining unsolved
       for some years."

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10. Note that it is the notion of seniority that is crucial here. I make such a claim because the noun can be instantiated not only by noun phrases typically associated with time like *wu-nianji* 'five-grade', *liu-nianji* 'six-grade' but also by various job titles reflecting the level of seniority in an organization, such as *jiaoshou* 'professor', *jingli* 'manager', etc. Although time is not the most salient notion associated with these noun phrases, the connection between seniority and time becomes obvious when such noun phrases are understood against their entire conceptual frame (e.g. *professor* understood against *assistant professor*, *associate professor* and *university*).

(16) yiwang,   zhe keneng dei   deng-SHANG wu liu nian.
      in the past this may   have to wait-SHANG five six year
      "In the past, this might have to wait for five (or) six years."

In both examples are dynamic verbs that last over a certain period of time, such as *tuo* 'procrastinate' in (15) and *deng* 'wait' in (16). The construction is furthermore followed by a temporal noun phrase as the theme, *haoxie nian* 'some year' in (15) and *wu liu nian* 'five (or) six year' in (16), elaborating the temporal span of the continued action.

I argue that the PATH is the only profiled element, since the duration, i.e. the length of a continued action understood in terms of the length of a trajectory in SPACE, is the only element that is linguistically elaborated in the SOURCE-PATH-GOAL schema. The other bits of the conceptual base, i.e. the SOURCE and the GOAL, have no corresponding linguistic manifestations. The image-schematic representation for [V]–[SHANG] 'as long as' is accordingly presented as in Figure 6.
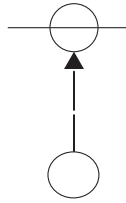

Figure 6. The imagistic structure for 'as long as'

Up to this point, I have discussed two physical senses and four metaphorical ones of [V]–[SHANG], each with its own distinct set of collocating verbs and nouns as co-text. In addition, each sense also has its own conceptual characterizations, and that includes its domain of instantiation and imagistic structure.

Now a further question arises: Can we generalize any possible connections between linguistic form, meaning and concepts, so that we can more properly address the research questions raised at the beginning of this paper?

4. The making of word senses: A contextualized take

With a view to answering the above query, I discuss the interplay between form (generalized patterns of co-text) and concept (conceptual domain and image-schema), and whether this interplay can further inform a new way of cracking the semantic code of Chinese RVCs.

4.1 Multiple coupling of domains, imagistic structures and patterns of co-text

Of particular interest in the above analysis is the multiple coupling relations between domains, image-schemas and patterns of co-text.

First, if we look at the interconnection between a conceptual domain and the relevant sets of co-text which invoke that particular domain, we notice that a domain can be triggered by multiple patterns of co-text. For instance, in [v]–[SHANG], the domain of QUANTITY can be invoked by either the co-text of 'as many as' or that of 'in addition to'. The domain of TIME can similarly be prompted by more than one possible sets of co-text: either that of 'as senior as' or that of 'as long as'.

What is striking is the fundamental difference in the textual trigger of domain mapping between the senses associated with the *same* conceptual domain. Specifically, for the sense of 'as many as,' the domain of QUANTITY is always invoked by the noun phrase that follows [v]–[SHANG], whereas for the sense of 'in addition to', QUANTITY is triggered by the verb.[11] But on the other hand, the story for TIME is a more subtle one. Although for both 'as senior as' and 'as long as', it is the noun phrase following the construction that does the job, with similar effects achieved by clusters of nouns of a very different nature. In particular, TIME can be evoked either by a noun phrase that is only peripherally related to it, or by a phrase of duration in a straightforward manner.

The following observation further complicates the matter — The phenomenon of multiple coupling happens not only between domains and patterns of co-text but also between image-schemas and domains. In particular, note that the same image-schema can be mapped onto different conceptual domains to create different meanings. If we compare the imagistic structure of 'vertically attained,' 'as many as' and 'as senior as', it is obvious that the three senses are all PATH- and GOAL-prominent, with the only conceptual difference in their domains of instantiation. The same happens to 'in addition to' and 'as long as', which are both PATH-prominent. What is interesting is that the opposite holds as well: A single conceptual domain may accommodate more than one type of image-schema. If we return to our previous discussion on how a domain can be prompted by different sets of co-text, an upshot is that the various possibilities each has its own corresponding image-schematic content, which leads to a possible coupling of one domain with multiple image-schemas.

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11. In some cases, the noun phrase that follows [v]–[SHANG] may also invoke the domain of QUANTITY along with the verb of addition, if it contains a number. However, if the added element does not involve a number, then the only textual cue that triggers QUANTITY is the verb. Therefore strictly speaking, I hold the verb primarily responsible for introducing the domain of QUANTITY in this semantic category.

Remember my previous comment that the conceptual operation of domain mapping may be introduced by different textual triggers. Now an analogy can be witnessed for the working of image-schemas. Specifically, in the various semantic clusters of [v]–[SHANG], the PATH can be invoked by the following possibilities in different sets of co-text: by the verb in 'vertically attained,' 'as many as', and 'as senior as', or by the noun phrase of duration after the construction in 'as long as' and the noun phrase that elaborates the added element in 'in addition to'. The GOAL may likewise be invoked by a variety of possibilities in different senses: by the locative noun that precedes the verb in 'attached', by the locative noun that follows the entire construction in 'vertically attained', by the noun phrase signaling the quantitative threshold in 'as many as', or by the noun phrase of seniority in 'as senior as'.

From the above examination, a broader claim can be made: The semantics of [v]–[SHANG] should be discussed with reference to its immediate co-text in the form of [N1]–[v]–[SHANG]–[N2], where its semantics is decided by two independent yet collaborative conceptual operators of domain mapping and image-schematic configuration. Each of the conceptual operators is in turn possibly influenced by various slots in the textual pattern and has to be determined by the specifics of individual usage clusters.

4.2 The role of conceptual autonomy and dependence in semantic analysis

In 4.1, I discussed how nouns and verbs in the co-text may come into play in deciding the semantics of an RVC by linguistically elaborating certain components of an image-schematic content and by invoking a certain conceptual domain.

Now another question follows at the level of linguistic analysis: should we treat those collocating nouns and verbs on a par in discussing the semantics of an RVC?

I argue that the verb should take priority in the semantic analysis of RVCs. As a resultative, *-shang* is always suffixed to the verb, and this immediate structural dependence of *-shang* on its preceding verb reflects a similar conceptual dependence (in the sense of Langacker 1990: 170ff), which I argue to be at stake in determining the hierarchical order of influence from the noun and the verb in the co-text of an RVC. Based on Langacker's idea of conceptual autonomy (A) and dependence (D), we may analyze *-shang* as a resultative that is conceptually dependent on the verb it is suffixed to. We determine the A-D alignment to be so, because the verb elaborates the almost infinite varieties of processes which *-shang* is a part of, while there is only a limited inventory of resultative suffixes that is allowed after a verb, designating the possible outcome of the process, which is not quite many and hence predictable to a certain extent. Therefore, it is *-shang* that needs the verb to elaborate a salient substructure of it and to specify the exact semantic and conceptual content with the elaborated substructure, rather than

vice versa. Given the above A-D alignment, the first determiner of the semantics of an RVC is the verb that accommodates *-shang*, which I believe explains why the verb has been considered a main semantic determiner of Mandarin resultatives in previous studies.

The above claim is consolidated by how the semantics of [v]–[SHANG] varies in two specific usages from different semantic categories. For example, if we compare *pan-shang* 'climb-SHANG' and *deng-shang* 'wait-SHANG,' we see that the meaning of the construction varies clearly, as the substructure of *-shang* is elaborated by verbs of a very different nature. However, *pan* and *deng* do not change much of their meanings whether *-shang* is suffixed or not, as the elaboration of their substructures by *-shang* is minimal and not salient enough to cause a noticeable semantic shift.

Accordingly, [N2] becomes the second possibility to turn to after the verb. I suggest the assembly of [v]–[SHANG] be considered a dependent predication on [N2] and [N2] an autonomous predication relative to [v]–[SHANG]. This is because, as a process, [v]–[SHANG] needs [N2] to elaborate its salient substructure (LOCATION, QUANTITY, ADDED ELEMENT, etc.) in which (or to which) the process happens, so that the exact semantics and conceptual content of the RVC can be specified by the addition of [N2]. However, the reverse is not true, for as a LOCATION, QUANTITY or ADDED ELEMENT, [N2] does not need a process to elaborate much of its substructure in order to determine its exact semantic and conceptual content.

The above argument becomes straightforward after a reconsideration of (1) and (4), which are more specific instantiations of the same resultative type of *pan-shang* 'climb-SHANG'. The exact meaning of *pan-shang*, out of its co-text, is unspecified, for no information as to the final endpoint and the domain of its trajectory is provided. But an addition of [N2] clarifies a substantial substructure of *pan-shang* and gives the RVC very different interpretations in the two excerpts. However, the other way round does not hold. We do not see a radical change in meaning for the noun phrases *tieniu che* 'tractor-car' and *si-weishu* 'four-digit' after an addition of the RVC.

With the above argumentation, I hope to have established how exactly the noun and the verb work on the semantics of a Chinese RVC in a collaborative manner. Typically, the decision of the semantics of an RVC should start with the resultative suffix as a dependent predication, which is structurally dependent on and conceptually elaborated by the autonomous predication relative to it, which is the verb. However, the semantics of an RVC may undergo further elaboration, when the composite RVC is joined by another autonomous predication relative to it, i.e. [N2]. We witness that the above operational sequence forms a hierarchy, by

which particular bits of the co-text of an RVC can be observed to exert influence on its semantics.[12]

Now that we have established the influential hierarchy of co-text, we can move on to discuss how a metaphorical sense is created in use in connection to Croft's (1993) discussion on the relation between domain mapping and the A-D alignment. For our current case of [v]–[SHANG], the abstract domain may first of all be introduced by the verb as the autonomous predication relative to it, which can be illustrated by cases like *jia-shang* 'add-SHANG', *tian-shang* 'supply-SHANG', and so on. The abstract domain may alternatively be introduced by [N2] as the autonomous predication relative to [v]–[SHANG], as in *pan-shang si-weishu* 'climb-SHANG four-digit' and *sheng-shang wu-nianji* 'rise-SHANG five-grade.' I believe that the above alternatives of how a metaphorical sense of an RVC can be derived by its co-text should hold for all Chinese RVCs across the board.

Finally, it is noteworthy that the notion of A-D alignment is important not only in lexical semantics, but also in the study of other phenomena in Chinese linguistics. For instance, Thepkanjana and Uehara (2015) also apply Langacker's notion of A-D alignment in their contrastive analysis of *gei* and its translation equivalent in Thai. Their application of CG to the functional description of equivalent constructions is in line with what I have proposed here.

5. Conclusions

In this paper, I set out from a partial analysis of the semantics of [v]–[SHANG], which has received considerable attention in Chinese linguistics. By adopting a methodological combination of CG and PP, I was able to generalize distinct patterns of the co-text of the construction, each associated with a conceptual semantic category. Such generalizations in addition allow us to see how the collaboration of image-schemas and conceptual domains produces various senses. Based on the analysis, I moreover established a hierarchy of co-text, which details the operational sequence of how a collocating noun and a verb of an RVC may contribute to its semantics.

It should be noted that the senses listed in the present study is by no means exhaustive, which I hope is understandable given a contextualized analysis of the interaction between co-text and conceptual factors as the main point of the present

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12. Note that my argument here does not amount to saying that [N1] plays no role at all in the semantics of an RVC. However, the main point to be taken here is that the most immediate semantic determiner for an RVC is the autonomous predication relative to -*shang*: its collocating verb.

paper. However, it will evidently be necessary to investigate what other verb types may enter the [v]–[sʜᴀɴɢ] construction in further research on this topic. The future research agenda should also be extended to RVCs that involve other directional elements, which may allow us to come to a more general understanding of Chinese RVCs.

In conclusion, in this paper a particular method of analysis based on CG and PP has been applied to the study of [v]–[sʜᴀɴɢ]. Through this analysis, it is hoped that the phenomenon of multiple coupling among image-schemas, conceptual domains and patterns of co-text has been demonstrated. It is also hoped that the hierarchy of influence proposed above, based on the principle of A-D alignment, can be applied to Chinese cognitive semantic studies more generally.

Acknowledgements

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