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Compositionality as a Prototypical Category

Classifying Chinese Four-character Idioms

Abstract: This paper proposes a classification of Chinese four-character idioms into prototypical categories of high, medium, and low compositionality on the basis of a cognitive linguistic approach to compositionality. Traditional views of idiomaticity usually regard idioms as “dead” metaphors, ruling out any compositional analysis of their constituent words to derive their idiomatic meanings. However, Cognitive Linguistics takes a contrary view of meanings of constituent parts and meanings of idioms comprised of these parts. It is proposed in this paper that the constituents of some idioms possess identifiable meanings associated with idiomatic meanings and compositionality can be regarded as a feasible criterion for sorting Chinese idioms. In light of the degree of contribution given by individual Chinese characters’ meanings to the stipulated figurative meanings, Chinese idioms can be classified into three types, i.e. as having a high, medium, or low degree of compositionality. The introspection-based classification and a series of rating studies have been justified within the Cognitive Linguistic framework of Idiomatic Activation-Set (Langlotz, 2006).

Keywords: Chinese four-character idioms; Cognitive Linguistics; compositionality; idiom classification

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1 Introduction

There is an inexhaustible storehouse of idioms in many languages, the Chinese language being no exception. In the Chinese lexical system, Chinese idioms are a typical and important unit. To adequately explain the anatomy

of idioms, a set of different dimensions have been proposed by phraseologists (e.g., Nunberg, Sag, & Wasow, 1994; Fernando, 1996; Moon, 1998). As an individual type in the domain of idioms, the majority of Chinese idioms conform more or less well to those common features. Nonetheless, they have some unique qualities.

It has often been a vain attempt to give a categorical definition of idioms because the set of linguistic expressions termed “idiomatic” is heterogeneous. Nunberg et al. (1994: 492) classified English idioms into prototypical examples and related categories and focused their research on the former, i.e. phrasal idioms, exemplified by *take care of NP* and *kick the bucket*. As mentioned by Li (2001: 330), Chinese phraseologists have not yet reached putative agreement on the solution to disperse the terminological haze. A clear-cut “border line” has never been drawn between Chinese idioms and idiomatic expressions that have been widely established in the lexicon, such as *feng gong shou fa*¹ (奉公守法, work for public interests and abide by the law; a fine work style of officials).² However, it is possible for a person to recognize a written Chinese idiom at first sight on the basis of formal characteristics. The reason lies primarily in the four-character form – the most distinctive feature boasted by Chinese idioms. The formal complexity of the construction of idioms in some other languages is generally described as ‘multi-word units’. Differently, the Chinese lexicon provides an exact number of the characters in such a unit. According to the statistics given in Zhou (2004: 230), the total number of entries included in *Dictionary of Chinese Idioms* (1987) is 17,934, of which 17,140 are four-character idioms, or 95.57% of the total.

The uniformity in form regulates to a large extent other linguistic characteristics of Chinese idioms, specifically phonological structure and semantic distribution. On the one hand, compatible with the rhythmical arrangement and prosodic features represented by the two-plus-two syllables,

1 The empirical basis of this study includes this kind of idiomatic expression that has been fixed in the Chinese lexicon. To put it in another way, any idiomatic expression like this example will be seen as a Chinese idiom as long as it can be drawn from any of the formally published dictionaries of Chinese idioms.

2 In this paper, all examples of Chinese idioms are presented in the same format: the phonetic transcriptions of the four characters in a Chinese idiom are written in italics. In the subsequent parentheses, the Chinese idiom is displayed in simplified Chinese characters, followed by a literal translation and a free translation separated by a semicolon. If the two translations are identical to each other, only one of them is provided.

a considerable number of Chinese idioms typically consist of double substructures, mostly parallel with each other (Sun, 1989: 77).³ On the other hand, many Chinese idioms display an antithesis in their internal semantic distribution. In fact, the two-plus-two character combination occupies the largest proportion in all structural types of Chinese idioms (Sun, 1989: 150; Zhou, 2004: 213). To illustrate these points, a letter string ABCD is here taken to stand for a Chinese idiom characterized by the features of a parallel grammatical structure, each letter representing one character. AB and CD are double substructures with the same grammatical structure, either synonymous or antonymous in meaning.⁴ Moreover, A and C, B and D are identical or contrary to each other in meaning. In addition, many Chinese characters, despite repetition in their own meanings, have been purposely encapsulated into a Chinese idiom so as to suit the requirement of a four-character form. Branded with a distinct national style, Chinese idioms mirror the aesthetic pursuit of symmetry that is deeply embedded in oriental thinking.

According to related etymological studies done by some Chinese phraseologists (Liu, 1985; Ma, 1985; Sun, 1989; Zhou, 2004), the majority of Chinese idioms took shape quite a long time ago, some even during the pre-Qin period (770–221 BC) in the history of China, and have been handed down to this very day. Many Chinese idioms can be traced back to those classical literary works created in ancient China. This mere fact has enabled many Chinese idioms to employ pithy cues to replace redundant narration,

3 In Chinese orthography, each character can represent one syllable. Therefore, the majority of Chinese idioms are four-syllable combinations, from the perspective of phonological structure.

4 The grammatical structure here refers narrowly to the structure that is determined by the grammatical categories of the two Chinese characters in a substructure rather than by the logical relations (e.g., cause and effect, condition, purpose, etc.) between the two substructures. In a Chinese idiom, for example, *long fei feng wu* (龙飞凤舞, dragons flying and phoenixes dancing; the flamboyant style in calligraphy), the double substructures are both in a N+V construction; in the same sense, the two substructures in *shou zhu dai tu* (守株待兔, stand by a tree stump to wait for a hare to dash itself against it; trust foolishly to chance and luck) are both in a V+N construction. Although the second substructure *dai tu* (wait a hare) serves actually as the purpose of the first substructure *shou zhu* (stand by a tree stump), we still regard them, according to the surface grammatical form, as identical in terms of the grammatical structure. This view is slightly different from that of Sun (1989: 154), who believed that the two grammatical structures in the very examples are not parallel with each other due to the imbalance of semantic distribution.

interpretation, and evaluation (Zhang, 2003: 68). Origins of Chinese idioms have been summarized as follows: some have originated in the descriptions of fairy tales, fables, or historical events; some have been extracted or trimmed, fully or partially, from ancient authoritative works; some transformed from proverbs (Sun, 1989: 93–102). Influential discourses delivered by eminent figures are another important source, e.g. *you di fang shi* (有的放矢, shoot the arrow at the target; do sth. with a definite purpose in mind).⁵ In general, most Chinese idioms are of classic elegance. Though sometimes overlooked, it is another strong national flavor borne by Chinese idioms (Zhou, 1994, 1997). Some Chinese idioms newly created and well accepted in modern contexts are merely imitations of those linguistic styles reflected by the archaic Chinese, maintaining mostly graceful traces in both form and content. Accordingly, quite different from the typical association of idioms in some other languages with relatively informal registers (Nunberg et al., 1994: 493), Chinese idioms are frequently used in both written and colloquial discourses, appealing to refined taste.

Chinese phraseologists have all along set great store in research on Chinese idiom semantics. However, some studies have focused mainly on semantic relevance between idioms (Xiang, 1985), or drawing an analogy between an idiom's meaning in ancient times and that in a modern context (Liu, 1985). Compared with these studies, detailed analyses of the internal semantic structure of Chinese idioms carried out by Wang (1983, 1990) and Sun (1989) enlighten us as to a new criterion for classifying Chinese idioms.

Based on the semantic associations between different characters in Chinese idioms, Wang (1983, 1990) divided most Chinese idioms into three categories, i.e. combined idioms, synthesized idioms, and blending idioms. In a combined idiom, such as *bu yue'er tong* (不约而同, take the same action without any previous consultation), the idiomatic meaning is roughly assembled by the characters' meanings, though the combination of them does not allow free collocation. But in a synthesized idiom, such as *gua shu di luo* (瓜熟蒂落, a melon falls off its stem when it is ripe; everything comes easy at the right time), these four characters have assumed potential meanings, which are amenable to the image of the literal meaning but no

5 This idiomatic expression appeared first in *Rectify the Party's Style of Work* (《整顿党的作风》), a famous speech delivered by the late Chairman Mao Zedong (1893–1976) at the opening of the Party School of the Central Committee of the Communist Party of China on February 1, 1942. It has been included in the *Selected Works of Mao Zedong* (《毛泽东选集》), Vol. III.

longer exist outside the idiom. With regard to a blending idiom, such as *meng bi sheng hua* (梦笔生花, dream about the blooming of one's writing brush; inspired overflow of literary talents), the idiomatic meaning cannot be directly derived from a set of mappings from meanings of its characters unless by resorting to an etymological analysis.⁶

Sun (1989: 119–123) put forward three types of meanings that belong to three levels of representation: (a) the literal meaning on the surface level, (b) the etymological meaning on the diachronic level, and (c) the idiomatic meaning on the synchronic level. For a typical Chinese idiom, the literal meaning is derived literally from that of its four constituent characters and the way in which they are combined. The etymological meaning refers to the meaning that depends upon a certain context when this idiom, still as a freely composed linguistic construction, was treated as an idiomatic expression for the first time. Usually this meaning has gone through several changes in the course of time. The idiomatic meaning, as it itself suggests, is the stipulated meaning that directly performs the communicative function in daily language. In many cases, these three levels do not overlap with each other. Instead, it is the complex relationships among the different levels of representation that constitute facets of the semantic structure of Chinese idioms. In terms of idiom representation, the relationship between (b) and (c) plays less of a role than that between (a) and (c), in that the precise etymology of many Chinese idioms has been largely forgotten in the long course of lexicalization. In other words, when using a Chinese idiom, proficient speakers may not necessarily perceive its true etymological basis, while they would always have access to the other two levels.

Compositionality refers to the claim that the constituents of idioms “carry identifiable parts of their idiomatic meanings” (Nunberg et al., 1994). According to this view, idiomatic meanings of some idioms can be systematically analyzed into parts that have distinct correspondence with meanings of their individual constituents. This dimension is in agreement with the compositional hypotheses that postulated the existence of certain metaphorical rather than arbitrary relations between the meanings of an

⁶ As recorded in *Anecdotes in the period of Kaiyuan and Tianbao* [《开元天宝遗事》; Kaiyuan (713–741) and Tianbao (742–756) are both titles of the reign of Li Longji (李隆基, 685–762, the 6th emperor of the Tang Dynasty, 618–907)] written by Wang Renyu (王仁裕) during the Five Dynasties (907–960). In the history of ancient China, Li Bai (701–762, one of the most famous poets in the Tang Dynasty) dreamt that his writing brush was blossoming one night in his boyhood. Years later, he became a poet of overflowing brilliance.

idiom's component words and the idiom's overall idiomatic meaning (Zhang, 2003). In other words, literal word meanings of idioms can be variably mapped onto components of their idiomatic meanings. In *shui dao qu cheng* (水到渠成, where water flows, a channel is formed; when conditions are ripe, success is assured), for example, the four characters respectively correspond to the relevant elements in the idiomatic meaning. A central hypothesis pursued in the present paper is that Chinese idioms should be attributed the dimension of compositionality, which is part of their mental representation. Now, having established a research background for compositionality, we are now in a position to classify Chinese idioms on the basis of this concept and to try to verify the classification in Cognitive Linguistic terms and rating studies.

On the basis of my own observation and intuition of a large number of Chinese idioms, I decided to narrow the focus of my case study to those having a double V+N grammatical structure. Two reasons jointly justify the typicality of this group of Chinese idioms: first and foremost, most four-character Chinese idioms feature the two-plus-two grammatical structure in which the double V+N is qualified to be a representative (Liu & Xing, 2000); second, verbal idioms with the V+NP structure (e.g., *spill the beans*) are in the absolute majority in English and are used as linguistic materials in a lot of phraseological literature. This case study can therefore constitute a heuristic basis for comparative studies between idioms in other languages and those in Chinese.

Concise in surface form, the internal semantic structure of Chinese idioms is yet a tough nut to crack. This should be attributed largely to the multidimensional nature of idiom semantics. Several scholars hold that the meanings of idioms “typically involve a conflation of social, political, contextual, attitudinal, and emotional factors” (Van Lancker Sidtis, 2006). Through long years of interactions with various factors, abstruse meanings have been gradually and deeply condensed into stereotyped forms of Chinese idioms. Nunberg et al. (1994: 493) believed that the only obligatory property for the term “idiom” is its conventionality. Sharing this opinion, Langlotz (2006: 3) claimed “idioms are linguistic constructions that have gone through a sociolinguistic process of conventionalization”. More of the same, Chinese idioms do not have their core meanings well established in a short period. When encountering familiar Chinese idioms, proficient Chinese speakers will have an implicit preference for these idioms' stipulated meanings, i.e. the conceptual meanings (Leech, 1981: 23) since there has been tacit agreement in their minds on the conventionalized form-meaning association. No one is

compelled to conform to this linguistic regularity, but the force of convention often makes the already established idiomatic meanings unavailable to language learners who can only understand language by grammatical rules. To take an example, *yi hua jie mu* (移花接木, graft one twig on another; stealthily substitute one thing for another) is likely to confuse some beginners in Chinese, who would probably attempt to understand this Chinese idiom through a literal scenario acquired purely from knowledge about gardening activities. It should be reminded that a lot of Chinese idioms can be understood almost completely at the literal level, e.g. *jie tan xiang yi* (街谈巷议, street gossip; public opinion). The “public opinion” is merely an extended meaning based upon its literal meaning (Ma, 1985: 238). Other than conceptual meanings, many Chinese idioms are also rich in social and affective meanings, corresponding to *Proverbiality* and *Affect* summarized by Nunberg and his colleagues (1994: 493).

In a word, Chinese four-character idioms set a consummate example in the large family of idioms across the world, not only in their unique linguistic form and tasteful expression, but more importantly, in their protean internal semantic relations hidden behind simple appearances. These features jointly present Chinese idioms as a topic of crucial value to be included in both theoretical discussion and empirical research.

2 Previous Studies on Compositionality of Idioms

Compared with scant research on compositionality of Chinese idioms, scholars in Western countries have been riveted by the same linguistic phenomena. One of the most representative and influential proposals set forth by early linguists to explain the syntactic inflexibility of idioms is perhaps Fraser’s “frozenness hierarchy” (Fraser, 1970), which argues that all idioms range from those formulaic expressions that can undergo almost all grammatical transformations without losing idiomaticity recognition (e.g., *lay down the law*) to those idiomatic expressions that cannot afford even the slightest grammatical transformation, e.g., inflection, without disrupting their stipulated idiomatic meanings (e.g., *kick the bucket*). This proposal implies that all idioms belong to a category of linguistic units that behave similarly according to their own syntactic rules, but it does not provide an explanation for why certain idiomatic expressions are deficient in

grammatical variation while some others are not. Hence it remains a weak argument.

In sharp contrast to prevailing syntax-based explanations for a lot of idiosyncratic grammatical phenomena shown by idioms, Nunberg (1978) first suggested that the syntactic idiosyncrasy of idioms can be explained at least partially in terms of their semantic properties. Nunberg regarded idioms as combining items and asserted that the likelihood of an idiom's syntactic flexibility pertains in large part to whether it is possible to decompose its idiomatic meaning into parts that bear some correspondence to the constituent parts of this idiom. This idea was also recognized in Langacker's theoretical framework *Cognitive Grammar* (1987, 1991): the semantic pole of an idiom constitutes a complex scene (i.e. literal scene and target scene) that corresponds to bipartite conceptualization (cf. Langacker, 1987: 92), in which the target conceptualization is construed against conceptual scaffoldings accrued by the literal conceptualization.⁷ Importantly, the meaning of an idiom was defined as “including not only its composite semantic structure but the compositional path through which that structure is assembled [...]” (Langacker, 1991: 133).

By means of some decomposition rating studies, some psycholinguists represented by Gibbs (Gibbs & Nayak, 1989; Gibbs et al., 1989) further demonstrated that native speakers are intuitively aware of the distinctions among idioms of different types. Reliable intuition is a major determinant of an idiom's relative idiosyncratic syntactic behavior: the more an idiom is regarded as decomposable, the more likely it is to be syntactically flexible (Gibbs & Nayak, 1989; Gibbs & O'Brien, 1990). To take a step forward, these phraseologists developed the *Idiom Decomposition Hypothesis* and therein proposed the notion of semantic compositionality. Furthermore, it was assumed that access to idiomatic meanings of idioms differing in compositionality can be realized through different processes (Gibbs, Nayak, & Cutting, 1989). On the one hand, the retrieval of stipulated figurative meanings of nondecomposable idioms depends largely on holistic recognition of linguistic forms, and thus comes directly from long-term memory. On the other hand, meaning access to decomposable idioms

⁷ In Langacker's terms, the fundamental unit in a grammar system is form-meaning pairing (e.g., an idiom) known as “symbolic unit”. The symbolic unit has two poles, i.e. a semantic pole (i.e. its meaning) and a phonological pole (i.e. its pronunciation). The semantic pole of a linguistic item corresponds to a concept whereas the phonological pole to the sound string that realizes it.

requires a process somewhat akin to that of understanding literal expressions: semantic representations of all decomposed parts are retrieved from the long-term memory and are combined with each other by virtue of bottom-up syntactic parsing.

In a series of studies into reading time (Gibbs, Nayak, & Cutting, 1989), it was found that college students took significantly less time to access idiomatic meanings of decomposable idioms, both normally and abnormally, than they did under the condition of literal control phrases, whereas nondecomposable idioms took longer to be processed. These results are reasonably in support of the claim that a compositional analysis is involved in idiom processing. In addition, Gibbs (1987, 1991) investigated the effects of compositionality on children's comprehension of idioms and repudiated the traditional presumption that children's learning of idioms depends greatly upon an inculcated association of a given word sequence with an arbitrary figurative meaning (Geeraerts & Cuyckens, 2007: 712). In contrast, it showed that children understand decomposable idioms much better than they understand nondecomposable idiomatic phrases, and their comprehension of the latter type improves with the increase of age. It seems that many children also attempt to do some compositional analysis when asked to understand idioms (Gibbs, 1991). Moreover, it was revealed by an eye tracking experiment (Titone & Connine, 1999) that reading rates for nondecomposable idioms were quicker when the idioms preceded a sentential context (either literal-biased or figurative-biased) than when the context preceded the idioms. But no such differences were reported for the decomposable idioms. The delay of reading time for nondecomposable idioms in a context was interpreted as indicating difficulty in integrating a disparity between the literal and idiomatic meanings in these idioms, only one of which was contextually appropriate. The disparity between the two planes of meanings in decomposable idioms could be bridged much more easily in contexts, due to their inherent semantic relevance. The psychological representation of compositionality in processing idioms was specifically explored in a more recent study (Caillies & Butcher, 2007), in which some French undergraduates were asked to read French sentences respectively containing decomposable idioms, nondecomposable idioms, and literal expressions, and then perform a lexical decision task. Reaction times (RTs) were measured to assess the time course of activation for target idioms' figurative meanings: meanings of decomposable idioms were activated sooner than those of nondecomposable idioms. This result provides additional support for the *Idiom Decomposition Hypothesis*, i.e., access to

idiomatic meaning should be seen as a function of the potential compositionality of the given idiom.

3 Classification of English Idioms by Compositionality

Revising the single semantic-chunk view of idioms, phraseologists postulated various taxonomies to refine the semantic characterization of idiomaticity. Despite some minor differences, they share a sorting criterion by appealing to the internal semantics of idioms, or specifically, the contribution of literal meanings of constituent words in idioms to their stipulated meanings.

Nunberg (1978) arranged English idioms into three categories: (a) nondecomposable idioms include phrases such as *kick the bucket* in which idiomatic meanings can hardly be derived in a compositional manner from those constituent parts comprising the word sequence; (b) abnormally decomposable idioms are phrases such as *spill the beans* in which the referents of an idiom's constituent parts can be identified metaphorically (e.g., a metaphorical relation between *spill* and “divulge” in this idiom); (c) normally decomposable idioms are phrases such as *pop the question* (proposal marriage) in which some constituents of an idiom are used almost literally (e.g., *question* here refers to a specific question, i.e. *Will you marry me?*).

In accordance with different qualities of the relationship between literal and idiomatic meanings of idioms, Cutler (1982) claimed that idioms in English range between two types: one is with transparent patterns of semantic extension, such as *grasp the nettle* (tackle the problem); the other is highly opaque in semantic links between these two levels, such as *red herring* (a less important fact to take people's attention away from important points).

English idioms were grouped into another three classes as opaque, transparent, and quasi-metaphorical (Cacciari & Glucksberg, 1991; Glucksberg, 1993). Akin to nondecomposable idioms, opaque idioms refer to phrases (e.g., *kick the bucket*) characterized by constraints on derivation of idiomatic meanings from literal interpretations through a compositional inference. Likewise, transparent idioms are phrases (e.g., *spill the beans*) similar to abnormally decomposable idioms, in which native speakers have intuition of a direct mapping from literal meanings of the component words

to idiomatic meaning constituents. Quasi-metaphorical idioms are phrases like *carry coal to Newcastle* (take sth. to a place where there is already plenty available) in which the overall literal meanings metaphorically maps onto their idiomatic meanings via allusional contents. For idioms of this type, there exists a substantial overlap between compositionality and transparency.

To simplify the previous classification of idioms, Nunberg et al. (1994) reiterated the existence of semantically compositional idioms and made a dichotomy between idiomatically combining expressions (also called as idiomatic combinations) and idiomatic phrases. The former refers to idioms whose idiomatic meanings can be distributed across their constituent parts, such as *pull strings* (exploit personal connections). The latter refers to idioms whose idiomatic meanings cannot be distributed across their component parts, i.e. semantically decomposable, such as *kick the bucket*.

Meanwhile, it is worth noting that all the above proposals of idiom taxonomies have been exemplified with a limited number of idioms. Given the pervasive use of idioms in everyday language, it is more reasonable to postulate that idioms actually lie along a continuum of compositionality, where highly decomposable and nondecomposable idioms represent the two poles. But for the sake of both qualitative and quantitative studies, phraseologists have had to make idioms fall into several main types, with some indeterminate cases in between.

In what follows, I present a systematic analysis of compositionality of Chinese four-character idioms within the framework of Cognitive Linguistics, which allows a classification of the idioms into prototypical categories. On this basis, I conduct rating studies on a relatively large number of idioms to see if the empirical findings support or disconfirm my theoretical argument.

4 Idiomatic Activation Set: A Cognitive Linguistic Model for Idiom Classification

As posited in section 1, internal semantic structures of Chinese idioms are diverse, with varying degrees of compositionality. The diversity inspires us to account for this classification criterion of Chinese idioms in a framework for idiom representation that can adequately handle semantic heterogeneity of Chinese idioms by way of regarding them as complex mental representations with a potential of being cognitively unfolded. The Idiomatic Activation-Set put forth by Langlotz (2006) is such a model designed to adapt the linguistic

phenomenon of idioms to the enterprise of Cognitive Linguistics and capture the intricate cognitive architecture of meaning construction and grammatical organization in idiom comprehension.

In accordance with Langacker's view of grammatical composition, the idiomatic constructions are "a complex of semantic and symbolic relationships that have become conventionalized and have coalesced into an established configuration" (1987: 25). That is, an idiom can be recognized as a unit within which rich conceptual knowledge has been encapsulated. Compatible with Langacker's cognitive network of linguistic units that could be activated for coding, the Idiomatic Activation-Set is adopted to refer to the mental network that can be potentially activated in speakers' minds in idiom use. It consists of a variety of symbolic and semantic substructures that are immanently associated with an idiom. It is the different activation strength of the substructures that shapes the characteristic heterogeneity in semantic structure of idioms. An Idiomatic Activation-Set is a complex mental configuration which "can be projected onto multidimensional cognitive stimuli to group and encode them in an idiomatic format" (Langlotz, 2006: 95). When such a configuration is activated in the network, all its substructures can be co-activated, enabling speakers to perceive the constructional complexity of the corresponding idiom. Consequently, the mental status of an idiomatic construction is not a holophrastic entity stored in the mental lexicon, but rather a complex symbolic unit with a composite structure. In the network of cognitive grammar, every idiomatic construction is represented by one specific node due to its idiosyncratic meaning, but meanwhile its composite structure makes it possible to integrate the meanings of its symbolic units, i.e. the idiomatic components in an entrenched construction. In the process, compositionality plays the greatest role in attributing the internal complexity of an idiom to the formal dimension of its proper idiomatic activation-set, i.e. compositeness.⁸ Therefore, it underlies recognizing idioms as lexically rich in processing. The components of an idiomatic construction function as "signposts" that coordinate both meaning construction and meaning construal in a usage-context (Langlotz, 2006: 90). For example, the idiom *grasp the nettle* evokes both the literal meaning "touch plants that sting" and the idiomatic

⁸ Compositeness has been regarded as a semiotic dimension of form in defining idiomatic constructions, referring to the formal complexity of a linguistic item, i.e. a multi-word unit (Langlotz, 2006: 3).

interpretation “tackle a problem”. In discussing the substructures corresponding to the components of idioms, Langacker states as follows:

Component substructures are seen as [the] scaffolding erected for the construction of a complex expression; once the complex structure is in place (established as a unit), the scaffolding is no longer essential and is eventually discarded. [...] In fact, though, a fixed expression appears capable of retaining some measure of analyzability almost indefinitely. At any one time, a language has many thousands of complex symbolic units whose values are enriched by the recognition of their components. We need not assume that the component substructures are accessed on every occasion when the composite structure is employed, or that when accessed they are necessarily activated at the same level of intensity as they are in a novel [linguistic] expression. However, only when the composite structure loses altogether its capacity to elicit the activation of its components can it be regarded as fully opaque and unanalyzable. (Langacker, 1987: 467–468)

According to this statement, the composite activation of linguistic components serves as a way to provide relevant access to a complex linguistic unit. That is, the whole Idiomatic Activation-Set related to an idiom is more than a mere sum of its component parts, but rather a composite configuration to be cognitively unfolded. With regard to an idiom, the greater the contribution of its component substructures is recognizable by language users, the higher degree of compositionality it has. Because of lexicalization, the scaffolding function of the immanent component substructures of an idiom is gradually reduced. As a result, the component substructures of an idiom are weakened or pruned from the Idiomatic Activation-Set and are not necessarily to be activated for idiom processing. The differences in activation strength of these substructures are correlated with the degree of opacity of different idioms. If the activation remains strong, it will be easy for people to perceive direct contribution given by idiom constituents to idiomatic meanings, like in *take advantage of*. But if the activation has been weakened to some extent, or even completely pruned, that some or all original traces of conceptual substructures can no longer be perceived, as in *red herring*, the semantic pole of the Idiomatic Activation-Set will be opaque and constrains the lexicogrammatical behavior of idioms.⁹

⁹ In the idiom *take advantage of*, the three words contribute in a direct way to the idiomatic meaning, and each of them can afford proper grammatical modifications. For example, it is grammatically acceptable to put adjectives such as “full” or “good” before “advantage”. But in the idiomatic meaning of *red herring*, we can hardly identify any parts related to the color “red” or the fish “herring”. The meanings of the two words contribute little to “a distracting

Proceeding from Langlotz's attempt to explain the representation of English idioms, we are now interested in transferring the Idiomatic Activation-Set to the justification of our taxonomy of Chinese idioms according to the dimension of compositionality and exploring what conceptual substructures of idioms are likely to be entrenched in the mental lexicon of native speakers of Mandarin Chinese.

5 A Cognitive Linguistic Approach to Classification of Chinese Four-character Idioms by Compositionality

In accordance with the Idiomatic Activation-Set framework, it is assumed that Chinese four-character idioms may be recognized as entrenched composite constructions, and their compositeness is the result of a syntagmatic integration of four symbolic units (see Figure 1).

When a Chinese idiom is used, the meanings of its four characters and the underlying constructional schema (i.e., double verbal schema) are supposed to be co-activated as substructures, which define the minimum cognitive structure of this Chinese idiom. In order to undertake a Cognitive Linguistic analysis of Chinese idiom compositionality, which depends on recognizing conceptual correspondence between literal meanings of individual characters and those elements profiled by idiomatic meanings, we should concentrate on specific qualities of all the conceptual substructures in an Idiomatic Activation-Set and the internal connections between them. Moreover, given that idioms are described as patterns of figuration in terms of semantic structure, some special attention should be paid to the linking ground between their literal and figurative meanings. As mentioned in section 2, the semantic pole of an Idiomatic Activation-Set (e.g. a Chinese idiom) constitutes a complex scene, in which the literal scene works as the conceptual scaffolding, which gives a more concrete cognitive model for the idiomatic meaning to be conceived (Langlotz, 2006: 108). If we can explain

thing". Meanwhile, the lexicogrammatical behavior of this idiom is highly constrained. For example, it is not grammatical to intensify the adjective "red" in this idiom with the adverb "very". In fact, the origin of this idiom is derived from the practice of using the scent of red herring in training hounds.

the differences of mental representation among the three categories of Chinese idioms by scrutinizing their substructures and motivating links on the basis of both scenes in their respective idiomatic activation-sets, our classification of Chinese idioms will be cognitively plausible. In what follows, an attempt will be made to analyze the idiomatic activation-sets for the three types of Chinese idioms differing in compositionality (see Tables 1, 2, and 3).

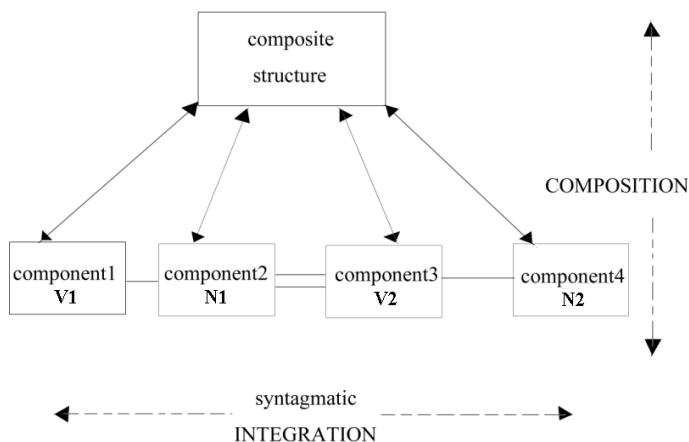


Figure 1: Model of a composite construction of Chinese idioms with the double V+N grammatical structure^a

^a Modified from Langlotz (2006: 88). The double line between the former two components and the latter two indicates the parallel constructional schema, i.e. the double V+N grammatical structure.

Table 1: Substructures of idiomatic activation-sets for Chinese idioms with high compositionality

IDIOMATIC ACTIVATION-SET for *yang jing xu rui* (养精蓄锐)

The vehicle — the literal meaning

(i) the composite literal meaning, the literal scene profiled by four characters:

[CONSERVE ENERGY AND STORE UP STRENGTH]

(ii) the conceptual domain in which the literal scene is embedded:

[conceptual scenario of ACCUMULATING MATERIALS]

(iii) the profiled conceptual substructure and base for the first character (养):

[AGENT CONSERVE PATIENT]

IDIOMATIC ACTIVATION-SET for *yang jing xu rui* (养精蓄锐)

- (iv) the profiled conceptual substructure and base for the second character (精):
[noun, ENERGY]
- (v) the profiled conceptual substructure and base for the third character (蓄):
[AGENT STORE UP PATIENT]
- (vi) the profiled conceptual substructure and base for the fourth character (锐):
[noun, STRENGTH]
- (vii) the constructional schema underlying the integration of the four characters:
[SBJ VERB OBJ + SBJ VERB OBJ, paratactic]

The target — the figurative meaning

- (i) the composite idiomatic meaning, the profiled target conceptualization:
[CONSERVE ENERGY AND STORE UP STRENGTH]
- (ii) the conceptual domain in which the idiomatic meaning is embedded:
[conceptual scenario of ACCUMULATING VIGOR]
- (iii) salient components of the idiomatic meaning:
[CONSERVE], [ENERGY], [STORE UP], [STRENGTH]

The motivating link: congruence shared by literal and figurative meanings

In comparing Tables 1–3, it can be seen that the function of providing conceptual scaffolding performed by substructures of idiomatic activation-sets differs greatly in the construal of these three types of Chinese idioms. The comparison reveals that all the designated conceptual substructures making up the Idiomatic Activation-Set of a Chinese idiom may be optionally activated when this idiom is used.

Table 2: Substructures of idiomatic activation-sets for Chinese idioms with medium compositionality

IDIOMATIC ACTIVATION-SET for *pao zhuan yin yu* (抛砖引玉)

The vehicle — the literal meaning

- (i) the composite literal meaning, the literal scene profiled by four characters:
[CAST A BRICK TO ATTRACT JADE]
- (ii) the conceptual domain in which the literal scene is embedded:
[conceptual scenario of EXCHANGING MATERIALS]
- (iii) the profiled conceptual substructure and base for the first character (抛):
[AGENT THROW OUT PATIENT]
- (iv) the profiled conceptual substructure and base for the second character (砖):
[noun, BRICK]
- (v) the profiled conceptual substructure and base for the third character (引):
[AGENT ATTRACT PATIENT]
- (vi) the profiled conceptual substructure and base for the fourth character (玉):
[noun, JADE]
- (vii) the constructional schema underlying the integration of the four characters:
[SBJ VERB OBJ + SBJ VERB OBJ, purpose]

The target — the figurative meaning

IDIOMATIC ACTIVATION-SET for *pao zhuan yin yu* (抛砖引玉)

(i) the composite idiomatic meaning, the profiled target conceptualization:

[OFFER COMMONPLACE REMARKS SO AS TO SEEK VALUABLE
OPINIONS]

(ii) the conceptual domain in which the idiomatic meaning is embedded:

[conceptual scenario of EXCHANGING VIEWS]

(iii) salient components of the idiomatic meaning:

[OFFER], [REMARK], [SEEK], [OPINION]

The motivating link: correspondence between literal and figurative meanings

In *yang jing xu rui* (养精蓄锐, conserve energy and store up strength), the substructures (Table 1) have been strongly activated to provide a shortcut linking different parts in cognitive structuring, though a portion of the substructures have been comparatively frozen when this idiom was lexicalized (e.g., the constructional schema has been largely fixed, not allowing an exchange of the positions where the two paratactic verbal schemas are located). All the composite parts at the literal level denote exactly the same as what is expressed at the figurative level, in that “conserve” and “store up” are equivalent to “accumulate”, and “energy” and “strength” are synonyms of “vigor”. These substructures are firmly bound by the Idiomatic Activation-Set underlying this Chinese idiom, and thus provide direct access to the target conceptualization. As a result, literal and figurative meanings of such Chinese idioms with high compositionality can be seen as an integral whole, as depicted in Figure 2.

Table 3: Substructures of idiomatic activation-sets for Chinese idioms with low compositionality

IDIOMATIC ACTIVATION-SET for *po fu chen zhou* (破釜沉舟)

The vehicle — the literal meaning

(i) the composite literal meaning, the literal scene profiled by four characters:

[BREAK THE CAULDRONS AND SINK THE BOATS]

(ii) the conceptual domain in which the literal scene is embedded:

[conceptual scenario of SABOTAGING MATERIALS]

(iii) the profiled conceptual substructure and base for the first character (破):

[AGENT SMASH PATIENT]

(iv) the profiled conceptual substructure and base for the second character (釜):

[noun, CAULDRON]

(v) the profiled conceptual substructure and base for the third character (沉):

[AGENT SINK PATIENT]

(vi) the profiled conceptual substructure and base for the fourth character (舟):

[noun, BOAT]

(vii) the constructional schema underlying the integration of the four characters:

IDIOMATIC ACTIVATION-SET for *po fu chen zhou* (破釜沉舟)

[SB] VERB OBJ + [SB] VERB OBJ, paratactic]

The target — the figurative meaning

(i) the composite idiomatic meaning, the profiled target conceptualization:

[EXPRESS DETERMINATION]

(ii) the conceptual domain in which the idiomatic meaning is embedded:

[conceptual scenario of DETERMINING TO DO STH]

(iii) salient components of the idiomatic meaning:

[EXPRESS], [DETERMINATION]

The motivating link: no mapping between literal and figurative meanings

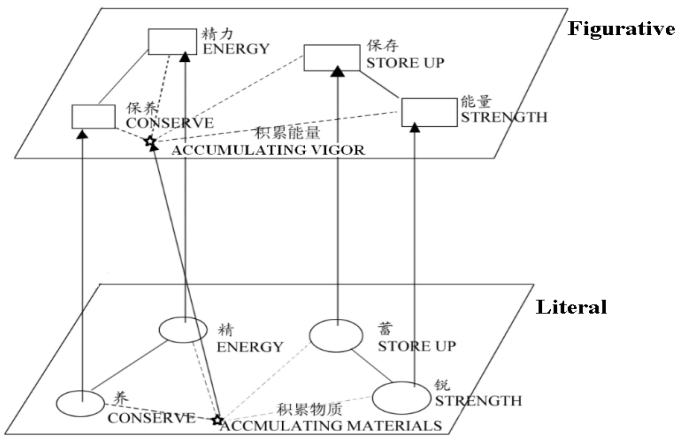


Figure 2: Model of Chinese idioms with a high degree of compositionality, represented by *yang jing xu rui*^b

^bThe solid line with an arrow indicates a direct contribution of literal meanings of individual characters to salient components of the figurative meaning.

In Chinese idioms with a high degree of compositionality such as *yang jing xu rui*, each of the four characters can be interpreted almost literally at the level of idiomatic meaning. The commonly used meanings of these idioms are derived in a bottom-up manner through a semantic integration at the literal level. Overlapping fully with each other in an entrenched linguistic construction, the two meaning levels may be identified as the same.

But for *pao zhuan yin yu* (抛砖引玉, cast a brick to attract jade; offer commonplace remarks to seek valuable opinions), two meanings cannot be absorbed into a single and consistent mental configuration (Table 2). Instead, most conceptual substructures of this Chinese idiom have been partially, but

not fully, pruned from the idiomatic activation-set, which results in a weaker linking schema between the vehicle and the target. In other words, although both conceptual domains of the vehicle and the target refer to “exchanging”, they are virtually asymptotic in their mental status. Insufficiently activated, those substructures of the literal scene have to be pushed to the background, and thus they provide only indirect access to the profiled target conceptualization. In Langacker’s terms, the relationship between the two layers of meanings “manifests the inherent asymmetry of a categorizing relationship: the background conception serves as the standard of comparison; the foregrounded target of categorization is the active structure” (Langacker, 1991: 133). The exchange between a “brick” and “jade” is not the actual referential meaning, but it functions as a conceptual resource to concretize that meaning and is evoked to build reference for target conceptualization to be construed. More importantly, such reference is built on the basis of correspondence between “throw out” and “offer”, “brick” and “commonplace remark”, “attract” and “seek”, “jade” and “valuable opinion”, as well as similar conceptual domains where the integration is embedded. Conceptual similarities between substructures in this Idiomatic Activation-Set facilitate to a certain degree the meaning construction of this Chinese idiom, as depicted in Figure 3.

As regards Chinese idioms with medium compositionality, what they truly refer to are not equal to what they literally mean, but rather are derived from some extent of semantic extension with a “distance” in between. Importantly, it is easy for language users to establish direct correspondence between meanings of the characters and some parts of the idiomatic meaning, despite that these characters may not be attributed such figurative meanings in a context outside this Chinese idiom. In *pao zhuan yin yu*, for instance, *zhuan* (brick) corresponds to “commonplace remarks” while *yu* (jade) to “valuable opinions”, but the two characters refer only to “brick” and “jade” respectively in everyday discourse. Their corresponding referents cease to have such special meanings if the two characters do not appear simultaneously in this idiomatic construction. In other words, the conceptual link between a character in a given idiom and the element profiled by the idiomatic meaning exists in the mental inference of native speakers with the aid of encyclopedic knowledge, rather than those entries in dictionaries.

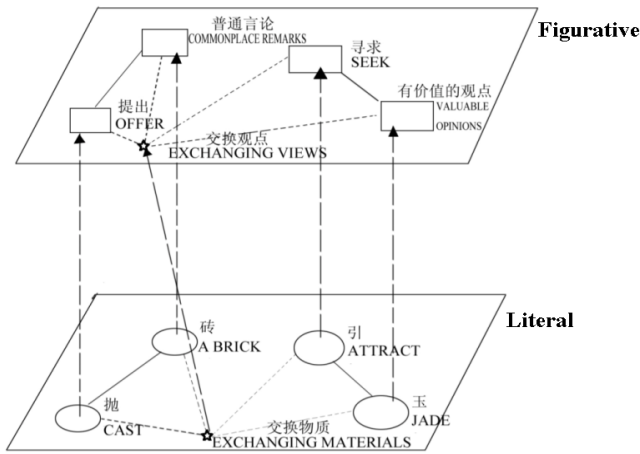


Figure 3: Model of Chinese idioms with a medium degree of compositionality, represented by *pao zhuan yin yu*^c

^cThe dotted line with an arrow indicates an indirect correspondence between literal meanings of characters and salient components of the figurative meaning.

In regard to *po fu chen zhou* (破釜沉舟, break the cauldrons and sink the boats; express determination), however, nearly all the substructures at the literal level have been completely cut off from the Idiomatic Activation-Set and deprived of the possibility of being activated, let alone establish perceptible correspondence between the parts in the vehicle and the target (Table 3).¹⁰ The conceptual substructures have coded two sabotage activities in the vehicle, while both of them lack intrinsic relevance with the target conceptualization and are in no way able to provide access to the conceptual scenario of “determination”. That is, the links between different conceptual substructures contained in the mental network of this idiom have been greatly reduced in cognitive salience. Therefore, the profiled literal scenario

10 During the last years of the Qin Dynasty (221–206 BC) in ancient China, Xiang Yu (项羽, 232–202 BC, the leader of the uprising that overthrew this dynasty) led his troops to rescue the State of Zhao (赵), which had been besieged by the army dispatched by the State of Qin (秦). Having crossed the Zhanghe River (漳水), Xiang ordered his soldiers to break all the cauldrons and sink all the boats so that all means of retreat were cut off and the soldiers had no other way but to advance and fight valiantly. Finally, the staunch determination to strive for victory helped them thoroughly trounce Qin’s army.

is no longer needed as the conceptual scaffolding to construe the meaning encoded in the target. If language users would like to reproduce the association from which the idiomatic interpretation was originally derived, they resort to other resources, such as the etymological basis of this idiom. Figure 4 diagrammatically presents the Idiomatic Activation-Set for this type of idiom.

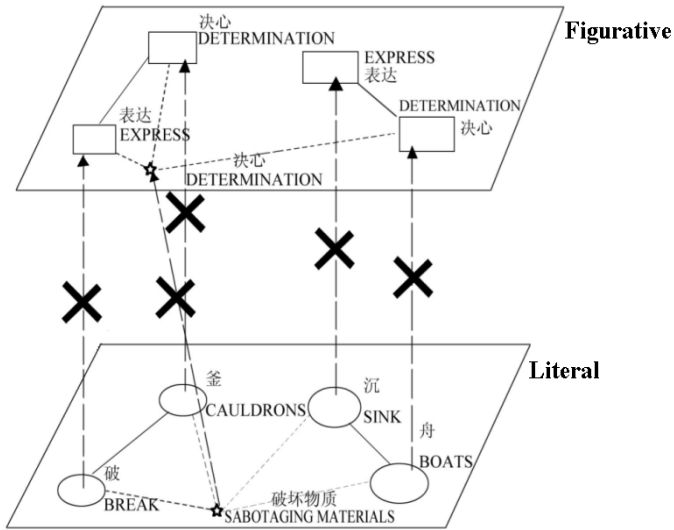


Figure 4: Model of Chinese idioms with a low degree of compositionality, represented by *po fu chen zhou*^d

^dThe dotted line with an arrow and a black cross indicates the non-existence of conceptual correspondence between meanings of characters at the literal level and salient components at the figurative level.

Quite differently, in the idiom ‘break the cauldrons and sink the boats’ it is hardly possible to be intuitively aware of any obvious contribution from the characters’ meanings to the overall target meaning, and thus *po fu chen zhou* is classified as a Chinese idiom with low compositionality. The conceptual disparity between the literal and figurative meanings of idioms in this class seems insurmountable, even with some purposive effort to infer what it really means by virtue of a compositional computation. Given that the meaning of “determination” cannot be easily distributed over the meanings of these four characters, we can say that this Chinese idiom is semantically

opaque. The two activities of sabotage described at the literal level cannot be mapped in any way onto the idiomatic meaning unless we are aware of the historical military allusion that lurks behind this Chinese idiom.

In fact, a good number of Chinese idioms use the most prominent four characters to represent an event or a situation behind which the dormant, implicit, and conventionalized metonymic mappings activate semantic frames in our mind and give rise to rich associations (Zhang, 2003: 88).

Taking account of the degree to which the meaning of a character can be perceived to contribute to the stipulated idiomatic meaning of a Chinese idiom, I hereby propose a three-grade hierarchy in which all Chinese idioms fall into three groups differing in terms of compositionality: Chinese idioms with a high/medium/low degree of compositionality. Compared with a mere dichotomy of all idioms into compositional and noncompositional categories (Titone & Connine, 1999), this trichotomy is conducive to a finely grained description of subtle differences in the gradual reduction of compositionality along a continuum.

However, once again, it should be recalled that the three Chinese idioms analyzed in Tables 1–3 and represented in Figures 2–4 are merely three marker points along a continuum, where different idioms occupy their own positions. In this sense, we can never draw a clear-cut line between different groups of Chinese idioms, in that the distinctions between them constitute what we could call “fuzzy boundaries”. However, we have every reason to choose some typical examples to generally represent corresponding prototypical categories and discuss the feasibility of the proposed idiom classification in a framework of Cognitive Linguistics, though it is to some degree beyond my introspection.

6 Rating Studies for Compositionality in Chinese Four-character Idioms

In order to avoid the subjective drawback of introspection in conjunction with theoretical analyses (Gibbs, 2007), a questionnaire survey was conducted to test the psychological reality of my theoretical arguments.

A dataset of 216 Chinese idioms with the double V+N grammatical structure were selected as the basis for constructing the linguistic stimuli for

the rating studies.¹¹ In the first written questionnaire of rating studies, 40 undergraduates were required to rate their familiarity with these Chinese idioms listed on a piece of paper through a 5-point scale ranging from 1 (*quite unfamiliar*) to 5 (*highly familiar*). Idioms scoring at least 4 by more than 95% of the subjects (i.e., an idiom with an average score ≥ 3.85) were singled out for the later studies. 146 idioms satisfying the inclusion criteria were sieved out and the selected idioms were all highly familiar. For literality, another group of 40 students (including 15 postgraduates) were asked to evaluate the plausibility of literal interpretations of the already selected Chinese idioms. In the third questionnaire survey, the dimension of compositionality was rated by a new group of 40 students. All the participants in the three questionnaire surveys were native speakers of Mandarin Chinese with at least two years of college education. These participants were given the 146 Chinese idioms paired with their refined literal interpretations in a randomized order. Again through a 5-point scale ranging from 1 (*not related*) to 5 (*very related*), the participants were requested to assess the degree to which these literal interpretations were semantically relevant to those commonly-used meanings of corresponding Chinese idioms, i.e., to what degree the idiomatic meanings of these idioms can be inferred from their literal interpretations.¹² The literal interpretations of the 146 idioms were created on the basis of the literal meanings provided by the *Xinhua Chinese Idiom Dictionary*. 40 informants were instructed to rate each pair as having high, medium, or low contribution of the literal meaning to the figurative idiomatic meaning. The results of the third questionnaire survey is as follows:

The figures in Table 4 show that Chinese idioms with different degrees of compositionality constitute a continuum. But for the sake of classification, two cutoff points were chosen so as to divide this continuum into three separate categories. 15 idioms with comparatively inconsistent ratings ($SD > 1.08$) and 23 idioms with scores between two parts were excluded as the marginal ones. In this way, all the Chinese idioms to be taken as linguistic stimuli in the subsequent ERP study fell into three categories that differ in compositionality (i.e., high, medium, and low). The average scores for the

11 The 216 Chinese idioms were randomly selected from *Xinhua Chinese Idiom Dictionary*. In the first rating study, these idioms were presented in a print-friendly manner on four A4 pages.

12 The participants in this questionnaire survey were presented only with the proper literal interpretations of these Chinese idioms, not including their commonly used meanings. Their ratings were derived solely from their own linguistic intuition.

linguistic stimuli with high, medium, and low compositionality were 4.57, 2.97, and 1.76 respectively. Table 4 shows that the highest mean score for rating compositionality is 4.9500 while the lowest 1.225. Taking the idioms with high compositionality for example, we find that idioms in this category do not enjoy the same status with the rating scores running from the highest to the lowest. The high scores represent the prototypical members of this category while the lowest the less prototypical ones. The third questionnaire survey suggests that the contribution of a literal scene to the figurative one within a complex scene of Idiomatic Activation-Set is a kind of degree without distinct demarcations between the three categories. It also clearly reveals that the categories classified according to compositionality are prototypical in nature.

Table 4: Compositionality indices of Chinese four-character idioms

Idiom	Mean	SD	Idiom	Mean	SD
聚精会神	4.9500	.22072	徇情枉法	4.1250	1.01748
立功赎罪	4.9500	.22072	闭门思过	4.0250	.73336
排忧解难	4.8500	.42667	倾家荡产	3.9750	1.16548
建功立业	4.8250	.38481	扶老携幼	3.7250	1.08575
丧权辱国	4.8250	.38481	销声匿迹	3.6750	1.09515
触景生情	4.8000	.56387	招兵买马	3.6000	.98189
忘恩负义	4.8000	.51640	废寝忘食	3.6000	1.03280
审时度势	4.7750	.53048	讳疾忌医	3.5250	.96044
养精蓄锐	4.7750	.47972	安营扎寨	3.5250	1.01242
知法犯法	4.7750	.42290	藏污纳垢	3.4250	.95776
改邪归正	4.7500	.54302	忍气吞声	3.4250	1.17424
违法乱纪	4.7500	.54302	量体裁衣	3.4250	.59431
出谋划策	4.7250	.55412	察言观色	3.4250	1.03497
妒贤嫉能	4.7000	.51640	抛砖引玉	3.3500	.97534
歌功颂德	4.7000	.56387	张灯结彩	3.3500	1.05125
劳民伤财	4.7000	.56387	饮水思源	3.2250	.73336
争名夺利	4.6750	.61550	乘风破浪	3.1500	.97534
弄虚作假	4.5500	.71432	引火烧身	3.1500	.73554
报仇雪恨	4.5000	.67937	束手待毙	3.1000	.87119
临危受命	4.5000	.81650	负荆请罪	3.1000	.84124
舍生取义	4.5000	.81650	闻风丧胆	3.0250	1.04973
戴罪立功	4.4750	.84694	丢盔弃甲	3.0000	.84732

Idiom	Mean	SD	Idiom	Mean	SD
贪赃枉法	4.4500	.78283	兴师动众	2.9750	1.12061
发号施令	4.4500	.95943	摩肩接踵	2.9250	.94428
屏气凝神	4.4000	.81019	腾云驾雾	2.9250	1.20655
救死扶伤	4.3750	.70484	顺藤摸瓜	2.8750	.60712
知书达礼	4.3750	.80662	昂首挺胸	2.8750	1.18078
怨天尤人	4.3750	.80662	翻箱倒柜	2.8750	1.04237
耀武扬威	4.3500	.69982	捶胸顿足	2.8750	.91111
居安思危	4.3250	.72986	揠苗助长	2.8500	.73554
除暴安良	4.3000	.85335	望梅止渴	2.8500	.80224
偷工减料	4.2750	.81610	杀鸡吓猴	2.8500	.53349
引经据典	4.2500	.86972	亡羊补牢	2.8250	.98417
顾名思义	4.2250	.91952	偃旗息鼓	2.8250	.84391
贪生怕死	4.2000	.85335	养虎遗患	2.8000	.72324
改朝换代	4.2000	.82275	隐姓埋名	2.8000	1.41784
斩草除根	2.8000	.85335	开天辟地	2.2000	1.04268
助纣为虐	2.8000	.72324	见缝插针	2.1750	1.00989
跋山涉水	2.7750	.86194	忍辱负重	2.1750	1.08338
披荆斩棘	2.7750	.97369	翻江倒海	2.1500	.86380
临崖勒马	2.7250	.67889	画龙点睛	2.1250	.93883
饮鸩止渴	2.7000	.88289	偷梁换柱	2.0750	.97106
垂帘听政	2.7000	1.13680	披星戴月	2.0500	.90441
卧薪尝胆	2.6750	.79703	开门见山	2.0250	.94699
抱薪救火	2.6750	.65584	缘木求鱼	2.0250	.91952
凿壁借光	2.6500	1.00128	煽风点火	2.0250	.99968
趁热打铁	2.6500	.86380	牵线搭桥	2.0250	.91952
指桑骂槐	2.6250	.70484	赴汤蹈火	1.9750	.86194
掩耳盗铃	2.5750	.78078	越俎代庖	1.9750	.89120
提心吊胆	2.5750	1.33757	穿针引线	1.9500	1.01147
悬梁刺股	2.5500	.98580	评头论足	1.9000	.90014
落井下石	2.5500	.81492	扬眉吐气	1.9000	1.05733
过河拆桥	2.5500	.81492	破釜沉舟	1.8750	.93883
立竿见影	2.5250	.93336	循规蹈矩	1.8750	1.04237
抓耳挠腮	2.5250	1.03744	走马观花	1.8250	.84391
守株待兔	2.5250	.96044	怜香惜玉	1.8000	.85335
衣锦还乡	2.5000	1.03775	捉襟见肘	1.7750	.89120
兴风作浪	2.5000	.96077	咬牙切齿	1.7750	.91952

Idiom	Mean	SD	Idiom	Mean	SD
看风使舵	2.4750	.96044	呕心沥血	1.6750	.94428
添砖加瓦	2.4750	.96044	拖泥带水	1.6750	.94428
画蛇添足	2.4750	.81610	洗心革面	1.6500	.83359
移花接木	2.4500	.90441	接风洗尘	1.6000	.77790
杀鸡取卵	2.4500	.98580	添油加醋	1.5500	.74936
买椟还珠	2.3500	1.07537	瞒天过海	1.5000	.71611
摩拳擦掌	2.3500	.94868	倾城倾国	1.5000	.78446
劈头盖脸	2.3500	1.21000	捕风捉影	1.4750	.75064
刻舟求剑	2.3250	.76418	登堂入室	1.4750	.71567
拨云见日	2.3250	.88831	斩钉截铁	1.4500	.74936
吹毛求疵	2.3000	.93918	请君入瓮	1.4000	.67178
寻根究底	2.2750	1.32021	寻花问柳	1.2500	.54302
借花献佛	2.2250	1.09749	争风吃醋	1.2500	.63043
打草惊蛇	2.2250	.89120	咬文嚼字	1.2500	.49355
趋炎附势	2.2000	1.09075	含沙射影	1.2250	.42290

7 Conclusion

I conclude this paper by emphasizing three points. First, the feasibility of compositionality as one criterion for classifying Chinese idioms has been well justified in the Cognitive Linguistic framework of the construct known as Idiomatic Activation-Set. Secondly, from the perspective of Cognitive Linguistics, it should be stressed that the true meaning of a Chinese idiom cannot be equated with a possible paraphrase given by an individual. Rather, it should be located in the conceptual structure, which underlies this paraphrase. Compositionality, in this sense, is an effect of conceptual structuring and cognitive construal and constitutes a continuum from high compositionality to low compositionality with no clear demarcations. Given the abstractness of target conceptualization of Chinese idioms, the personal analysis of how compositionality functions in the three specific examples, though qualified as a proof, is still not sufficiently convincing to capture subtle differences in the linguistic intuition of more Chinese idioms that differ in compositionality. Thirdly, the intuition of perceiving possible correspondence between concrete substructures designated by characters and abstract target conceptualization is captured and demonstrated by the

third questionnaire survey. Finally, it is hoped that this investigation has demonstrated that the classification of Chinese four-character idioms based on compositionality has psychological reality in the mind of native speakers of Mandarin Chinese, and sheds new light on our understanding of cognitive processes in language comprehension and particularly idiom comprehension.

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