British Journal of English Linguistics
Vol.8, No.5, pp.1-9, October 2020
Published by *ECRTD-UK*
Print ISSN: 2055-6063(Print), Online ISSN: 2055-6071(Online)

CLASSIFIERS OF ANIMALS IN MANDARIN AND ENGLISH: A SEMANTIC MAP MODEL APPROACH

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ABSTRACT: *Semantic Map Model serves as an effective tool for typological analysis of languages, has a practical meaning and feasibility. The temporary use of words as quantifiers of animals in both Mandarin Chinese and English reflects the commonalities and differences between two languages in terms of conceptual dimensions. Based on the semantic map model and quantifiers corpus, this study investigates into the collocations, cognitive mechanisms and mapping in mental space which play significant roles in the construction of semantic construals of classifiers of this type.*
KEYWORDS: Classifier, Semantic Map Model, Contrastive Analysis, Mandarin, English

INTRODUCTION

Semantic map model is established on the basis of cross-linguistic study with a focus on exploring the correlations among expressions of multiple forms. This analytical tool is devoted to discrepancies and commonalities between grammatical forms and functions, which has received much attention in the field of typological studies, and thus revealing a great potential for realizing feasibility of comparative studies in languages. Yet, there still exists a gap in application of this model to Mandarin Chinese which features varieties of grammatical forms and abundant variations. Therefore, such an approach is expected to enrich and extend Chinese language research. Furthermore, the semantic map model based analysis results would provide solid evidence for semantic mapping in mental space and contribute to language teaching and learning. For instance, semantic map model could be employed to examine language transfer and errors which result from differences and commonalities between a language learner's native language and target language, providing more convincing and robust evidence.

THEORETICAL FOUNDATION

As semantic map model is intended to find out the universal factors of restrictions in language as a tool for linguistic research, typological studies aim at analyzing the universal factors which impose influences through cross-linguistic comparisons. It is no coincidence that the same semantics and grammatical forms exist in different languages, which is largely motivated by the cognitive generality of language users.

Accordingly, semantic map model functions as presenting the commonness and individuality of languages, which is also named mental map. In spite of different scope defined by constructions in different languages, the same mapped conceptual space is the same in nature. The conceptual space represents the same cognitive inheritance of human beings, or brain configurations. Semantic map model is established to picture semantic correlations including similarities and discrepancies. The main hypothesis for theoretical construction is semantic connection. Conceptual space is the foundation of cognition since it is mapped with the secret configuration of human brains. Based on conceptual map, semantic map reveals semantic discrepancy and correlations. It has been agreed that semantics of any given language or constructions reflects a connected region. Chances are variants of different languages or dialects in historical periods could carve the map into parts. It is easy to operate working out a semantic map following a couple of steps, which start with discovering correspondences between the same linguistic form and different meanings or functions. Based on cross-linguistic comparisons, the arrangement forms that accord with the continuity of semantic map are summarized. This constitutes the foundation of conceptual space according to which different forms are reflected on a range of adjacent semantic nodes.

SEMANTIC MAP MODEL APPLIED TO MANDARIN RESEARCH

The theories and methods of the semantic map model have aroused interest in Chinese study and have exerted influence on specific case studies in Chinese language. A number of multi-functional grammar phenomena exist in Chinese language. The same linguistic form may be connected with a variety of functions and uses in the process of evolution. Also, there are discrepancies and correlations in dialects, thus calling for a direct analysis tool for investigation. Semantic map model enables the possibility of such an application to solving these problems. Wu and Zhang (2011) proposed the theoretical foundation, concepts, function and value as well as prospect in details, highlighting the contribution made by the semantic map model, for which Mandarin grammatical research could be brought into a broader picture of typological study in the world. Wu (2011) made use of the semantic map model to analyze multi-functional morphemes for the purpose of finding out the necessity and contingency of the origin, the relationship among a range of forms, and how the evolutionary path can be generalized according to the phenomenon of multi-functional morphemes. Undoubtedly, this is a very constructive attempt in cross-linguistic study.

Zhang (2010) introduced the origin and evolution of the semantic map model and suggest the unique mode of Mandarin Chinese research. Guo (2012) discussed semantic variations and evolution as well as constraints in the process of evolution. In a word, the phenomena of multi-functional grammar abound in Mandarin, and even the same linguistic form could develop along with quite different usages and functions, not to mention the correlations of dialects, thus calling for a direct analytical tool such as the semantic map model with practical significance.

CLASSIFIERS IN MANDARIN WITH A COGNITIVE FOCUS

There are 11 word categories in Mandarin Chinese which features the unique category of classifiers. In contrast, in most of other languages such as English, there are expressions describing quantities with the similar functions and properties but the number, classes, and usages are much less than those in Mandarin. The overall performances of English quantity or measure expressions contradicts Mandarin counterparts. The number of animal quantifiers in Mandarin is very small, while English animal classifiers are abundant and flexible in usage and modality. Previous scholars have conducted in-depth and extensive research on Chinese-English measure words or expressions. However, the comparative study of Chinese and English animal classifiers from the perspective of semantic map model is still lacking. This study examined the Chinese and English animal classifiers and their relationship: there is a cognitive convergence of metaphorical and metonymy between modified nouns.

We find that Chinese and English animal classifiers focus metaphorically in two manners, i.e., with an internal focus and with an external focus. External focus refers to that the cognitive focus of the metaphorical agent is on the external characteristics of the target domain, which then matches the source domain with a corresponding one. Features are mapped to the target domain. When we look at the world, we tend to think subjectively or intuitively. In the expression of object classifiers, animal measure expressions are the source domain and animal nouns are the target domain. The cognitive focus on the process of metaphor construction lies in the communicator's understanding of animal classifiers, which exerts influences on selection of similarities with animal nouns, using the subconscious of the interpreter. That is, to make use of familiar concepts to represent unfamiliar concepts, which constitutes the basis of domain mapping. For example, the classifier of *feng* of a camel originally meant “a peak” which is currently associated with the a dorsal of a camel in this measure expression in Mandarin.

Focusing on the highly prominent parts, the image features of the source domain are mapped to the target domain thus representing the described animal. The reason why the object can get the cognitive focus of the mind lies in the fact that one of its a certain external feature stands out. For instance, the quantifier *tiao* in "a snake". It is originally used to quantify a slender branch of a tree and to weigh long objects.The *yi tiao sheng* (“a snake”) is metaphorically understood as a long animal due to the iconicity between the source domain and the target domain. While focusing on cognitive perspective on the external shape of the snake, one could use the metaphorical quantifier "bar" to represent the compatible cognitive domain such as snakes.

DISCUSSION: ANIMAL CLASSIFIERS FROM THE PERSPECTIVE OF THE SEMANTIC MAP MODEL

According to the basic ideas of the semantic map model, we could sketch the multi-functional grammatical phenomenon and clearly present the mapping relationship between form and meanings with the mental map. In Mandarin, there are quite a few words which take on both word categories of nouns and classifiers. The function of the type of animal classifiers could be further divided into two types: one is the relatively fixed usage which has been fossilized during the process of grammaticalization, such as *yi tiao she* (“a snake”), *yi zhi ya* (“a duck”), *yi tou niu* (“a cow”), the other is the type of nouns which function as classifiers simultaneously and temporarily, such as *yi feng tuo* (“a camel”)， *yi wei yu* (“a fish”). Concerning the second type of cases, i.e., nouns which bear the category of classifiers, discussions could be held from the aspects of semantic analysis, cognition and metaphors, which partially pertain to comparative study of animal classifiers in Mandarin and other languages. Based on semantic analysis and induction, instances of animal classifiers in Mandarin could be listed as below; all instances are marked with plus or minus sign which suggests the existence of a certain meaning or not.

Print ISSN: 2055-6063(Print), Online ISSN: 2055-6071(Online)

Table 1: Representations of semantic elements in nouns as animal classifiers

Nominal classifiers of animals	Accommodated	Full of	Subjective	Contact	Extensive	Concrete
Feng ("peak"): *yi feng luotuo* ("a camel")				+	+	+/-
Wei ("tail"): *yi wei yu* ("a fish")				+	+	+/-
Yu ("feather"): *yi yu niao* ("a bird")				+	+	+/-
Shou ("head"): *yi shou yu* ("a little fish")				+	+	+/-
Mei ("coin"): *yi mei xiaoyu* ("a little fish")				+	+	-
Fan ("piece"): *san fan ganyu* ("three pieces of dried fish")				+	+	-
Wo ("nest"): *yi wo ji* ("a nest of chicks")	+	+	+/-	+		+
Kuang ("basket"): *yi kuang xia* ("a basket of prawns")	+	+	+/-	+		+
Cang ("cabin"): *yi cang yu* ("a cabin of fishes")	+	+	+/-	+		+

The above Table 1 has shown the distribution of semantic nodes of some nouns which are used as animal classifiers in Mandarin, and the mapping relationship could be visualized in the conceptual space.

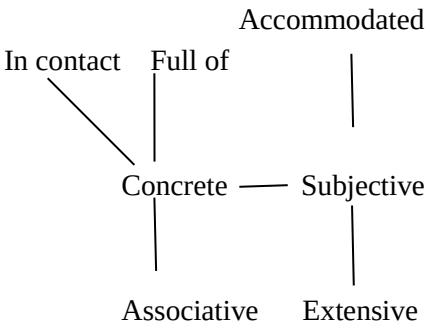

Figure 1: Visualization of semantic items in nouns as animal classifiers

Following the spirit of the consistency of the semantic map model, the expressive forms and semantic distributions of the dual identity of nouns as animal classifiers in Mandarin are meant to be consistent. If the semantic maps of some animal nominal classifiers overlay, one could draw the following diagram which is in line with the hypothesis of consistent mapping.

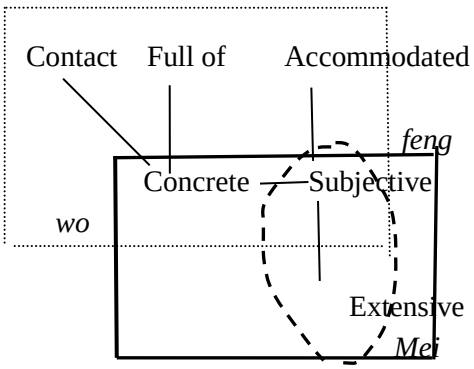

Figure 2: Semantic map of nominal animal classifiers of *wo* ("nest"), *feng* ("peak"), and *mei* ("coin")

The above diagram has presented the distribution of some instances of nominal animal classifiers in mental space. Different kinds and styles of lines are used to sketch the different groups of semantic clusters. The mapped space of each instance is consistent and complete, while the overlapped space signals the same semantics shared by different forms of nominal classifiers. The most contribution made by the semantic map model is to visualize the internal multi-functional grammatical essence by means of direct diagrams. In this process, some linguistic phenomenon which has not been discovered in the past research are likely to appear and provide more illuminations in terms of making more linguistic rules explicit.

The semantic map model, as an analytical tool has practical implications in cross-linguistic comparative study with the aim of exploring the commonalities and discrepancies of languages, and thus providing more explanative evidence. For the convenience of comparison, a couple of animal classifiers counterpart in English are taken as examples for illustration. In the English phrase of *a train of camels*, the metaphor is used to address the external features of camels which are lined neatly like a train in the desert. Similar instances could be found in a *cloud of locusts.* It has been noticed that visualization is the prerequisite of objects being highlighted, which underlines the fact that such kind of animal classifiers cannot be adopted if the foci of observers is not on the shape or appearance of animals. This characteristic can be linked to one of the semantic features, i.e., extension or association, which is found in Figure 3 compared with Mandarin counterparts. In some other animal classifiers in English, like *a parliament of owls*, instead, the internal feature of wisdom is shared both the source and target domain. In more cases like *a head of cattle*, the most salient part, the head, could represent the whole influenced by the mechanism of metonymy and a set of cognitive operations. The same principle is applied to examples like *a down of hares.* Also, the cognitive foci can be put to the containers which are associated with the places where the animals live, such as *a nest of mice*. To summarize the above discussions of English cases, the mental map could be represented as below:

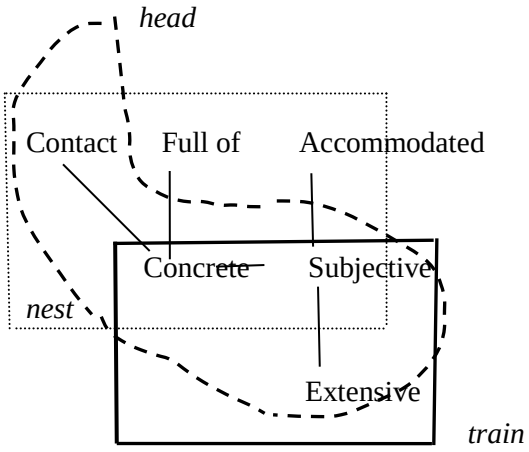

Figure 3: Semantic map of nominal animal classifiers of *train, head* and *nest*

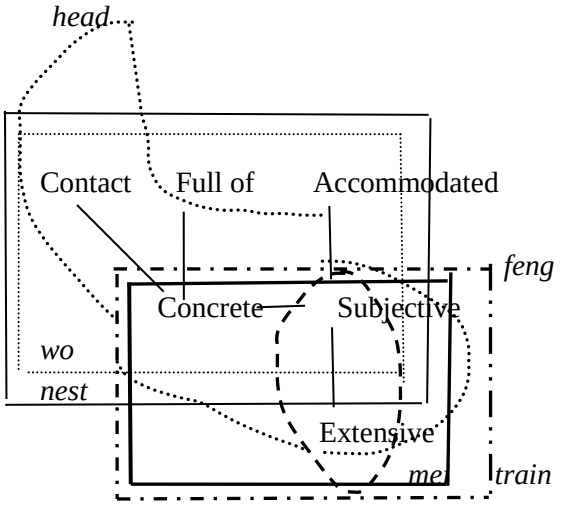

Figure 4：Semantic map of nominal animal classifiers of *wo* ("nest"), *feng* ("peak"), *mei* ("coin"), vs. *train, head,* and *nest*

More interestingly, the above Figure 4 can be established as the composition of Figure 2 and 3, showing the distribution of some cases of animal classifiers in both Mandarin and English in the mental space according to the semantic features. As to two pairings of wo-*nest* and mei-*train*, their semantic distributions ar overlapped, while tou and *head* have different distributions. Due to the limited space, this paper does not dwell on more cases for comparison; the examples have revealed the great potential for more research in depth.

IMPLICATIONS FOR LANGUAGE TEACHING

The commonalities and discrepancies shown by comparative studies of Mandarin and English could present different logical and cognitive modes, therefore helping language mentors predict the possible errors and difficulties and work out feasible solutions to deal with them. The transfer from the first language could not be negative but also positive, such as the overlapped parts in the above diagram 3; for the positive ones, language mentors are encouraged to make good use of them. Moreover, the commonalities shared by the languages can help predict and observe the sequence of language acquisition and prepare the internal logical relationship which could be accepted by the learners in the most possible manner.

CONCLUSION AND SUGGESTIONS

Based on the cognitive generality, the foundation of the semantic map model is the mental construction. Multiple methods including metaphorical and grammatical analyses could be used to draw the semantic map. Despite the achievements by so far, questions such as how to ascertain semantic nodes, how to deal with frequencies, and variation of mental spaces due to language change. From the perspective of study on Mandarin, the future research could be conducted in the aspects of dialects,

comparative study of Mandarin and foreign languages, combination of diachrony and synchrony based on the semantic map model. Meanwhile, the findings out of the linguistic studies on Mandarin could be converted to resources for Mandarin teaching to the second language learners.

References

Bybee，Joan．(2010). Language，Usage and Cognition． Cambridge: Cambridge University Press．

Guo, Rui. (2012). Conceptual space and semantic map: restrictions and path of language variation and evolution. *Teaching Chinese as foreign language* 1:96-130.

Haspelmath，Martin．(2003). The Geometry of Grammatical Meaning Semantic Maps and Crosslinguistic Comparison． In Tomasello，M. (eds,) *The New Psychology of Language*, Mahwah: Lawrence Erlbaum Associates, pp. 211-243．

Pan, Qiuping, and Zhang, Min. (2017). Semantic map model and Chinese study of multi-functional forms. *Contemporary linguistics* 4: 510-545.

Sun, Wenfang. (2012). Study of second language acquisition based on linguistic typology. *Language teaching and research* 2: 1-8.

Wang, Ruijing. (2010). Semantic map model: introduction to theories and development. *Collections of linguistic research* 42. Beijing: Commercial Press.

Wu, Fuxiang. (2011). Multi-functional morphemes and semantic map model. *Linguistic research* 1: 25-41.

Wu, Fuxiang. (2014). Semantic map and grammaticalization. *Chinese teaching worldwide* 1:3-17.

Wu, Fuxiang, and Zhang, Ding. (2011). Semantic model: new perspectives on linguistic typology.
Contemporary Linguistics 4: 336-350.

Wu, Sijing and Zhang, Jingxin. (2018). Review on controversy of semantic and pragmatics. Journal of foreign languages studies 3:7-14.

Zhang, Min. (2010). Semantic Map Model: Principles, practice and the application in study of Mandarin multi-functional grammatical forms. *Collections of linguistics* 42. Beijing: Commercial Press.