How to Apply Cross-linguistic Semasiological Differences in Chinese Teaching: a Study on Repetitive Particles

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Abstract. In the process of learning Chinese as a foreign language, students from different countries make different semantic errors because of the inevitable negative interlingual transfer. To better solve this problem, deep understanding on cross-linguistic semasiological differences is required. In this study, we briefly introduce how to use first-hand data collected from 40 languages and second-hand data from 33 languages to establish a semantic map centered on the notion of "repetition", and how the graph is divided into different contiguous sub-maps by clusters of grams in different languages. The research instantiates how we use the semantic map to predict and to correct the semantic error made by international students and how we can adjust lexical teaching beforehand to avoid such semantic errors.

Keywords: cross-linguistic, SMM, Chinese teaching, repetitive particles

1   Introduction

Semasiological differences across languages have long been recognized as one of the fundamental factors of negative interlingual transfer. In the process of learning Chinese lexical items, international students are prone to interpret the semantic repertoire of a Chinese particle based on the semantic behaviors of the counterparts in their mother tongue. To avoid such negative interlingual transfer, specific comparisons on the semasiological differences across large-scale cross-linguistic data are required, and the Semantic Map Model (SMM) is just one of the most powerful tools to represent the outcome of the comparisons. As described by Haspelmath [1], "A semantic map is a geometrical representation of functions in 'conceptual/semantic space' which are linked by connecting lines and thus constitute a network". In this network, the more similar the functions are, the closer they are located on the map [2]. By employing SMM, not only can we uncover a unique semantic structure for a particular grammatical item, but also, we can have a clear picture about the universal connective pattern of these meanings that could apply to arguably all languages.

In this study, we briefly introduce how to use first-hand data collected from 40 languages and second-hand data from reference grammar of 38 languages to establish a semantic map centered on the notion of "repetition" [3]. Then we turn from the universal

perspective to a language-specific perspective to see how the graph is divided into different contiguous sub-maps by different clusters of grams in different languages. That is, how an individual language uses different language forms to split up the map into contiguous smaller subparts. The bifurcations in the way different languages split the original semantic map offer considerable insight in explaining the negative semantic transfer occurred in the Chinese learning process. In addition, the study shows how we apply this bifurcation between the target language and the mother language to predict and to correct the interlanguage bias made by international students and how we can adjust teaching activities beforehand to avoid the semantic bias.

2   Typological background

To lay groundwork for following discussions, the present section sets out to discuss the theoretical background concerning the analytical tools – Semantic Map Model (SMM) in the field of typology and why it is used in the practices of Chinese teaching.

When conducting cross-linguistic comparisons, one is faced with numerous complex language facts. Some show a degree of consistency while others do not. The researcher has to decide which observations are language-particular and which are language universals. To reveal both the universals and particularities, typologists have developed a new method to represent both language universals and language-specific grammatical knowledge [4], and this approach is most often called the Semantic Map Model (SMM).

As described by Haspelmath [1], "A semantic map is a geometrical representation of functions in 'conceptual/semantic space' which are linked by connecting lines and thus constitute a network". In this network, the more similar the functions are, the closer they are located on the map. As the semantic map is derived from cross-linguistic comparison, it is believed to represent "a universal structure of conceptual knowledge [5]"; therefore, the configuration shown by the semantic map "is claimed to be universal [1]". Apart from the universals, the semantic map could also represent language-particular facts. There is a basic working principle to set up a semantic map – the "Semantic Connectivity Hypothesis". It requires that the functions expressed by a language-particular category should occupy contiguous areas on the semantic map. This is equivalent to saying that each language-specific category could be "map[ped] onto connected regions [5]". Therefore, the language universals concerning how concepts are connected are reflected by the overall configuration of the semantic map (which is also known as "conceptual space"), whereas the particularity of forms in individual languages could also be demonstrated by the map as the functions of a form would be represented by contiguous smaller areas of the original semantic map.

In this study, we will illustrate how to use cross-linguistic data in constructing a conceptual space centered on the notion of "repetition", and explains how different languages show different splitting patterns on the original conceptual spaces. It is just the different splitting patterns that causes the interlingual transfer; therefore, corresponding teaching methods can thus be proposed in avoiding such semantic errors.

3   The semantic maps on "repetition"

Zhang [3] takes the Chinese multifunctional repetitive adverbs hai, you and zai as a point of departure, analyzes the notions that they could express and attempts to reveal the universal pattern that these concepts are connected by comparing the counterparts of the three Chinese adverbs in 69 languages. Among all the cross-linguistic data, there are 21 Sino-Tibetan languages, 18 Indo-European languages, 6 Atlantic-Congo languages, 6 Tai-Kadai languages, and 18 other languages from Austronesian and etc.

Based on the first-hand and second-hand cross-linguistic data mentioned above, a conceptual space centered on the notion of "repetition" is established as Figure 1 below:
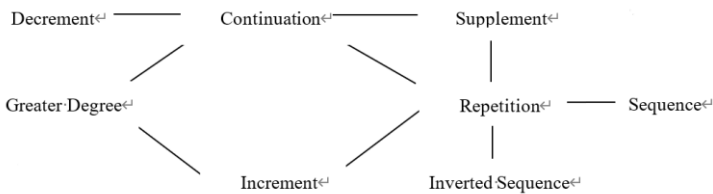
Decrement ———— Continuation ———— Supplement

Greater·Degree   Repetition ——— Sequence

Increment   Inverted·Sequence

Fig. 1. The conceptual space related to "repetition"

Now we are ready to turn from the universal perspective to a language-specific perspective to see how the above conceptual space is divided into different contiguous sub-maps by different clusters of grams in a particular language. In addition, we will also find how a gram in a particular language occupies a contiguous area in the universal connective figure. This latter is just what a semantic map is.

First, let us start from the semantic map of Chinese *hai* (the same pattern applies to Yun'ao Min, Southwestern Mandarin and Jin dialect as well). Chinese *hai* can independently express the notions of "decrement", "continuation", "supplement", "greater degree", "repetition", and "inverted-sequence". Therefore, the semantic map of Chinese *hai* can be reflected in the conceptual space as Figure 2 below.

Decrement ———— Continuation ———— Supplement

Greater·Degree   Repetition ——— Sequence

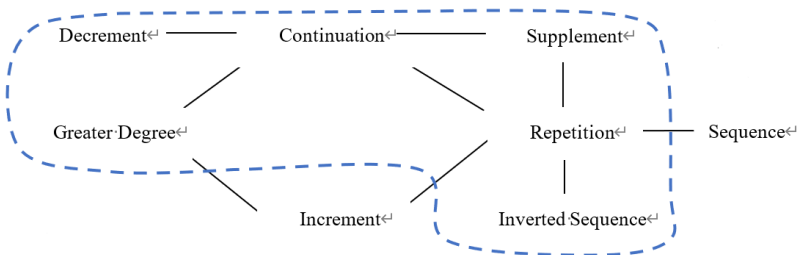Increment   Inverted·Sequence

Fig. 2. The semantic map of Chinese *hai*

The above patterns present the extreme circumstance in which one multifunctional form cover almost all the notions – six out of eight – in the space. Apart from the above data for Chinese, there are also multifunctional repetitive adverb/particles in other language that show the same degree of polysemy. For instance, *eshcho* in Russian, *ještě* in Czech, *ta rong* in Tibetan, and *vēl* in Lettish share the same semantic map as Figure 3.
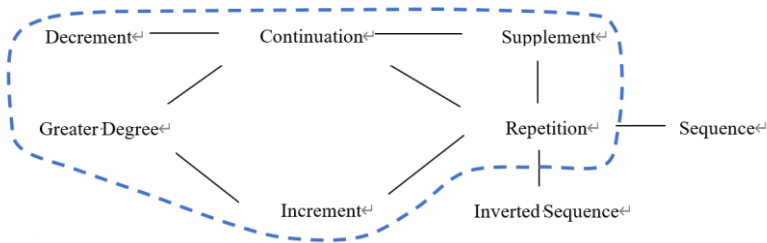

Fig. 3. The semantic maps of Russian *eshcho*, Czech *ještě*, Tibetan *ta rong* and Lettish *vēl*

Above we have presented the semantic maps of the repetitive adverbs that have a high degree of polysemy. These grams are relatively easier to recognize as the counterparts of Chinese *hai* as they basically cover the same range of notions. However, in other languages investigated, there might be more than one gram corresponding to Chinese *hai*. In other words, the functions that *hai* expresses may be coded by different forms in these languages. Therefore, the conceptual spaces can be accordingly split into more parts than those presented above. Among the 42 languages that have been investigated, Kinyarwanda is the language that fragments the conceptual space into the most subparts. In Kinyarwanda, six different forms are employed to denote the eight notions on the space as shown in Figure 4.
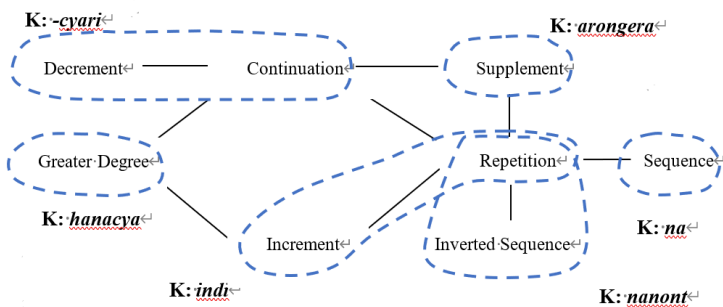

Fig. 4. The semantic maps of Kinyarwanda

If we compare the semantic map of Kinyarwanda with the previously presented maps of other languages, we will find that the grams expressing "repetition" in Kinyarwanda have a much smaller semantic range. In the previously presented maps, the grams expressing "repetition" could cover four or five other notions, and these grams of "high-

degree-polysemy" could either expand to the notion of "continuation" or "supplement" or both. However, in Kinyarwanda, the grams expressing "repetition" could only extend to one more notion, either to the notion of "increment" or to "inverted sequence".

The above example of Kinyarwanda is the only case that splits the conceptual space into six subparts. Now we can see more instantiations from the group of "low-degree-polysemy". In our sample, there are 14 languages that split the space into five areas. Most of the languages tend to split the conceptual space in the following three fashions.
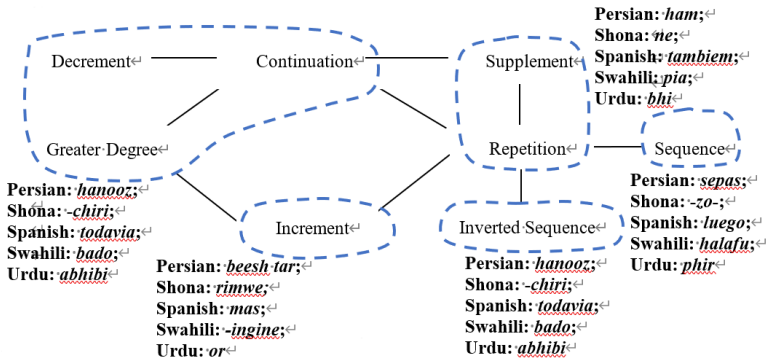

Fig. 5. The semantic maps of Persian, Shona, Spanish, Swahili and Urdu

These "low-degree-polysemous" grams shown in Fig.4 and Fig.5 can expand the "repetition" use only to notions of "increment" or "supplement", whereas the "high-degree-polysemous" grams as shown in Fig 2 and Fig. 3 can extend the "repetition" use to "continuation", "greater degree" and etc.

The onomasiological complexity of the grams may have a correlation with their morphological types. In other words, synthetic languages that have abundant morphological markings tend to split the conceptual space into more parts, which is equivalent to saying that the grams in these languages may have a lower degree of polysemy. On the contrary, isolating languages lacking morphological marking tend to split the conceptual space into fewer parts and consequently each gram has a higher degree of polysemy. One possible explanation of this bifurcation would be that the lack of morphological marking makes it easier to shift functions with zero derivation, and thus makes it easier for a gram in an isolating language to absorb more functions than its counterparts in a synthetic language.

4   Application to Chinese lexical teaching

By comparing the semantic maps between the target language-Chinese and the mother language during the process of Chinese lexical teaching, we will identify and predict in what way international students will make lexical negative transfer, and will adjust teaching activities beforehand to avoid the occurrence of such semantic errors [6].

As shown above, Chinese *hai* enjoys a high degree of polysemy. If the diachronic

development of this lexical item is examined, one can find that the function of "repetition" is extended from the use of "inverted sequence". Most studies claim that the adverb *hai* comes from the heteronymic verb *huan*, which originally meant "return". The meaning "return" developed into the notion of "repetition", and it is from "repetition" that the meaning of "continuation" and "supplement" were derived [7, 8].

However, when figure 2 and figure 3 are compared, it can be noticed that in many other languages like Russian, Czech, Tibetan and Lettish, although the repetitive particles also enjoy a high degree of polysemy, the "repetition" function is more related to the notion of "increment" rather than "inverted sequence". This bifurcation sheds light on the possible semantic bias that might be made by the international students who are greatly influenced by the language of Russian, Czech, Tibetan and Lettish.

In the same vein, figure 2 and figure 5 can also be compared to detect in what way international student who speak Persian, Shona, Spanish, Swahili and Urdu will make the interlanguage negative transfers. As the above-mentioned languages will employ different lexical items to denote the notions of "repetition", "continuation", "inverted sequence", whereas the functions of Chinese *hai* extends from "inverted sequence" and "repetition" all the way through to the notions of "continuation" and "decrement". Chances are high that students familiar with the above-mentioned languages are prone to use other items rather than *hai* in delivering the notions of "continuation" and "decrement". Therefore, it is recommended to depict a holistic picture of the repertoire of *hai* when teach repetitive particles to students from these countries.

5   Conclusions

The typological study has been recognized as a promising tool to benefit international education of Chinese [9]. The conceptual space and the semantic map, are arguably the most powerful tools to present the outcomes and facilitate language teaching correspondingly. The former which shows the universal connective pattern, represents a common human cognitive heritage, or rather "the geography of the human mind" [4]; whereas the latter shows a bounded region in the universal configuration for a language-specific form which we may help us to detect how the categories defined by constructions in human languages may vary from one language to another [10].

By comparing the semantic maps centered on "repetition" between Chinese and other languages, this study illustrates how "low-degree-polysemous" grams and "high-degree-polysemous" grams are differentiated. That is, "low-degree-polysemous" repetitive grams can expand the "repetition" use only to notions of "increment" or "supplement", whereas the "high-degree-polysemous" repetitive grams can extend the "repetition" use to "continuation", "greater degree" and etc. Based on the variations, we may identify and even predict in what way the international students will make lexical negative transfers, and can therefore adjust teaching activities accordingly to avoid the occurrence of relative semantic errors.

The semasiological differences depicted by the cross-linguistic comparisons can also provide us with more insights on diachronic semantic development rules and we believe this line is also rewarding in promote Chinese education in the world.

Acknowledge

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