Patterns in metaphor translation: a corpus-based case study of the translation of FEAR metaphors between English and Chinese

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1. Introduction and problem statement

Following the publication of Lakoff and Johnson's (1980) influential *Metaphors We Live By* it has become widely recognized in cognitive science and linguistics that metaphor is ubiquitous in language and cognition: complex and abstract concepts are often thought and talked about in terms of conceptually simpler and more concrete notions. A fairly recent outcome of this research is the realization that there is both cross-cultural similarity and variation in metaphor: some metaphors can be identified in a great many languages, while others are language-specific (Kövecses 2000, 2005). The reality of this makes the question of what happens to metaphors in the process of translating text a very relevant one.

To this question there are two sides, one linguistic, the other conceptual: a) how does cross-cultural variation in metaphor affect the translation of metaphorical expressions? and b) how does the translation of metaphorical expressions affect the metaphors they express? A number of studies approaching metaphor translation from a cognitive linguistic perspective have addressed either the one or the other of these aspects. Studies of the first kind are Mandelblit (1995), Maalej (2003) and Al-Zoubi *et al.* (2006), which all distinguish between a "similar mapping condition" (SMC) and a "different mapping condition" (DMC). In the SMC case the source language (SL) and the target language (TL) use an identical metaphor to conceptualize a

particular notion; in the DMC case SL and TL conceptualize a particular notion using a different metaphor. While Mandelblit (1995) focuses on the translation process, using translators' reaction time as a parameter that reveals differences in the translation process in the SMC and the DMC situations, the studies by Maalej (2003) and Al-Zoubi *et al.* (2006) are product-oriented, offering several sets of examples that illustrate how translation products are dependent on SMC and DMC. What the three studies have in common is the conclusion that metaphoric expressions based on metaphors shared by SL and TL are more readily translatable than those based on metaphors that only exist in SL, as the translation of the latter involves a conceptual shift, i.e. a transfer from one way of conceptualizing an aspect of reality to another.

Studies addressing the effect of translation on metaphor are Schäffner (2004) and Stienstra (1993). Their approaches are largely descriptive, focusing on how metaphors and metaphorical expressions are dealt with in actual translations. Schäffner (2004) identifies five types of metaphor translation in an investigation of translations of political texts between English and German:

> (1) a conceptual metaphor is identical in ST and TT[1] at the macro-level without each individual manifestation having been accounted for at the micro-level; (2) structural components of the base conceptual schema in the ST are replaced in the TT by expressions that make entailments explicit; (3) a metaphor is more elaborate in the TT; (4) ST and TT employ different metaphorical expressions which can be combined under a more abstract conceptual metaphor; (5) the expression in the TT reflects a different aspect of the conceptual metaphor. (Schäffner 2004: 1267)

The first type of metaphor translation, for instance, can be instantiated in the following case (Schäffner 2004: 1259-1260). In a speech delivered by the former German Chancellor, Helmut Kohl, a German sentence whose literal translation into English should be *The American forces in Germany are thus an important component of the transatlantic bridge* was actually translated as *The American forces in Germany are thus an important component of transatlantic friendship*, which at the first glance appears to suggest that a metaphor was deleted. However, according to Schäffner, *bridge* is only an individual manifestation of two macro-level metaphors, A STATE IS A PERSON and INTIMACY IS CLOSENESS, which she shows to be preserved in the translated text through a close analysis of the whole passage. In other words, the source text and the translated text make use of exactly the same macro-level metaphors, though, at the micro-level, the specific metaphorical expression using *bridge* is not rendered in the translation. Stienstra (1993) observed the same phenomenon when studying Bible translations into English and Dutch: the metaphor YHWH IS THE HUSBAND OF HIS PEOPLE is preserved at the macro-level, but its specific textual manifestations is not always accounted for in each individual case (cf. Schäffner 2004: 1261).

A drawback of the studies within the first of these two approaches is that they do not give enough attention to the authentic texts to show precisely how cross-cultural variation in metaphor can affect the outcome of the translation of metaphorical expressions. On the other hand, studies within the second approach, which do pay attention to translation products, do not try to relate the treatment that metaphorical expressions receive with cross-cultural variation in conceptual metaphor. The present paper seeks to combine these two broad approaches through a corpus-based case study of FEAR metaphors in translations from English to Chinese. As such it also contributes to the study of the conceptualization and language of emotions, which has arguably taken pride of place within the now well-established "conceptual metaphor theory"

paradigm (see, for instance, Geeraerts & Grondelaers 1995; Gevaert 2005; Györi 1998; Koivisto-Alanko 2006; Kövecses 1990, 2000; Maalej 2007; Matsuki 1995; Yu 1995). We aim to describe the treatment that FEAR metaphors and their metaphorical expressions receive in actual translations and to explore the relation between this treatment and cross-cultural variation with relation to FEAR metaphors. Our specific research questions link up cross-cultural variation with translational practice:

1. Will expressions of a metaphor in SL be translated as expressions of the same metaphor in TL when the metaphor is shared by the two languages? In other words, will a metaphor in SL be preserved in translation if it is also available in TL?
2. If only SL has the metaphor, how will an expression of this metaphor be translated? a) literally, b) into an expression of the original metaphor in SL (and hence a novel one in TL), c) as an expression of a different metaphor, so as to at least retain the metaphorical nature of the language employed, or d) using other strategies? In other words, if a metaphor in SL is not shared with TL, what will happen to it in the process of translation? Will it disappear altogether or will it be preserved in some way?
3. If option c) in 2 occurs with any regularity at all, is there any discernible pattern in the cases where an expression of one metaphor is translated into an expression of another metaphor? In other words, is there any regularity in metaphor changes in the translation process?

As heralded by the title of the paper, our approach to answering these questions will be a corpus-based one. We do not think this is much in need of justification: the state of the art in both

metaphor and translation research is such that the advantages of a corpus-based approach to either of them no longer need to be advocated (for metaphor studies, see Deignan 2005 and Stefanowitsch & Gries 2006; for translation studies, see Baker 1995, 1999, Laviosa 1998 and Olohan 2004). The next section will set forth which corpora were used and how they were used.

2. Methodology

A key methodological ingredient of our research is the corpus-based identification of metaphors and metaphorical expressions. This can broadly be said to consist of two consecutive methodological activities, or activity groups: 1) the retrieval from the corpora of lexical material that instantiates the target domain of the metaphors we are interested in and 2) determining a) which instances of this material constitute parts of metaphorical expressions and b) what metaphors these metaphorical expressions realize. After identifying the corpora used in section 2.1, we will outline the specifics of these activities in sections 2.2 and 2.3. Section 2.4 contains a note on the compilation of the frequency information that will contribute to answering the research questions detailed in section 1.

2.1. Resources

Four corpora were made use of which are all freely accessible online: the English-Chinese parallel corpus of the Hong Kong Institute of Education (PCHKIE for short, available at http://ec-concord.ied.edu.hk/paraconc/index.htm), the English-Chinese parallel corpus of

Xiamen University (PCXU, http://www.luweixmu.com/ec-corpus/index.htm), the Lancaster Corpus of Mandarin Chinese (LCMC, available at http://corpus.leeds.ac.uk/query-zh.html) and the Chinese Internet Corpus (CIC, also available at http://corpus.leeds.ac.uk/query-zh.html). The two parallel corpora were used to identify English FEAR metaphors and their expressions and to establish how these are translated into Chinese. The monolingual Chinese corpora were used for the identification of idiomatic Chinese FEAR metaphors and expressions.

2.2. Target domain item retrieval

To be able to retrieve the metaphors relevant to this study from our corpora we adopted the Metaphorical Pattern Analysis method (MPA) proposed by Stefanowitsch (2006), who defines a "metaphorical pattern" as 'a multi-word expression from a given source domain (SD) into which one or more specific lexical items from a given target domain (TD) have been inserted' (Stefanowitsch 2006: 66). MPA can retrieve a large number of metaphorical patterns by searching the target domain item in a corpus and identifying the metaphors associated with these metaphorical patterns. Since, in Stefanowitsch's approach, target domain items are always nouns referring to the target domain, it follows that, technically, not all metaphorical expressions of a metaphorical domain are also "metaphorical patterns" and that an approach based on identifying such patterns may not capture all metaphorical expressions, or all metaphors even, of a particular target domain. For instance, of the following expressions of the ANGER IS A HOT FLUID IN A CONTAINER metaphor, borrowed in part from Kövecses (2002: 96-97), only (1) to (3) are metaphorical patterns, because they contain the TD lexical item *anger*. (4) to (6), on the other hand, though clearly metaphorical expressions of the same metaphor, are not identified as

metaphorical patterns and cannot be retrieved by the MPA method.

ANGER IS A HOT FLUID IN A CONTAINER

（1） *His pent-up anger welled up inside him.*

（2） *My anger kept building up inside me.*

（3） *He was bursting with anger.*

（4） *She could feel her gorge rising.*

（5） *We got a rise out of him.*

（6） *He was angered to the point where his blood was starting to boil.*

Stefanowitsch (2006: 69) has demonstrated, however, that MPA can nevertheless 'identify metaphors more systematically and more exhaustively than non-corpus-based approaches'.

Adopting the MPA approach we searched for the word *fear* in the two English-Chinese parallel corpora to retrieve expressions of FEAR metaphors in native English texts (NET) and the expressions matching them in the parallel translated Chinese texts (TCT), and searched for the word *kongju* in the Chinese corpora to extract Chinese FEAR metaphors from native Chinese texts (NCT). Altogether we extracted 203 instances of *fear*[2] from the two parallel corpora, 22 instances of *kongju* from the Lancaster Corpus of Mandarin Chinese and another 100 instances of *kongju* randomly exacted from the Chinese Internet Corpus. The reason we chose *kongju* as the Chinese target domain item is that an examination of the translations of *fear* in TCT showed that *fear* was translated as *kongju* in 51 of the 110 cases in which *fear* was part of a metaphorical expression in NET. Compared to *pa* (10 instances), *danxin* (9), *haipa* (9), *youlv* (8) and another nine words with a frequency of not more than three, this makes *kongju* the most typical

equivalent of *fear* in the translation of metaphorical expressions of FEAR.

2.3. Metaphor identification

Metaphor identification is a problematic issue that has received considerable attention (Cameron 1999; Crisp 2002; Heywood *et al*. 2002; Semino *et al*. 2004; Steen 1999, 2002; Pragglejaz Group 2007). Semino *et al*. (2004: 1272), for instance, list four major methodological problems in their metaphor identification and analysis process, related to how to draw a boundary between the literal and the metaphorical, how to precisely identify the tenor and the vehicle, how to extrapolate conceptual metaphor from metaphorical expressions and how to extrapolate conventional metaphor from patterns of metaphorical expressions. Cameron (1999) advises that one way to raise the validity of research on metaphor is to work with precise criteria and to offer explicit decision making in metaphor identification. In the research reported here we adopted a metaphor identification procedure based on her work (Cameron 1999) and on work of the Pragglejaz Group (2007). The general principle of this procedure is that metaphors are identified by examining the verbs, prepositions and adjectives that the target items collocate with. The specific steps of the procedure are the following:

1. Read the expressions containing the target items to establish the meaning of the whole expression and each word.
2. Determine the verbs, prepositions and adjectives that collocate with the target domain items.
3. For each verb, preposition and adjective, determine whether it can collocate with words that denote a more concrete category of things in other contexts.

4. If it can, determine if FEAR contrasts with the more concrete category of things but can be understood in terms of it.
5. If yes, take the more concrete category as the source domain and formulate the metaphor.

Three points need to be specified with relation to this procedure. First, we identified not only general metaphors but also their specifications, if they have any. By "specification" we mean subordinate level metaphors that highlight a particular aspect of the general metaphors. For example, it was found that the metaphor FEAR IS AN ENTITY has 7 different specifications in English, which we have formulated respectively as X FEELS FEAR WHEN X IS IN POSSESSION OF THE ENTITY, X FEELS FEAR WHEN THE ENTITY IS PRESENT, THE INTENSITY OF FEAR IS THE SIZE OF THE ENTITY, and so on.

Second, we consulted the *Collins English Dictionary* (*CED*, 3rd edition) and the British National Corpus (BNC) for English, and *zhonghua zaixian cidian* (*Online Chinese Dictionary*, http://www.ourdict.cn/), the LCMC and the CIC for Chinese, in order to check whether the verbs, prepositions and adjectives combining with the target domain item can collocate with words that denote a more concrete category of things in other contexts. For example, we categorized *She has a great fear of fire* as an instance of X FEELS FEAR WHEN X IS IN POSSESSION OF THE ENTITY mainly on the basis of the fact that the first sense of *have* in the *CED* is 'to be in material possession of', illustrated by *He has two cars*. Because the *CED* does not have entries for *explain away, laugh away,* and *drive away*, we looked for these in the BNC to account for expressions like *explain the fear away*, *laugh the fear away*, and *drive the fear away*. The results showed that while *drive away* could collocate with words that denote concrete entities like *competitors*, *mosquitoes*, etc., *explain away* and *laugh away* could only collocate with words that

denote abstract things like *difficulty, embarrassment,* etc. Therefore only *drive the fear away* was considered to be metaphorical and categorized as an instance of X FEELS FEAR WHEN THE ANIMATE BEING IS PRESENT, a specification of the metaphor FEAR IS AN ANIMATE BEING.

Finally, for additional help with metaphor identification and formulation, we also referred to work by Kövecses (1990, 2000), Stefanowitsch (2006) and Zhang (2000), who have all investigated either English or Chinese metaphors of FEAR.

2.4. Quantification

Subsequent to their identification, all metaphors and their specifications were tallied. Some metaphorical expressions were counted more than once because they instantiate two or more metaphors or specifications that do not conflict with each other. For instance, we counted the expression *I don't have the smallest fear* twice, once as the expression of X FEELS FEAR WHEN X IS IN POSSESSION OF THE ENTITY and once as the expression of THE INTENSITY OF FEAR IS THE SIZE OF THE ENTITY. On the other hand, though many of the metaphors we identified can be organized into what Lakoff (1993) called 'hierarchy structures', in such a way that the source domain of one metaphor may logically include that of another, only the more specific metaphors were taken into account in such cases. An example is the inclusive relationship between FEAR IS AN ENTITY and FEAR IS A SUBSTANCE IN A CONTAINER. Though a substance in a container is definitely an entity, expressions of the second metaphor like *The child's convulsions filled us with fear* were not also counted as expressions of the first, with respect to which it stands in a hyponymic relationship.

3. Results

As mentioned in section 2.2, an MPA of the NET corpus produced 203 *fear* expressions. 110 of these were established to be metaphorical. The number of metaphorical expressions in the matching translations is only 71, however. In the NCT corpus 85 out of a total of 122 *kongju* expressions were established to be metaphorical. All the general metaphors and specifications identified in the NET, TCT and NCT corpora are listed in Table 1. In this table, N indicates the number of metaphorical expressions of a particular metaphor; n indicates how many of these English metaphorical expressions were translated into Chinese metaphorical expressions of the same metaphor[3], i.e. how many times the metaphor was preserved; R indicates the frequency rank of a particular metaphor in NCT on a scale from 1 (most frequent) to 9 (least frequent), depending on the number of its expressions. Following each specification, the symbols [+], [–], [S] and [NS] further elaborate a specification, with [+] referring to the situation where X feels fear or feels more intense fear, [–] to the situation where X does not feel fear or feels less intense fear, [S] to the situation where fear itself is the logical subject of the metaphorical expression (i.e either the grammatical subject of an active expressions or the agent of a passive) and [NS] to the situation where fear is not the logical subject of the metaphorical expression. In what follows, we will refer to particular specifications with labels like 2a[+][NS] for convenience. Table 1 also supplies an illustration of each metaphor. These are not attested examples but simplified expressions which only retain the key words and semantic relations that can manifest the metaphor. The illustrations in parentheses in Table 1 are simplified literal translations of Chinese metaphorical expressions which do not have corresponding metaphors in NET.

[TABLE 1 TO COME AROUND HERE]

Two sets of descriptive observations can be made from a first inspection of Table 1. The most general one in the first set is that translation leads to a reduction in the number of metaphorical expressions and metaphors. Only 71 of the original 110 English metaphorical expressions remain metaphorical after translation, and the numbers of general metaphors and specifications are respectively reduced from 16 in NET to 13 in TCT and from 15 to 14. The metaphors that have been "lost in translation" are: 11. FEAR IS A SHARP OBJECT; 14. FEAR IS A POISON; 16. FEAR IS A MACHINE. The metaphor specifications that have not made it into the translations are: 3a. X FEELS FEAR WHEN THE SUBSTANCE IS PUT INTO X'S BODY CONTAINER FROM OUTSIDE; and 4c. X FEELS FEAR WHEN THE ANIMATE BEING IS PRESENT IN THE BODY CONTAINER. In addition, we can also observe a general decrease in the number of expressions of each metaphor. The most salient example is 5 [+][S], falling from ten occurrences in NET to only one in TCT. There is one case involving a noticeable increase, however, viz. 2d [–][NS], which does not occur in NET but has six attestations in TCT.

The second set of observations relates to cross-cultural differences in metaphors of FEAR between English and Chinese. First, both English and Chinese possess metaphors that are not shared by the other language. NET has six general metaphors and two specifications that do not exist in NCT, which are: 6. FEAR IS A SUPERNATURAL BEING; 9. FEAR IS A DISEASE; 11. FEAR IS A SHARP OBJECT; 14. FEAR IS A POISON; 15. FEAR IS A LEGACY; 16. FEAR IS A MACHINE; 2b. X FEELS FEAR WHEN THE ENTITY IS PRESENT and 4c. X FEELS FEAR WHEN THE ANIMATE BEING IS PRESENT IN THE BODY CONTAINER. By contrast, NCT only contains two specifications that do not exist in NET, viz. 2g. THE INTENSITY OF FEAR IS THE AMOUNT OF THE ENTITY and 2h. THE INTENSITY OF

FEAR IS THE WEIGHT OF THE ENTITY.

Second, English and Chinese may differ greatly in the number of metaphorical expressions for a shared metaphor. Salient examples include 3b[+][S] (three cases in NET, eleven in NCT), 4d (two cases in NET, seven in NCT), and 5[+][S] (ten cases in NET, one in NCT). Metaphor 5. FEAR IS AN OPPONENT is quite interesting. In NCT there are seven metaphorical expressions of 5[NS] where X is the logical subject that acts against fear, but there is only one metaphorical expression of 5[S] where fear is the logical subject that exerts influence on X. In NET, on the other hand, there is an equal balance between the metaphorical expressions of 5[NS] and 5[S], eleven and ten cases respectively. This seems to indicate that Chinese, unlike English, usually uses this metaphor to conceptualize an attempt to control fear, but not the state of falling victim to fear.

4. Discussion

Here we will answer each of the three research questions formulated in section 1. As can be seen from the data, the answer to the first question is that the expressions of English metaphors are not necessarily translated as expressions of the same metaphors in Chinese even in cases when the metaphor is shared by the two languages. We speculate that this is because the degree of entrenchment[4] of a metaphor in TL may have a stronger influence than the mere fact that the ST metaphor is also available in TL. This is supported by the fact that metaphorical expressions of metaphors shared by SL and TL which have a high frequency rank in NCT tend to be better preserved in TCT. For example, the metaphorical expressions of 3b[+][S], 4d, and 5[–][NS], which occupy the first, the third and the fifth place in NCT respectively, are all well-preserved.

By contrast, only one of the ten expressions of 5[+][S] in NET, which is a lowly ranked metaphor in NCT, is retained as the expression of this metaphor in TCT. Below, in our discussion of the third research question, we will offer further evidence supporting the claim that the degree of entrenchment of a metaphor can affect the preservation of metaphors in translations to a large extent.

An example that could invalidate our suggestion about the role of the degree of entrenchment of a metaphor is perhaps 2a[+][NS], the frequency rank of which is the second in NCT, while only three of the seven expressions of it in NET are preserved in TCT. However, a closer examination of these metaphorical expressions leads to an interesting finding that may explain why the preservation of 2a[+][NS] is hindered. Our data show that two instances of 2a[+][NS] are also metaphorical expressions of 2f[+][NS] in NET. But the rank of 2f[+][NS] is rather low in NCT and there is no occurrence of the same combination of 2a[+][NS] and 2f[+][NS] in NCT.[5] In fact, these two instances, i.e. (1) and (2) were both translated literally:

(1) *She has a great fear of fire.* ➔ *ta* *hen* *pai* *huo* [PCXU]
she very fear fire
'She fears fire very much'

(2) *She has a great fear of water.* ➔ *ta* *hen* *pai* *shui* [PCXU]
she very fear water
'She fears water very much'

The fact that combinations of 2a[+][NS] and 2f[+][NS] got lost in translation is therefore quite in

accordance with our suggestion about the role of the degree of entrenchment of TL metaphors. In other words, the translation of 2a[+][NS] confirms rather than disconfirms what was said in the previous paragraph.

The following observations are relevant to the second research question. At the most specific level, there are 18 English metaphors that do not exist in NCT, viz. 2b[+][S], 2b[–][NS], 2b[–][S], 2f[+][S], 2f[–][NS], 2i[+][S], 2i[–][NS], 3a[+][NS], 4a[–][NS], 4b[–][NS], 4c[+][S], 4c[–][NS], 6, 9, 11, 14, 15 and 16. These metaphors have a total number of 31 metaphorical expressions in NET. Ten of these were nevertheless translated into expressions of the same metaphor. For example, both the original English expression and the translated Chinese expression in (3) are instances of the same metaphor 9. FEAR IS A DISEASE, despite the fact that this metaphor does not appear in NCT.

(3) *Fear can be contagious.* ➔ *kongju hui ganran taren* [PCXU]
fear can infect other people
'Fear can infect other people'

Nine NET metaphors not existing in NCT were translated into expressions of a different metaphor. For instance, the English expression of 1a[–][NS] in (4) was translated into an expression of 2d[–][NS].

(4) *He tried to reason himself out of fears.*

➔ *ta shitu shuofu ziji xiaochu youlv* [PCHKIE]

he try persuade himself eliminate fear

'He tried to persuade himself into eliminating fear.'

Seven NET metaphors not in NCT were translated literally, for example:

(5) *She walked in fear on the lonesome road.*

➔ *Ta yigeren zou zai lu shang, juede hen haipa* [PCXU]

she alone walk PRT road on, feel very fearful

'She walked alone on the road, feeling very fearful.'

Five were translated into metonymic expressions where the psychological effects of fear are used to stand for the emotion. This can be illustrated by (6) where the bodily action of trembling is used to refer to fear in the translated Chinese expression.

(6) *His fear of her has always operated, I know, when they were together.*

➔ *Wo hen mingbai, mei feng ta he ta zai yiqi de*

I very understand, every time when he and she be together

shihou, ta jiu mianbuliao hunshen fadou. [PCXU]

MOD time, he would unavoidably all his body tremble

'I understand quite well that he would tremble every time when he and she were together.'

One might wonder how a metaphor can possibly be preserved in TCT when it does not (appear to) exist in NCT, as in (3). Two points can be mentioned in this respect. First of all, our NCT corpus undoubtedly does not cover all Chinese metaphors, so that we will fail to identify a number of metaphors existing in Chinese if we treat it as conclusive. An example is the metaphor 9. FEAR IS A DISEASE. Three of the four expressions of this metaphor found in NET were translated into expressions of the same metaphor in TCT, and these appear to be quite idiomatic Chinese. To confirm the existence of this metaphor in Chinese, we did a Google internet search for expressions containing the key words *kongju* ('fear'), *manyan* ('spread') and *chuanran* ('infect'), which produced a considerable number of examples from native Chinese texts. One of these is (7).

(7) *Zuotian yatai shichang de dafudu bodong biaoming shichangde*
yesterday Aisa-Pacific market MOD great fluctuation show market's
kongju qingxu xian chuanranbing yiyang zhengzai kuosan
fear mood like contagion the same ASP spread
'Yesterday the great fluctuation of the Asia-Pacific market showed that the market's fear was spreading like a contagion' (http://blog.ce.cn/html/93/107593-71534.htm)

A second point is that metaphors can be borrowed. The fact that a metaphor has so far not been used in a language does not mean it is an unacceptable way of conceptualizing the target. Language users, and eventually languages, can borrow, or "calque", metaphors just as they can borrow words and "loan metaphorical expressions" are in principle not less plausible than loan

words. It is an empirical fact, however, that metaphors that do not exist in NCT are less easily preserved in translation: while 42 of the 79 metaphorical expressions of shared metaphors (53%) are translated as expressions of the same metaphor, this is only true of 10 of the 31 metaphorical expressions of unshared metaphors (32%).

Continuing the discussion of the second research question, and at the same time addressing the third question, we can note that there are 19 metaphorical expressions in NET that are translated into expressions of another metaphor, nine of which are instances of shared metaphors and ten of which are expressions of unshared metaphors. A close examination of them shows that there *is* a pattern in the change of metaphors in translation. As can be seen from Table 2, it is always metaphors that have a low frequency rank in NCT that are changed, and they are usually changed into metaphors that rank higher. The third research question can therefore be answered in the affirmative. Highly entrenched metaphors "obliterate" metaphorical expressions of lowly entrenched metaphors, so to speak. It is only natural, therefore, to return to our answer to the first research question, that highly entrenched metaphors are more easily preserved.

[TABLE 2 TO COME AROUND HERE]

From Table 2, we can also make the following three observations pertaining to changes between particular metaphors:

1. 2b. X FEELS FEAR WHEN THE ENTITY IS PRESENT tends to be changed to 2d. X FEELS FEAR WHEN THE ENTITY EXISTS. There are five metaphorical expressions of 2b, three of which are translated into expressions of 2d.

2. 6. FEAR IS A SUPERNATURAL BEING exhibits a tendency to be changed to 12. FEAR IS A NUISSANCE. Two of the four metaphorical expressions of 6 are translated into expressions of 12.
3. Two metaphorical expressions of 5[+][S], a specification of the OPPONENT metaphor, are translated into expressions of 7. FEAR IS A TORMENTOR.

These three observations seem to suggest that similarity can be a factor influencing a change of metaphors, in addition to the rank of entrenchment. The are obvious points of overlap between the metaphors in each pair: if an entity disappears, it can be construed to no longer exist; a supernatural being can be a nuisance; an opponent can torture a person and a tormentor can be seen as an opponent. In other words, a change of metaphors is more likely to happen between more similar metaphors.

5. Conclusion and impact for metaphor translation studies

The main findings of this paper can be summarized as follows. What will happen to a particular SL metaphor in translation, and what kind of treatment its metaphorical expressions will receive, is highly dependent on its entrenchment ranking in TL. If the metaphor occupies a high entrenchment rank in TL, it is more likely to be preserved in translation and its metaphorical expressions are more likely to be translated into metaphorical expressions of the same metaphor. If the metaphor is of a low entrenchment rank in TL, or not shared by TL, it is less likely to be preserved. It may either be translated non-metaphorically or changed into a metaphor that has a higher rank in TL.

This research has three implications. First, given that entrenchment matters in translation, a cognitive approach to translation studies should do more than distinguish between SMC and DMC (see section 1). For example, though 5[+][S] exists in both English and Chinese, it is frequently changed into other metaphors as a result of its low entrenchment rank in TL. The conceptual shift this involves was assumed to take place only in the DMC situation, i.e. the situation where SL and TL do not share a metaphor, but the present research offers a corrective to this assumption.

Second, since degree of entrenchment appears to play a significant role in metaphor translation, more quantitative analysis is needed to determine the degree of entrenchment of metaphors, which in turn calls for more corpus-based metaphor translation research.

Third, since not only metaphors but also their discrete specifications can differ in terms of entrenchment, it is essential to analyze metaphors at the more specific levels so that cross-cultural (and also diachronic) differences in metaphor can be captured more precisely.

In sum, a fine-grained, quantitative, corpus-based approach will greatly enhance research into metaphor translation.

Notes

[1] ST and TT respectively refer to the source text and the target text.

[2] As indicated above, in Stefanowitsch' (2006) method, target domain items are always nouns, so unless otherwise specified, the expressions we retrieved are those containing the noun forms of the lemma word, i.e. *fear* and *fears*.

[3] In judging whether a metaphorical expression is translated as an expression of the same

metaphor, we considered the most specific level only. In other words, for metaphors that have specifications, what we compared were the specifications rather than the general metaphors. For example, an expression of 2b[–][NS] is regarded as translated into an expression of the same metaphor if and only if its translated expression is still an expression of 2b[–][NS]. It is counted as translated into an expression of a different metaphor when its translated expression belongs to 2d[–][NS], though 2b[–][NS] and 2d[–][NS] are specifications of the same general metaphor.

[4] We borrowed the term 'entrenchment' from Langacker (1987). As defined in Evans (2007: 73), it refers to 'the establishment of a linguistic unit as a cognitive pattern or routine in the mind of an individual speaker'. According to Langacker (1987: 59), linguistic structures and units fall along a continuous scale of entrenchment in cognitive organization, with the degree of entrenchment being closely related to the frequency of their occurrence, i.e. a linguistic structure or unit is more entrenched if it has a higher frequency of occurrence (see also Braine and Brooks 1995, Ambridge *et al*. 2008).

[5] But there exists a different combination of specifications in NCT, viz. the combination of 2a[+][NS] and 2g[+][NS], which seem to have a stronger tendency to combine with each other: five of the eight instances of 2a[+][NS] are also expressions of 2g[+][NS]; all five expressions of 2g[+][NS] are expressions of 2a[+][NS] as well.

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Table 1: metaphors in NET, TCT and NCT

General metaphor	Specification			Illustration	NET		TCT	NCT	
					N	n	N	N	R
1. FEAR IS A LOCATION	a. X FEELS FEAR WHEN X IS IN THE LOCATION	+	NS	X lives in fear	5	1	2	3	6
		–	NS	To reason X out of fear	2	1	1	2	7
	b. Others			X vacillates between fear and hope	4	3	3	0	
2. FEAR IS AN ENTITY	a. X FEELS FEAR WHEN X IS IN POSSESSION OF THE ENTITY	+	NS	X has fear	7	3	3	8	2
		–	NS	X has no fear	4	0	0	1	8
	b. X FEELS FEAR WHEN THE ENTITY IS PRESENT	+	NS						
			S	Fear before X	1	1	1	0	9
		–	NS	X puts fear aside	3	0	0	0	9
			S	The fear is away	1	0	0	0	9
	c. X FEELS FEAR WHEN X IS WITH THE ENTITY	+	NS	X views something with fear	1	1	2	4	5
		–	NS						
	d. X FEELS FEAR WHEN THE ENTITY EXISTS	+	NS						
			S	There is fear	1	0	0	1	8
		–	NS	(to eliminate fear)	0	0	6	4	5
			S	fear disappears	5	3	5	3	6
	e. X FEELS FEAR WHEN THE ENTITY IS LIFTED	+	NS	Something raises fear among X	2	2	3	3	6
		–	NS	Fear is laid	1	1	1	1	8
	f. THE INTENSITY OF FEAR IS THE SIZE OF THE ENTITY	+	NS	X has great fear	3	0	0	1	8
			S	X's greatest fear is …	1	1	1	0	9
		–	NS	X does not have the smallest fear	1	0	0	0	9
			S						
	g. THE INTENSITY OF FEAR IS THE AMOUNT OF THE ENTITY	+	NS	(X has some of fear)	0	0	0	5	4
			S						
		–	NS	(to reduce X's fear)	0	0	0	2	7
			S						
	h. THE INTENSITY OF FEAR IS THE WEIGHT OF THE ENTITY	+	NS	(X has heavy fear)	0	0	0	1	8
			S						
		–	NS	(to lighten X's fear)	0	0	0	3	6

			S						
	i. X SHOWS FEAR WHEN THE ENTITY IS SEEN	+	NS	(He shows fear on his face)	0	0	1	1	8
			S	Fear is manifest	1	0	0	0	9
		–	NS	X shows no tint of fear	1	1	1	0	9
			S						
	j. Others			Underneath the fear there is hope	3	2	2	0	
3. FEAR IS A SUBSTANCE IN A CONTAINER	a. X FEELS FEAR WHEN THE SUBSTANCE IS PUT INTO X's BODY CONTAINER FROM OUTSIDE	+	NS	Something fills X with fear	4	0	0	0	9
		–	NS	(to discharge the fear in X's heart)	0	0	0	2	7
	b. X FEELS FEAR WHEN THE SUBSTANCE IS PRESENT IN X's BODY CONTAINER	+	NS						
			S	His fear showed in his eyes.	3	3	5	11	1
		–	NS						
			S	(There is no fear in X's heart any more)	0	0	0	1	8
	c. X FEELS FEAR WHEN THE SUBSTANCE IS PRESENT IN THE CONTAINER WHERE X IS	+	NS						
			S	Fear fills the car	1	1	1	1	8
		–	NS						
			S						
4. FEAR IS AN ANIMATE BEING	a. X FEELS FEAR WHEN THE ANIMATE BEING IS ACTIVE	+	NS	Something awakes X's fear	3	2	2	1	8
			S						
		–	NS	To quiet X's fear	2	1	1	0	9
			S						
	b. X FEELS FEAR WHEN THE ANIMATE BEING IS PRESENT	+	NS						
			S	(The fear never leaves)	0	0	0	1	8
		–	NS	To drive X's fear away	2	1	2	0	9
			S						
	c. X FEELS FEAR WHEN THE ANIMATE BEING IS PRESENT IN THE BODY CONTAINER	+	NS						
			S	Fear creeps into X's mind	1	0	0	0	9
		–	NS	To drive fear out of X's mind	1	0	0	0	9
			S						

	d. FEAR COMES INTO BEING WHEN THE ANIMATE BEING IS PRODUCED			Something breeds fear	2	2	2	7	3
	e. Others			fear seems to possess his own life	2	1	1	0	
5. FEAR IS AN OPPONENT	X FEELS FEAR WHEN THE OPPONENT IS HAVING ADVANTAGE	+	NS	X can not control fear	1	1	1	3	6
			S	X is besieged by fear	10	1	1	1	8
		–	NS	X conquers fear	10	8	8	4	5
			S						
6. FEAR IS A SUPERNATURAL BEING				X is haunted by fear	4	1	1	0	9
7. FEAR IS A TORMENTOR				Fear takes the marrow out of X	1	1	2	3	7
8. FEAR IS A SUPERIOR				X is kept silent by fear	1	0	1	2	7
9. FEAR IS A DISEASE				Fear is contagious	4	3	3	0	9
10. FEAR IS A NATURAL FORCE				Fear sweeps over X	2	1	1	1	8
11. FEAR IS A SHARP OBJECT				Something is penetrated by fear	1	0	0	0	9
12. FEAR IS A NUISANCE				X is disturbed by fear	4	3	4	4	5
13. FEAR IS A FOUNDATION				Something is founded on fear	1	1	1	1	8
14. FEAR IS A POISON				Knowledge is the antidote to fear	1	0	0	0	9
15. FEAR IS A LEGACY				Fear is the legacy of the Vietnam war	1	1	1	0	9
16. FEAR IS A MACHINE				X's fear has always operated	1	0	0	0	9
Total number					110	52	71	85	

Table 2: metaphor changes

NET		TCT	
Metaphor	Rank in NCT	Metaphor	Rank in NCT
1a[–][NS]	7	2d[–][NS]	5
1b		2c[+][NS]	5
2a[+][NS]	2	3b[+][S]	1
2b[–][NS]	9	2d[–][NS]	5
2b[–][NS]	9	2d[–][NS]	5
2b[–][S]	9	2d[–][S]	6
2i[+][S]	9	2i[+][NS]	9
3a[+][NS]	9	1a[+][NS]	6
4a[+][NS]	8	2e[+][NS]	6
4c[–][NS]	9	2d[–][NS]	5
5[+][S]	9	3b[+][S]	1
5[+][S]	9	7	7
5[+][S]	9	7	7
5[+][S]	9	8	7
5[–][NS]	5	2d[–][NS]	5
5[–][NS]	5	4b[–][NS]	9
6	9	12	5
6	9	12	5
14	9	2d[–][NS]	5