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The influence of cultural universality and specificity on EFL learners' comprehension of metaphor and metonymy

Yi-chen Chen Yuan Ze University Huei-ling Lai National Chengchi University

EFL learners may face different degrees of difficulty in transferring figurative expressions between L1 and L2 due to cultural similarities and differences embedded in languages. This study explores the influence of universality and specificity of culture on EFL learners' comprehension of metaphor and metonymy. Twenty eight Taiwanese EFL learners were asked to translate 12 English sentences into Chinese. Findings indicate that the participants performed the best when English and Chinese shared the same conceptual metaphors, and performed the worst when conceptual metaphors were distinct. The findings both support and qualify the interlanguage continuum of L2 acquisition. Suggestions to integrate conceptual metaphors and metonymies so as to effectively raise EFL learners' awareness of abstract concepts are made for future empirical research.

Keywords: English as foreign language, universality and specificity of culture, metaphor and metonymy, interlanguage, comprehension.

以英語為外語的學習者常碰到第一語言及第二語言中的譬喻用語相互轉換的困難,源自於譬喻用語中蘊含著語言文化之普遍性與差異性所致·本文旨在以實證方式,研究文化之普遍性與差異性對於以英語為外語的學習者在學習隱喻及轉喻用語時的影響·參與實驗者為28位台灣籍的英語學習者;他們被要求將12句含有譬喻用語的英文句子翻譯成中文·實驗結果顯示:當英文譬喻用語的概念隱喻亦存在於中文之中時,學習者的翻譯為最佳;但當英文譬喻用語的概念隱喻與中文用語不同時,則翻譯最差·實驗結果不僅支持將中介語視為連續體的理論,亦以實證成果驗證該理論·概念隱喻應有效融入教學中,以提升語言學習者對於抽象概念的覺察及理解能力·

關鍵字: 以英語為外語·文化的普遍性與差異性·隱喻與轉喻·概念隱喻·中介語·

Introduction

Since the 1970s, cognitive linguists have become increasingly convinced that metaphor and metonymy are central to not only language but also thought.

Both metaphor and metonymy, or *figurative language*, are hence now accepted as ordinary language that manifests what people think in daily life (Lakoff and Johnson 1980). However, universality and specificity of figurative expressions that exist in languages force language learners to face a potential problem of transferability of expressions between L1 and L2. The differences that arise due to specific cultural norms or traditions of language use can lead to difficulties for language learners in transferring their native language and knowledge to L2. Danesi (1993) reported a series of studies on second language learners' learning and development of metaphoric competence and found that after three to four years of study, although students developed a high level of proficiency in L2, they continued to think in terms of their native concepts, and performed poorly on L2 metaphor comprehension and translation tasks. Difficulties that L2 learners face in metaphor and/or metonymy learning should therefore first be identified and illustrated so that solutions can be suggested.

Metaphor has been widely discussed with respect to its definition from various perspectives. For instance, Black (1962; 1993) proposes an interactive view of metaphor, taking it as one subject projecting its associated implications onto the distinct other. Grady (1997), on the other hand, suggests that the metaphor system is grounded in the body in terms of primary metaphor, a concept which brings together subjective judgment and objective senses. Lakoff and Johnson (1980) and Lakoff (1993), based on Black's interactive viewpoint, propose the contemporary metaphor theory (CMT): metaphor is considered as a conceptual mechanism that uses one domain of experience to explain and to structure another domain of a different kind, and that maps thoughts across different conceptual domains (Lakoff and Johnson 1980; Lakoff 1993).

Metonymy, on the other hand, used to be thought of as being primarily for referential purposes, that is, to use one entity to stand for another (Lakoff and Johnson 1980). However, Radden and Kövecses (1999) oppose this traditional view and argue that metonymy is a cognitive process in which one conceptual entity provides mental access to another conceptual entity within the same conceptual domain.

The contemporary definition of metaphor proposed by Lakoff (1993) and the new definition of metonymy given by Radden and Kövecses (1999) point out the similarity between the two: metaphor and metonymy are similar regarding the sources from which the concepts are obtained. Metaphor, in CMT, comprises mappings between conceptual domains whose inherent structures are mostly constructed from the cognitive topology of daily life experiences. Similarly, metonymy also relies on language users' daily life experiences to construct a conceptual model.

Since both metaphor and metonymy are based on people's knowledge of the world and life experiences, they reflect similarities and differences between cultures and between languages. People around the world, no matter which culture they are from or which language they speak, share some

common knowledge of such concepts as *love* and *life*. An interesting example to illustrate is the shared experience of connecting the feeling of drinking beer to the emotion *happiness* in English and Ukrainian (Lantolf and Bobrova 2012). In addition, human beings have universal experiences with shared physiological responses to emotional reactions. For instance, the emotion *anger* calls forth similar physiological responses, including body heat, internal pressure, or redness in the face and neck (Kövecses 2000a), and hence projects similar figurative expressions cross-linguistically as in Chinese (King 1989; Yu 1995; 1998), Japanese (Matsuki 1995), Hungarian (Kövecses 2000a; 2005), among others.

However, languages sometimes manifest specific characteristics that are exclusive to their users. Different cultures may develop their own distinctive concepts through which members of the culture interpret their experience. For example, the emotion anger can be expressed differently in different cultures: in English, anger is viewed as a hot fluid in a container, as in I've reached the boiling point, but in Chinese anger is viewed as a hot gas, as in 他氣鼓鼓的tā qì-gǔgǔ de (he gas-inflated COM 'He is inflated with anger.').¹ Such differences result from distinct medical systems of the two cultures: in the Euro-American tradition, the notion of the four humors extends to explanation of anger and the emotions (Geeraerts and Grondelaers, 1995); on the other hand, in Chinese culture, the traditional Chinese medicine and the yin-yang concept are bound up with the notion of 氣 qì (Yu 1998).

Such characteristics of universality and specificity of figurative language can project different degrees of difficulty, and hence their influences on L2 language learners are worth investigating. Indeed, how L2 learners take advantages of L1-L2 similarities and how they deal with L1-L2 differences could be observed from their interlanguage, a transitional system reflecting learners' current L2 knowledge (Selinker 1972). This study, drawing upon the theory of an interlanguage continuum, aims to explore the influences of universality and specificity of culture on EFL learners' comprehension of figurative expressions as well as on their fluency of interpretations. The results of the study will not only provide an understanding of the difficulties that EFL learners face when learning figurative expressions of English but also give concrete evidence on how universality and specificity of culture affect language learners' interlanguage. In addition, the findings will offer useful insights regarding future EFL teaching.

To illustrate the characteristics of universality and specificity, the emotion *anger* is chosen as the target and English metaphoric/metonymic expressions of *anger* are adapted in the present study. As a general kind of human emotion, *feeling angry* is considered a universal experience with shared physiological reactions (Lakoff and Kövecses 1987), which are universally owned by all human beings. At the same time, linguistic and conceptual manifestations of emotions may vary from culture to culture, as illustrated by the examples of English and Chinese. Due to the limited scale of the present

study, the emotion *anger* is specifically chosen to investigate EFL learners' comprehension.

After the introduction, relevant literature on metaphoric and metonymic expressions of *anger* in English and in Chinese will be reviewed before turning to the focus of the present research. Next, the methodology and the results of the experiment will be reported and discussed. Implications on pedagogical development are proposed. Finally, based on the findings of the study, limitations of the study and suggestions regarding larger scale empirical evidence will be presented.

Metaphor and metonymy of anger in English

Descriptions concerning the emotion of *anger* can often be found related to bodily experiences. Being angry causes increased body heat, internal pressure, and redness in the face and neck; the angry feeling then results in agitation and interferes with accurate perception. These embodied experiences yield the principle of the metonymic expression: THE PHYSIOLOGICAL EFFECTS OF AN EMOTION STAND FOR THE EMOTION (Kövecses 1990). Examples in (1) below list sentences related to this concept.

- (1) a. BODY HEAT: Don't get hot under the collar.
 - b. INTERNAL PRESSURE: When I found out, I almost burst a blood vessel.
 - c. REDNESS IN FACE AND NECK AREA: He got red with anger.
 - d. AGITATION: She was shaking with anger.
 - e. INTERFERENCE WITH ACCURATE PERCEPTION: I was beginning to see red.

The physiological effects of *anger*, especially the emphasis on body heat, form the basis of the most general metaphor for anger: ANGER IS HEAT, including the heat of fire and the heat of fluid (Kövecses 1986; Lakoff and Kövecses 1987). In addition to these two source domains, further domains have been added to the list of metaphoric source domains that characterize *anger* (Kövecses 1990; 2000b), as shown by the examples in (2) below.

- (2) a. ANGER IS A HOT FLUID IN A CONTAINER: You make my blood boil.
 - b. ANGER IS FIRE: He is doing a slow burn.
 - c. ANGER IS INSANITY: He was insane with rage.
 - d. ANGER IS AN OPPONENT IN A STRUGGLE: I'm struggling with my anger.
 - e. ANGER IS A CAPTIVE ANIMAL: He unleashed his anger.
 - f. ANGER IS A BURDEN: After I lost my temper, I felt lighter.
 - g. ANGRY BEHAVIOR IS AGGRESSIVE ANIMAL BEHAVIOR: He snapped at me.
 - h. THE CAUSE OF ANGER IS TRESPASSING: Don't step on my toes.

- i. THE CAUSE OF ANGER IS PHYSICAL ANNOYANCE: He's a pain in the neck.
- j. ANGER IS A NATURAL FORCE: It was a stormy meeting.

Metaphor and metonymy of anger in Chinese

In English, metaphors and metonymies of the emotion *anger* emphasize inherent characteristics in the prototypical cognitive models (Lakoff and Kövecses, 1987); when an offending event happens to a person and causes anger, the person attempts to control the anger but loses control anyway; then the person seeks retribution and, after receiving it, the anger ceases to exist. Such a cognitive model (i.e. offending event \rightarrow anger \rightarrow attempt to control anger \rightarrow release of anger \rightarrow restoration of equilibrium) also operates in Chinese (King 1989). However, in Chinese culture, there is a second type of model, which differs from the previous model only in the final two stages. In this model, the force of anger is diverted to various parts of the body and causes somatic effects, such as headaches or stomach aches. Afterwards, compensating events happen and balance the intensity of the offense; anger then ceases to exist. The two cognitive models of anger result in the similarities and differences in anger metaphors found in Chinese and English (Kövecses 2000b).

The general metaphoric concept that ANGER IS HEAT in English is also applicable in Chinese (Yu, 1995), and it yields two versions. One version is the heat of a fire, which is the same as that in English. The other is the heat of a gas, which is specific to Chinese culture. When ANGER IS HEAT is applied to a concrete fire, the metaphoric concept ANGER IS FIRE is quite conventional, as it is in English; examples are listed in (3) below (Examples are cited in Yu 1995; 1998):

(3) ANGER IS FIRE

- a. 你在火上加油 nǐ zài shàng huǒ jiā yóu (you PRT fire on add oil 'You're adding oil on the fire.')
- b. 他大動肝火tā dà dòng gān huǒ (he greatly move liver fire 'He flew into a rage.')

The second version of ANGER IS HEAT in Chinese is applied to gases: ANGER IS THE HOT GAS IN A CONTAINER. The metaphoric concepts consist of common knowledge about heated gas: When the heated gas is closed up in a container, it will expand and cause increasing internal pressure, with an ultimate consequence of explosion (Yu 1995); examples are shown in (4) below (examples are cited in King 1989 and Yu 1995; 1998):

(4) ANGER IS THE HOT GAS IN A CONTAINER.

a. 他憋了一肚子氣tā biē le yí dù zi qì (he hold-back PRT one belly gas 'He was filled with pent-up anger.')

b. 他在生悶氣tā zài shēng mēn qì (he PRT produce contained gas 'He felt sulky.')

Although FLUID and GAS are very different source domains, they share some basic metaphoric entailments, such as HEAT, INTERNAL PRESSURE, and POTENTIAL AND DANGER OF EXPLOSION, allowing them to be carried over from different source domains to the same target domain *anger*.

The above metaphoric expressions disclose apparent similarities of the metonymic principle between English and Chinese. Similar metonymic expressions are also common in everyday use, as shown by the examples in (5) below (examples are cited in King 1989 and Yu 1995):

(5) BODY HEAT

a. 我氣的臉上火辣辣的 wǒ qì de liǎn shàng huǒ là-là de (I gas COM face on fire hot PRT 'I was so angry that my face was peppery hot.')

INTERNAL PRESSURE

b. 他的怒氣終於爆發*tā de nù qì zhōng yú bào-fā* (he COM anger gas eventually explode 'His temper exploded at last.')

AGITATION

c. 他氣得吹鬍子瞪眼睛*tā qì de chuī hú-zi dèng yǎn-jīng* (he gas COM blow moustache glare eye 'He was so angry that he was blowing his moustache and opening his eyes wide.')

REDNESS IN FACE AND NECK AREA

d. 他們爭得個個面紅耳赤tāmén zhēng de gège miàn-hóng-ěr-chì (they argue COM everyone face-red-ear-red 'They argued until everyone became red in the face and ears.')

INTERFERENCE WITH ACCURATE PERCEPTION

e. 我氣得兩眼發黑 wǒ qì de liǎng yǎn fā hēi (I gas COM two eye become black 'I was so angry that my eyes turned blind.')

From these examples, the similarities of metonymic expressions between the two languages are obvious. The similarities show that bodily experiences are universal among languages. However, cultural models do influence linguistic manifestations. Sentences (1-e) and (5-e) are good examples to illustrate: the English example (1-e) uses see red while the Chinese example (5-e) uses 兩眼發黑 liǎng yǎn fā hēi (two eye become black 'eyes turn blind'). Both languages use perceptions of eyesight to show how anger interferes people's correct perceptions, but they adopt different colors.

Universality and specificity

Linguistic data show that speakers see themselves as undergoing similar physiological processes and responding to certain situations in similar ways.

The physiological characteristics of being angry, such as rises in skin temperature and blood pressure, are natural reactions and hence universal for all human beings. The universality of actual physiological mechanisms leads to metonymic concepts associated with bodily experiences such as body heat, internal pressure, and redness in face and neck area. These metonymies provide cognitive motivation for people to conceptualize a person metaphorically as a container under pressure, and then lead to the similarity in the metaphoric conceptualization of the emotions in various languages (Kövecses 2005).

Though languages may develop similar metaphoric concepts due to the universal embodied experiences of emotions, they instantiate the concepts in culturally specific ways. For example, in English, *anger* is conceptualized as a hot fluid within a closed container (i.e. human body). On the other hand, in Chinese, *anger* is conceptualized as a hot gas rather than a fluid. Yu (1998) speculates reasons for such specific expressions in Chinese and attributes the resource to the traditional Chinese medicine's emphasis on the notion of $\Re qi$ ('gas'), the energy flowing inside the body. In these cases, the generic level of the metaphoric concept THE ANGRY PERSON IS A PRESSURIZED CONTAINER is similar among languages; however, it is instantiated differently in different contexts and cultures.

The specificity of metaphoric concepts in languages can be attributed to different degrees of conventionalization of folk knowledge and linguistic realization. Folk knowledge refers to the shared knowledge that reflects cultural models (Kövecses 2000a). For example, compared with English, Chinese tends to use more internal organs, especially the liver and the heart, in *anger* metaphors; this tendency stems from the five-elements theory of traditional Chinese medicine, which closely relates the physiological effects of emotions to the internal organs (Yu 1998).

To sum up, metaphoric concepts can be similar across different languages at the generic level. Owing to the common physiological experiences of all humans, the generic-level metaphors are universal and culturally independent. At the same time, metaphors also have cross-linguistic variations at the specific level; these metaphors are specific and culturally dependent.

Possible relations of metaphoric and metonymic expressions across languages

As for metaphoric and metonymic expressions of the emotion *anger*, Chinese and English both have the conceptual metaphor ANGER IS FIRE and express the intensity of *anger* by showing the fierceness of the fire. The English expression *add fuel to the fire* matches the Chinese expression *b*上加油 *huð shàng jiā yóu* (fire on add oil 'adding oil on the fire'), literally and metaphorically. On the other hand, in English, smoke, which reflects anger,

Table 1. Four Possibilities of Translating Figurative Expression from One Language into Another

	Word form	Meaning of forms		Conceptual metaphor
		Literal	Figurative	metaphor
Possibility 1 Possibility 2 Possibility 3 Possibility 4	Different Different Different Different	Same Different Different Different	Same Same Same Different	Same Same Different Different

Cited in Kövecses (2005: 144, 149).

may pour out of someone's ears, while in Chinese smoke is considered to pour out of the seven apertures of the human body, as in the expression 七繁生煙 $q\bar{\imath}$ $qi\grave{a}o$ $sh\bar{e}ng$ $y\bar{a}n$ (seven apertures produce smoke 'fuming with anger'). The two expressions share the same conceptual metaphor ANGER IS FIRE but manifest it differently in their linguistic instantiations. In addition, the English expression smolder, meaning literally to burn slowly without a flame, refers to the status of suppressing anger within the heart instead of expressing it outwardly. However, in Chinese, even though the metaphoric meaning of the expression 生悶氣 $sh\bar{e}ng$ $m\bar{e}n$ $q\grave{\imath}$ (produce-contained-gas 'feel sulky') is roughly similar to the English smolder, it comes from the conceptual metaphor ANGER IS THE GAS IN A CONTAINER. The two expressions, though similar in figurative meaning, are different in their conceptual metaphors. Finally, some expressions are different in both conceptual metaphors and figurative meanings. For instance, English uses a chip on the shoulder to indicate irritation; however, there is no such an expression in Chinese to refer to the same feeling.

Based on the examples of English and Chinese metaphors and metonymies of *anger* mentioned in the previous sections, four possibilities exist in translating the same figurative meaning from one language into another: (1) same conceptual metaphor with same metaphoric expression; (2) same conceptual metaphor with different metaphoric or metonymic expression; (3) different conceptual metaphor with different metaphoric or metonymic expression; and (4) different in word forms, literal meaning, figurative meaning, and even conceptual metaphor. These four possibilities, summarized in Table 1, were also proposed by Kövecses (2005) based on his analysis of English and Hungarian examples.

The four possibilities of L1-L2 transfer regarding metaphoric and metonymic expressions may predict the possible difficulty levels for L2 learners in comprehending and learning figurative language. Possibility 1 (P1), in which L1 is similar to L2 in literal meanings, figurative meanings, and conceptual metaphors or metonymies, is assumed to be the easiest for L2 learners, since L2 learners can apply their L1 knowledge to L2. On the other

hand, Possibility 4 (P4), in which L1 is different from L2 in every aspect, is assumed to be the most difficult for L2 learners, because L2 learners must stimulate new image schemas. In other words, it is reasonable to predict that learners will face different degrees of difficulty graduating from P1 to P4 in translating expressions between L1 and L2. The learners' responses to different possibilities of figurative expressions were investigated to examine the hypotheses.

Methodology

Participants

The participants were 28 Taiwanese university students, including sophomores, juniors, and seniors. They were from different colleges, such as the College of Social Sciences, the College of Commerce, the College of Communication, and the College of Foreign Languages; none of them majored in English. Thus, they had less experience of and exposure to English culture and authentic materials than English majors. The comparatively low levels of exposure could mitigate the impact of memorization. In addition, the little experience of English materials could serve as an indication of unfamiliarity with figurative language uses.

The participants were all Chinese native speakers and had spent at least seven years learning English in school. Their general English proficiency was at the intermediate to high-intermediate level, judging from their scores on the TOEIC test. The data of the participants' general English proficiency is used to control the threshold level of the participants' competence, and thus will not be taken into consideration as a factor in this study.

Instruments

To measure the comprehension of metaphor and fluency of interpretation, a comprehension test was designed by the researchers (see Appendix 1). The test contained 12 English sentences collected from dictionaries, corpora, and the Internet;² each sentence contained a metaphoric or metonymic expression of the emotion *anger*. The sentences were modified to maintain an average sentence length of 15 to 20 words to ensure that the stimuli were similar and length would not influence the learners' judgments; moreover, the test items were pilot-tested on a group of participants with similar English proficiency level to remove ambiguous or questionable items. Before the test was put into use, all the sentences were reviewed by a native English speaker, who is a professor in the department of English of the same university and is familiar with the metaphor/metonymy theory, to ensure their grammaticality and authenticity.

Table 2. Test items of the comprehension test

Туре	Possibility 1	Possibility 2	Possibility 3	Possibility 4
Number of items $(n = 12)$	3	3	3	3
Item title	1,3, 8	2,4,6	5,7,9	10,11,12

The sentences were categorized into the four possibilities according to Kövecses (2005). Table 2 summarizes the distributions of the test items of the Comprehension Test. The participants were asked to write down their interpretations of the sentences in Chinese. They were not told about how they would be graded so as not to influence their genuine reactions to the test. However, they would be encouraged by the class teacher to focus on the meanings of the sentences rather than to give word-by-word translations. By allowing the participants to give interpretations according to meaning rather than form, their ability to interpret rather than translate could be demonstrated. The interpretations showed the participants' understanding in terms of meanings of the expressions; moreover, the participants' ability to turn L2 metaphoric/metonymic expressions into L1 equivalents also demonstrated the ways they dealt with language transfer difficulties.

Procedures

The participants first received a three-paragraph introductory passage that explained what *figurative language* was, and they were presented with two example sentences (see Appendix 2). Next, they were given another passage instructing them to read the test items and to write down the corresponding meanings in Chinese (see Appendix 1). Before starting to count time, the class teacher reminded the participants that they should give overall sentence meanings rather than word-by-word translations, and that the participants could not use any reference tools, such as dictionaries, during the test. Then the participants were given 15 minutes to finish the test and submit their answers to the teacher.

The participants' answers were evaluated by two native Chinese speakers who were advanced in English and had been teaching English in Taiwan universities for more than five years. The two raters were trained in advance to ensure the consistency of their judgments; they had also cooperated with each other once in the pilot test, and had had experience of grading. The criteria used for evaluating the participants' answers were designed and elaborated according to the discussions of the two raters and the researchers. Three elements were included in the grading criteria: meaning, form, and

comprehensiveness of the Chinese translation. The following were the grading criteria of the Comprehension Test.

- (5) The answer not only expresses the figurative meaning correctly but also shows the conceptual metaphor exactly and precisely.
- (4) The answer expresses the figurative meaning correctly. However, the participant does not seem to understand the conceptual metaphor, since his/her translation is not related to the conceptual metaphor.
- (3) The answer expresses the acceptable figurative meaning generally; the interpretation of the sentence reflects comprehensiveness of the figurative expression.
- (2) The answer expresses an acceptable sentence meaning.
- (1) The answer is wrong.
- (0) No answer is provided.

Results of the study

Two Chinese native speakers served as the raters. They first worked separately to grade the participants' answers; they were asked to keep notes on their judging processes. Later the researchers compared the grading and notes, and then indicated items whose grades showed a two-point or greater difference. The raters met again to discuss those items based on their notes and reached the agreements on the ways of grading (see Appendix 3). The finalized versions of their rating were then calculated for the inter-rater reliability to ensure that the two raters conducted consistent and correlated grading. Table 3 reports the results measured by the Spearman rank correlation. The correlation coefficient of the grades given by the two raters was 0.905, p < 0.01, which was significant at the 0.01 level with 2-tailed hypothesis. The results indicated that the grades given by the two raters were strongly correlated and demonstrated a high degree of agreement. The results reported in Table 3 appear to support the high degree of reliability and consistency of the two raters' evaluations. Therefore, the grades were used for further analyses.

Table 3. Correlation of ratings

			Rater A	Rater B
Spearman's rho	Rater A	Correlation Coefficient Sig. (2-tailed) N	1.000 28	0.905** 0.000 28
	Rater B	Correlation Coefficient Sig. (2-tailed) N	0.905** 0.000 28	1.000 28

^{**} p< 0.001, two-tailed.

Table 4. Descriptive statistics of the participants' performances on four possibilities

	Mean	Std. Deviation	N
Possibility 1	3.935	0.781	28
Possibility 2	3.714	0.615	28
Possibility 3	2.589	0.871	28
Possibility 4	2.083	0.781	28

The mean scores were rounded off to three decimal places.

Table 5. Summary of the ANOVA Test

	6 6	16	3.6	
	Sum of squares	df	Mean square	F
Between Within	66.267	3	22.089	40.782***
Category	19.749	27	0.731	
Error	43.872	81	0.542	
Total	129.888	111		

^{***} p = 0.000.

Table 4 shows the mean score of the test items belonging to each possibility. The results indicate that the 28 participants received the highest average scores on test items belonging to Possibility 1 (P1) and the lowest average scores on test items belonging to Possibility 4 (P4). The average scores on test items belonging to Possibility 2 (P2) and Possibility 3 (P3) ranked second and third, respectively. In summary, the ranking appears to support the assumption of the study: EFL learners face different degrees of difficulty graduating from P1 to P4 in transferring expressions from L1 to L2.

Although the ranking of the mean scores of the four possibilities shows the tendency of difficulty levels for EFL learners, the question of whether the differences among the mean scores were significant is not yet answered. Thus, a one-way analysis of variance (ANOVA) test was employed. Table 5 summarizes the results of the ANOVA test. As the significant level associated with the observed value of F was less than 0.01, the null hypothesis that all the means were equal was rejected. The results suggest that at least one of the four mean scores was significantly different from the other three.

Whether particular means are significantly different from each other is not yet shown. A post hoc analytical comparison was conducted to determine further the differences between the four possibilities, as shown in Table 6. According to the statistics, P1 was significantly higher than P3 and P4, but not P2. P2 was significantly higher than P3 and P4; furthermore, P3 was significantly higher than P4. The results ranking from relatively higher to relatively lower were P1, P2, P3, and, finally, P4. The statistical results suggest

Table 6. Pairwise comparisons

(I) Possibility	(J) Possibility	Mean Difference (I-J)	Std. Error
1	2	0.220	0.192
	3	1.345*	0.226
	4	1.851*	0.192
2	1	-0.220	0.192
	3	1.125*	0.165
	4	1.631*	0.193
3	1	-1.345*	0.226
	2	-1.125*	0.165
	4	0.506*	0.207
4	1	-1.851*	0.192
	2	-1.631*	0.193
	3	-0.506*	0.207

^{*} The mean difference is significant at the 0.05 level.

that it was easier for L2 learners to interpret metaphoric expressions that shared the same figurative meanings and conceptual metaphors. Conversely, to interpret metaphoric expressions that were different from their L1 in every aspect caused the greatest difficulty for L2 learners.

Discussion

Regarding the research question of whether EFL learners face different degrees of difficulty in transferring expressions from L1 to L2 due to the characteristics of universality and specificity between cultures and languages, the statistical results reported in Table 4 and Table 5 have given a positive answer. The ranks of the mean scores of the four possibilities from the highest to the lowest were P1, P2, P3, and P4. Table 6 provides further information of the rankings; for example, P1 was significantly higher than the others, except for P2, and P4 was significantly lower than all the other three possibilities. Thus, the assumption that the degrees of difficulty to EFL learners should increase from Possibility 1, the easiest, to Possibility 4, the hardest, is also confirmed. Regarding the difficulties learners encountered and the ways they reacted to these difficulties, qualitative findings were analyzed and discussed.

EFL learners were capable of utilizing L1 knowledge to comprehend English figurative expressions that shared the same figurative meanings and conceptual metaphors with the Chinese correspondences

The findings show that the participants performed the best in interpreting English metaphoric expressions that shared literal meanings, figurative

meanings, and conceptual metaphors with Chinese. The similarity of terms in both languages made the mapping process clearer so that the participants could easily find the related conceptual metaphor and achieve satisfactory scores. For example, the term <code>gnashed his teeth</code> was at times translated as 咬牙切齒 yǎo-yá qiè-chǐ (bite-teeth tighten-teeth 'bite teeth angrily with a tightly closed mouth'). The participants related the image of teeth biting to the <code>anger</code> emotion easily because such metonymic expressions are commonly seen and frequently used in Chinese; similar terms such as 氣得牙癢癢 qì de yá yǎng yǎng (anger COM teeth itchy itchy 'so angry that the teeth in the mouth are itchy and want to be grinded') were also very common.

The term add fuel to the fire in Sentence 2 and the term cool down in Sentence 3 are both related to the conceptual metaphor ANGER IS FIRE and ANGER IS HEAT, respectively; both are used in English as well as in Chinese. Thus, the participants had consistent interpretations of these two terms: The term add fuel to the fire was translated into 火上加油 huǒ shàng jiā yóu (fire on add oil 'adding oil on the fire') and the term cool down was translated into 冷靜下來 lěng jìng xià-lái (cold calm down 'calm down'). Some participants, even though not pointing out the conceptual metaphors directly, gave the figurative meanings correctly, such as 讓事情惡化 ràng shì-qíng è-huà (let thing worsen 'make things worse') to the term add fuel to the fire, and 緩和情緒 huǎn hé qíng-xù (slow-down alleviate emotion 'ease the mood') to the term cool down. Their answers suggest that since the L2 expressions were similar to those in L1 in every aspect except for word forms, the expressions made it easier for L2 learners to link to their construal of experiences and to interpret the expressions with their learned knowledge.

Though the mean scores of P1 were higher than the scores of P2, the differences between the two possibilities were not statistically significant. It seems that the existing differences of literal meanings between L1 and L2 did not hinder the participants' comprehension. The term *smoke was pouring out of his ears* in Sentence 4 shared the same conceptual metaphor ANGER IS FIRE with Chinese but was worded differently: in Chinese, the angry smoke comes out from seven apertures rather than from the ears. However, most participants managed to translate the term as 七類生煙 qī qiào shēng yān (seven apertures produce smoke 'fuming with anger'), which interpreted correct figurative meanings with the conventional Chinese wording, while only a few wrote 氣得冒煙 qì de mào yān (gas COM rise smoke 'so angry that emits smoke'), which stuck to the literal expressions in English and ignored the Chinese collocation.

The same situation also happened in Sentence 5 and Sentence 6. The term hit the ceiling in Sentence 5 was translated into 暴跳如雷 bào tiào rú léi (violent jump like thunder 'to be hopping mad'), 怒髮沖冠 nù fǔ chōng guan (anger hair lift hat 'so angry that one's hair lifts up one's hat'), or 火冒三丈 huǒ mào sān zhàng (fire rise three zhàng 'anger is flaming up as high as ten meters') by the participants. These Chinese terms matched the original figurative meaning about anger properly. At the same time, the terms showed the image of the

conceptual metaphor, which conceptualized the angry fire as breaking through a boundary, by utilizing the terms 跳 *tiào* ('jump'), 沖 *chōng* ('lift up'), and 冒 *mào* ('rise'), which entail the concept of *out*.

On the other hand, for the term *blue in the face* in Sentence 6, participants managed to translate the English expression into Chinese as 面色鐵青 *miàn sè tiè-qīng* (face color iron-green 'Pale but grim face')³ or 面紅耳赤 *miàn hóng ěr chì* (face red ear red 'So angry that the face and ears become red') instead of directly translating *blue* into 藍 *lán* ('blue'). The choices of *hóng* 'red' and *qīng* 'green' by the participants reflect a very interesting cultural variations regarding color terms (Berlin and Kay 1969). According to the hierarchy of color terms claimed by Berlin and Kay, both *red* and *green* are more basic than *blue*, and are more prevalently found in languages. Those who translated this example into *green* have a better grasp of the linguistic and cultural specifics of Chinese and English, while those who translated this example into *red* employed their universal embodied knowledge shared by Chinese and English.

Evidence of universality of culture can also be detected from the participants' answers. The variety of their answers indicates that the participants not only understood the meanings of the expressions but also were capable of interpreting the meanings in their own words. The flexibility of interpretation in their translations again suggests that L2 learners were able to use their construal of experiences and knowledge of the native language to express similar figurative meanings in conventional L1 terms instead of rigidly adhering to word forms.

In addition to the answers that reflected the participants' understandings of conceptual metaphors, some participants, although sensing the various degrees of anger, still tended to express figurative meanings in a more literal way, such as 極度生氣 jí dù shēng qì (extreme degree produce gas 'extremely angry') or 很生氣 hěn shēng qì (very produce gas 'very angry'). Those participants utilized degree intensifiers to enhance literal meanings instead of using specific metaphoric interpretations, probably because they attempted to comprehend the whole sentences based on context clues. For example, Sentence 5 gave background information that someone's daughter was beaten by a school teacher and thus he hit the ceiling. The participants might have been able to figure out the general sentence meaning even though they did not know the exact meaning of the metaphoric expression.

EFL learners relied on clues in words and sentences to look for interpretations of English figurative expressions that had different conceptual metaphors from Chinese

Faced with expressions that gradually and increasingly diverged from those of their native language, the participants seemed to rely more on context clues to interpret unfamiliar metaphoric expressions. For example, in Sentence 7,

People had finally reached the boiling point as the price of oil kept rising, the expression reach the boiling point was translated into 忍無可忍 rěn wú kě rěn (endure not capable endure 'beyond endurance') or 怨聲載道 yuàn shēng zǎi dào (complaint sound again are-said 'complaints are heard everywhere') due to the context about the rising price. A similar example was found in Sentence 8: After the big fight with his girlfriend, Dave smoldered for days and didn't talk to her. The metaphoric expression smolder was interpreted as 冷戰 lěng zhàn (cold war 'give the silent treatment') by the participants. For one thing, the context of the sentence provides a vivid scene of a quarrel between a couple; therefore, the participants easily associated the possible result: to sustain the silent treatment for days. For another, the word smolder is a relatively rare word which does not belong to the most-frequent 7,000 vocabulary items (College Entrance Examination Center, Taiwan 2002). Since the participants did not know the English word, they could only guess the meaning from the context.

In Sentence 9, even though some participants managed to interpret the term *explode* as 爆發 *bào fā* (explode up 'anger erupts'), whose meaning was literally the same as in English but was different conceptually between heated fluid in English and hot gas in Chinese, many participants wrote 崩潰 bēng-kuì (collapse 'break down'). The reason might be attributed to the context of the sentence: *Feeling shocked by her husband's disloyalty, she exploded at last and cried out*. The term *cry out* is easily associated with emotional breakdown, as in 崩潰大哭 *bēng-kuì dà kū* (collapse big cry 'break down and cry out').

As for encountering metaphoric expressions that were different from Chinese in every aspect, the participants' interpretations varied. The term *gave him a tongue-lashing* in Sentence 10 was comprehended as 小心翼翼的告訴他 xiǎo xīn yì-yì de gào-sù tā (small heart cautious COM tell him 'Tell him something carefully') or 下封口令 xià fēng kǒu lìng (give close mouth command 'Command someone to shut their mouth') to match the context of telling others family secrets. Likewise, the term *made my gorge rise* was interpreted as 同情 tóng qíng (same emotion 'Sympathize') or 憤怒不平 fen-nù bù píng (anger not tranquil 'Too angry to calm down'), since the context of the sentence was about abused foreign brides. However, some answers seemed to come from images of words, such as 訓斥 xùn chì (train blame 'rebuke') from the word tongue and 食不下嚥 shí bú xià yàn (food not down swallow 'too emotional to eat') from the word gorge. Both tongue and gorge relate to images of mouth and eating, respectively, and thus are associated with the concepts of speaking and swallowing.

The dependence on images of words can also be seen in Sentence 12 with the term *had a chip on his shoulder*. The diverse answers implied that the participants tried to interpret the terms by focusing on different points. Answers such as 肩膀有傷 *jiān-băng yǒu shāng* (shoulder have injury 'shoulder injury'), 壓力很大 *yā-lì hěn dà* (press-power very great 'great pressure'), and 疲憊 *pí-bèi* (tired 'feel exhausted') might be based on the word *shoulder*. In Chinese, things on the shoulder are often related to pressure and exhaustion,

such as 肩上扛著重擔 *jiān shàng káng zhuó zhòng dàn* (shoulder on carry COM heavy burden 'shoulder the burden/responsibility') and 肩負重任 *jiān fù zhòng rèn* (shoulder take heavy responsibility 'sustain great responsibilities'). Other answers, such as 鼓起勇氣 *gǔ-qǐ yŏng-qì* (pluck-up courage 'get up the courage') and 據理力爭 *jù lǐ lì zhēng* (ground reason power dispute 'fight for something with ground reasons'), might be based on context clues of the sentence that an athlete argued with his coach about the exhausting training.

Such heavy reliance on context clues of sentences as well as image clues of words suggests that the participants indeed encountered difficulty when translating expressions that carried different conceptual metaphors from the Chinese correspondences, namely the expressions belonging to Possibility 3 and Possibility 4. Distinctions of conceptual metaphors/metonymies forced L2 learners to utilize L1 knowledge in order to interpret knowledge of the target language. Evidence of cultural specificity thus can be seen in the participants' answers.

Implications

The participants' different performances regarding different possibilities of translating figurative expressions between L1 and L2 may indicate that the interlanguage system of L2 learners is not stable and fixed, but rather dynamic and fluctuating. The interlanguage system represents the temporary mental process responsible for L2 acquisition; it shows a series of associated systems that characterize the learning progress over time (Ellis 2002). Bardovi-Harlig (1999) postulates that the interlanguage system should be deemed as a continuum. One end on the continuum is L1 and the other is L2. While L2 learners become more advanced in terms of L2 proficiency, they are gradually reducing impacts caused by L1; the interlanguage position then moves nearer the L2 end on the continuum.

The findings of the present study appear to support this claim of the interlanguage system. The performances of the participants ranged along different stages on the L1-L2 continuum: for the expressions belonging to Possibility 1, in which L2 shares many similarities with L1, learners can utilize their existing knowledge to facilitate L2 comprehending. For those L2 expressions which differ considerably from L1, learners would need time to accumulate knowledge and experiences in order to not only reduce L1 interferences but also improve L2 understanding. The interlanguage system thus could be manifested as universal properties between L1 and L2 during the L2 acquisition process.

The findings of the study also qualify the theory by unraveling the EFL learners' interlanguage system regarding linguistic and universality and specificity of culture through a translation task. The participants were capable of utilizing their knowledge of daily life experiences as well as their knowledge of the native language to interpret and comprehend metaphoric/

metonymic expressions in the target language. They were not restrained by word forms of the target language; instead, their translations showed that they comprehended the meanings and expressed similar meanings in their native language with culturally conventional forms and collocations. Through the observations of the answers, the participants' interlanguage can be characterized by universality and specificity of culture in a more concrete way.

Moreover, the findings of the study suggest that culturally universal concepts could assist learners to link similar concepts in L1 to L2 and thus enhance comprehension. However, sometimes learners might not detect the similarities effectively, thus looking for context clues for help and giving general interpretations of the expressions. To encourage learners to take advantage of the existence of universal concepts, explicit teaching may enhance learners' awareness and facilitate their cognitive processes. Deignan, Gabryś and Solska (1997) proposed an activity of cross-linguistic comparison – L1-L2 translation – to help learners avoid the ambiguities of L1-L2 transfers. They claimed that through comparing L1 and L2 expressions, learners will be alert to the fact that what exists in L1 does not always exist in L2, and will know not to take similar or equivalent L2 expressions for granted. Likewise, Dong (2004) also suggested that L2 teachers cultivate an environment for learning about cross-cultural metaphors, where learners are encouraged to share metaphors used in their native language and to compare and contrast the metaphors in the target language. In this way, teachers do not need to have a full command of the native languages that students speak; this will allow them to focus on metaphoric language and the cultural conventions behind the metaphors.

However, enhanced awareness of universality of culture is not enough to overcome the impediments for L2 learning caused by cultural specificity. The situation is worse in foreign language learning contexts in which the culture of the target language is very different from that of the native language because learners have few opportunities to acquaint themselves with the L2 culture. The traditional way to solve this problem in an FLT context is through memorization or rote learning. Nevertheless, the findings of this study show that learners still face difficulties when encountering unfamiliar or unlearned terms.

To facilitate learning as well as to bridge the gaps between two languages, ways of applying pre-existing knowledge to unfamiliar terms should be taught explicitly. The idea of teaching conceptual metaphor in a foreign language classroom has been supported by researchers (Boers 2000a, b; Charteris-Black 2002; Littlemore and Low 2006; Kömür and Çimen 2009). In the case of learning figurative expressions of the emotion *anger*, Boers (2000a) particularly suggests that to understand conceptual metaphor (or in his term, *metaphoric theme*) by referring to their correlates in physical experiences may improve learners' in-depth comprehension, since embodied experiences of the emotions are in some ways universal for language users and thus may facilitate comprehension of the expressions. However, instruction about

conceptual metaphor is needed when encountering figurative expressions whose conceptual metaphors are different from or absent in L1 (Kövecses 2000b; Littlemore and Low 2006; Musolff 2006) and thus are difficult to manifest the mapping process (MacArthur 2010).

To assist L2 learners in bridging the missing gaps, Musolff (2006: 33) proposes the idea of adapting a *metaphor scenario*, a set of assumptions about descriptive aspects of a source-situation, as a complement to studying metaphoric mappings. For instance, in the sentence "The possibility that Britain's separation from the European exchange rate mechanism will end in divorce may have increased yesterday [...]," the LOVE–MARRIAGE–FAMILY scenarios should be implemented to comprehend the figurative uses of the term separation and divorce. Moreover, to make Musolff's proposal more concrete for use in the language classroom, Kövecses' (2001) suggestion of explaining the mapping relationships between the target and source conceptual domains can present the metaphor scenarios in a more systematic way. If two languages have the same conceptual metaphor but different linguistic instantiations, ontological mappings that characterize correspondences between basic elements in the source domain and in the target domain may help learners to create links between distinct linguistic expressions of the two languages. If two languages have different conceptual metaphors, or if one has a conceptual metaphor that does not exist in the other, epistemic mappings can carry over knowledge about elements in the source domain to elements in the target domain, helping learners to relate their knowledge of the used and abstract half to the unused and concrete half. For instance, English wet blanket and Hungarian ünneprontó 'festivity-breaker' come from different conceptual metaphors: wet blanket comes from ENTHUSIASM IS FIRE metaphor and ünneprontó comes from STATE IS FUNCTIONAL OBJECT metaphor. However, both expressions show the causes of the end of the state. Learners use their familiar knowledge of the domain FIRE and link it to the unfamiliar domain FUNCTIONAL OBJECT; the used and familiar part of the mapping will serve as a trigger for the learner to identify the matching half in an existing conceptual metaphor (Kövecses, 2001).

In sum, EFL teachers should not rely merely on traditional rote learning and memorization; instead, they should try to raise EFL learners' awareness of abstract concepts involved in metaphoric expressions through the explicit indication of conceptual metaphors and mapping processes between concepts.

Limitations of the study and suggested research

Due to the scale of the study, the number of the subjects and the variety of their backgrounds were limited. In addition, since figurative language is considered a cognitive language process, the participants' individual

differences regarding cognitive styles might have influenced their performances in comprehension. Other variables relating to the participants, such as their personality types or their learning history, may also have potential impacts on the participants' performances.

In addition, the style of the comprehension test and the instruction given to the participants may cause some confusion. The style of the test seemed to ask the participants to perform a translation task; however, the instruction directed the participants to write down their interpretations of the sentence meanings. The participants may experience a policy choice between writing an appropriate L1 translation and retaining a flavor of the original L2 text. Their choices of the policy may result in different grading. Such a dilemma has been mitigated through additional explanations of the test instruction and encouragements of interpretation given by the class teacher; still the situation might bring a certain impact on the results of the study.

Moreover, it is possible that the participants' performance might be compromised by other extraneous factors, such as the order of the sentences on the comprehension test and the participants' answering speed. The sentences of Possibility 4 were the last three sentences appearing in the test, while the sentence of Possibility 1 and Possibility 2 appeared in the first four sentences; the participants might perform worse in the last few sentences due to time limitations. That result may drag down the overall score of Possibility 4 and even of Possibility 3.

However, the findings of the present study still provide valuable insights into the influences of cultural differences on L2 learners' comprehension, and thus suggest directions for future empirical research. For one thing, the present study examines the validity of the test designed to measure comprehension; the data resulting from the comprehension test allow us to suggest a number of modifications to future versions of the test. The order of the test items should be more thoroughly randomized in order to avoid the possible effects of tiredness. In addition, some test items provided obvious context clues, which might have influenced the participants' interpretations and hindered their judgment of using conceptual metaphors. In order to examine the comprehension of the metaphoric or metonymic terms, sentences that cannot be interpreted simply based on context clues should be developed in a future study. For another, future research could take those variables regarding individual differences into consideration, since the differences may have potential impacts on the participants' ability to comprehend figurative language.

Finally, the findings of the study suggest that integrating ideas of conceptual metaphors and metonymies and their mappings into EFL teaching may facilitate learners' awareness and comprehension of figurative language. Future research could implement the ideas in real classroom settings and examine the learning effects of learners through empirical investigations.

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Notes

- 1. The Chinese examples cited in the study are provided with English transcriptions, word-for-word glosses, and English translations. The transcriptions follow the Hanyu Pinyin system. The glosses follow Yu's (1998) system in which some grammatical markers are noted as abbreviations instead of direct translations. For example, COM stands for *complement marker* and PRT refers to *particle*.
- 2. The sentences containing figurative expressions of anger used in the Comprehension Test were collected mainly from three sources: dictionaries, such as *The American Heritage Dictionary of Idioms for Students of English*; corpora, including the British National Corpus (BNC) and the Corpus of Contemporary American English (COCA); and the Internet websites, such as Your Online Idiom Dictionary (http://www.idiomeanings.com/idioms/) and The Free Dictionary (http://www.thefreedictionary.com/). The sentences were revised and rewritten to control an average sentence length. A native English speaker reviewed the modified sentences to confirm grammaticality and authenticity.
- 3. The Chinese color word 青 qīng 'green' can sometimes refer to the color blue, as in 青天 qīng-tiān 'blue sky', or to the color black, as in 青絲 qīng-sī 'black hair'. In the past, 青 qīng was used to refer to a type of color scheme, which encompassed the cool-tone color family, with black and green, as against the warm-tone color family, with red and yellow. These days, the color reference of 青 qīng depends on the context the word is used. In the case of the present study, the expression 面色鐵青 miàn sè tiě-qīng (face color iron-green 'Pale but grim face') specifically refers to a color which is close to dark green; the four-character expression means the extremely angry situation. (The interpretations of the Chinese terms are cited in the online Revised Mandarin Chinese Dictionary of Minister of Education, R.O.C., 1994).

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email: yicc@saturn.yzu.edu.tw hllai@nccu.edu.tw [Received 25 January 2013]

Appendix 1

Comprehension test

以下共有12句英文句子。請解讀句子的含意,並以中文將句子的意思寫出來。

The following are 12 sentences. Please read each sentence carefully, interpret its meaning, and write down the meaning in Chinese.

- 1. When he found out he was not going to be promoted, he gnashed his teeth
- 2. She is very angry now; your insincere apology will just add fuel to the fire.
- 3. Tempers have cooled down a bit and I hope we could sort things out.
- 4. Smoke was pouring out of his ears when he heard he was fired for no reason
- 5. He hit the ceiling when knowing that his daughter was beaten by a school teacher.
- 6. Bill was blue in the face and shouted at Jack in a loud voice.
- 7. People had finally reached boiling point as the price of oil kept rising.
- 8. After the big fight with his girlfriend, Dave was smoldering for days and didn't talk to her.

- 9. Feeling shocked by her husband's disloyalty, she exploded at last and cried out.
- 10. His mother gave him a tongue-lashing for telling others the family secrets.
- 11. It made my gorge rise when hearing how foreign brides were abused by their spouses.
- 12. Jack had a chip on his shoulder and argued with his coach about the exhausting training.

Appendix 2

Introductory passage: the Chinese version and its corresponding English version

英文中,有些用語無法單純從字面上來解讀它的意思。這些用語必須借助「譬喻」的想法,建立「所使用的文字」與「被描述的主題」之間的邏輯關係,才能夠了解它的意義。

舉例來說,戀人之間有時會出現這樣的對話:『Look how far we've come!』這句話單純從字面上解讀,意思是『看看我們已經走多遠了!』但實際上這句話並非要表達行走的距離;要了解這句話的真正涵意,必須要借助「譬喻」:兩個談戀愛的人,一起朝共同人生目標前行。對於戀人來說,這句話應該解讀為『看看我們兩個共同經營這段戀情已經這麼久了!』

又比如説,戀人之間的對話:『We need to spin our wheels to overcome this.』字面上翻譯為『我們需要轉動輪子來克服這件事。』但實際上戀人之間並沒有「輪子」這種東西存在。要了解這句話的真正涵意,一樣得要借助「譬喻」:對戀人來說,在戀愛過程中可能會因為問題而陷入僵局,這時就需要兩人努力才能克服難關,維繫關係。因此這句話對戀人來說,應該解讀為『我們要共同努力來克服這件事。』

Some expressions cannot be understood from their literal meanings. They need to be interpreted metaphorically, i.e., readers need to create links between the targets which are described and the words/phrases which are used in the idiomatic expressions.

For example, people sometimes tell their lovers, "look *how far we've come!*" The expressions show the relationship between love and a journey: the fact that two people travel together with a common destination is like the fact that two people in love live together to pursue a common life goal.

Another example: "We need to *spin our wheels* to overcome this." When two travelers get stuck by impediments, they have to spin the car wheels to get the vehicle moving again; on the other hand, when two lovers encounter difficulties in their relationship, they need to fix it and make it move again. In

these two examples, "love" is metaphorically related to "journey"; readers need to interpret the expressions metaphorically.

Appendix 3

Example of the grading process: notes of the discussion between the two raters

Item 1. When he found out he was not going to be promoted, he gnashed his teeth.

Answer of Participant No. 16: 當他發現他不能準時時他<u>咬緊牙</u>. *Dāng tā fā-xiàn tā bù-néng zhŭn-shí shí tā yǎo-jǐn yá*. (when he discover cannot punctuate PRT he bite-tight teeth 'When he found out that he could not be punctual, he bite his teeth tightly.')

Rater 1's comment:

咬緊牙 \rightarrow literal translation. No intention of showing anger. (1) ('yǎo-jǐn yá is a literal translation rather than a figurative explanation. I see no intention to show the emotion of anger from such an interpretation. Therefore I decide to give a score of 1.')

Rater 2's comment:

此答案我給分為(3)其實有掙扎想 code 為(1)雖然該生沒有直接點出生氣的 figurative meaning,但他有寫出<u>咬緊牙</u>,我覺得他/她的解讀有達到該詞的大概,所以我最後決定 code 為可接受的含意(3).

('I give the answer a score of 3 even though I once wanted to give it a score of 1. The participant does not demonstrate the figurative meaning of *anger* directly. However, he/she does mention concepts of *teeth* and *bite*. In my opinion, he/she has expressed an general meaning of the sentence, and the interpretation is acceptable. Therefore, I decide to give him/her a score of 3.')

Researcher's note: Scores given by Rater 1 (1) and Rater 2 (3) show a two-point difference. Thus a discussion should be carried out.

Agreement on the answers of the test item after discussion: 咬緊牙、懊惱 (2) 不悦 (3) 生氣、氣炸了、憤怒 (4) 恨/氣得咬牙切齒 (5)