

Emotion and rationality in Mandarin Chinese and German: Force schema and life-form metaphors

Hsieh, Ching-Yu

1. Introduction

Animals and plant species have biological features similar to those of humans. In Lakoff and Turner's 'Great Chain of Being' metaphor, human beings are ranked at the highest order, followed by other animals, and finally, plants. Human, animal and plant metaphors play important role in languages; they are all life-form metaphors. This paper aims to examine the different semantic roles of animal and plant metaphors in languages by means of two different cognitive models. The metaphors of two unrelated languages, Chinese and German, were chosen to demonstrate that the psychobiological basis and the conceptions work analogically in both languages.

A *metaphor* is defined in this study as any Mandarin Chinese or German expression that encodes at least one animal or one plant name, in which the animal or plant name does not refer to the animal or plant itself, but has a figurative meaning. We do not distinguish between metaphor and metonymic blending for the debate on metaphor goes back over two millennia to Aristotle's time. Space precludes a full-scale discussion of the issue. See, for example, Searle (248-285) and Lakoff & Turner (100-139, 217-218) for definition and discussion of metaphors.

Lévi-Strauss's insight about the consistent application of animal and plant species in cultural symbolism was that "as they are so easily fixed in the mind, they conveniently serve to anchor more fluid symbolic thoughts" (2). Animal and plant names are "catching" candidates to represent our fleeting thoughts. In Lakoff and Turner's Great Chain of Being metaphor, human beings are ranked at the highest order, followed by other animals and then plants, in languages. There are noteworthy treatises that delve into plant concepts in human cognition. Atran (219) assumes that plant names are convenient choices for describing humans or human society. Wen, Meng and others study plant expressions in *Shijing* (The Book of Odes) and reveal historical cultural life in the Zhou Dynasty. Atran (217) expresses

that “totemism, myth, religion and other speculative activities of the mind do constitute well-defined cognitive domains”.

Linguists have also noticed the common use of animal metaphors in our languages (e.g., Craddick and Miller; Claiborne; O'Donnell; Hsieh, “Cat Expressions in Mandarin Chinese and German”). Most research has focused on their negative connotations; for example, Fraser examines insulting terms using animal names in eleven languages. The aim is to inspect if the informants have equivalent usage in their native languages as the English stupid-donkey, coward-chicken, sneaky-snake, mean-dog, nasty-rat and dirty-pig. One of the results shows that stupid-donkey and dirty-pig are more widespread while nasty-rat is not. According to Low and Newmark, animal metaphors are largely used to describe inferior or undesirable human habits and attributes. Fontecha and Jiménez Catalán concentrate on the word pairs *fox/vixen* and *bull/cow* and their Spanish counterparts *zorro/zorra* and *toro/vaca*. They examine the data from dictionaries to investigate the semantic derogation of the related animal metaphors. They found that, with mapping from source to target domain, the main metaphorical meanings of the female terms connote worse qualities than those connoted by the metaphors of the male terms.

Albeit all these research, the motivation and the cognitive model of such negative usage of animal metaphors as well as the use of plant metaphors, however, has not been given sufficient attention thus far. In the following comparison between animal and plant metaphors, this issue will become clear.

2. Research framework

The present paper is an extension of Hsieh (“The Emotive and Ruminative Expression”). Hsieh studies animal and plant metaphors in light of the approaches of Kövecses (lay views vs. scientific theories, *Emotion Concepts*) and Halliday (model of verbal processes). She found that the generating point of animal and plant metaphors and the impression that speakers have toward that specific animal or plant is often in different generic levels. In both Chinese and German, animal metaphors are used as active expressions whereas plant metaphors are used as static ones:

Animal metaphorical vehicles → active expressions

Plant metaphorical vehicles → static expressions

Active expressions show stronger feelings, while static expressions usually offer rational advice. This is the hypothesis of the present study. The theoretical background of the following research is force schema (Talmy, “Force Dynamics”; *Toward A Cognitive Semantics*). This approach should be made clear first. Talmy (“Force Dynamics,” 53) describes the force schema that:

The primary distinction that language marks here is a role difference between the two entities exerting the forces. One force-exerting entity is singled out for focal attention—the salient issue in the interaction is whether this entity is able to manifest its force tendency or, on the contrary, is overcome. The second force entity, correlatively, is considered for the effect that it has on the first, effectively overcoming it or not.

Two force entities are employing, interacting and competing, and accordingly show their different roles in language. Based on this characterization, Talmy specifies some factors such as intrinsic force tendency (i.e. toward action, toward rest/inaction) and two force entities in the force schema: Agonist and Antagonist. The Agonist is the focal force entity and the Antagonist is the force element that opposes the Agonist (Talmy, *Toward A Cognitive Semantics*, 413). Many linguists (e.g., Lakoff; Kövecses, *Emotion concepts, Metaphor and Emotion*) consider this schema one of the basic image schemas that structures human conceptual system. Do animal and plant names in human languages coincide with this cognitive linguistic theory? We will probe this issue in the present paper.

Most of the raw data of this study are collected from *Academia Sinica Ancient Chinese Corpus*, *Academia Sinica Balanced Corpus of Mandarin Chinese*, *Duden Großwörterbuch English*, and the German *Corpus Search, Management and Analysis System* (COSMAS). The spoken data were observed and gathered from daily conversation with native speakers over the past two years. We have collected 2637 animal metaphors, 3558 plant metaphors in Chinese, 2550 animal metaphors, and 3232 plant metaphors in German. They are compiled in our corpora of animal and plant metaphors for comparing and analyzing. For both Chinese and German examples that are given in this article: morpheme-by-morpheme or word-by-word glosses that show the original structure or imagery are provided between single

quotes, and idiomatic translations are given after the *equal* sign, for example, *kai-xin-guo* 開心果 ‘open-heart-fruit = someone who has a tendency to create a happy atmosphere and cheer others up’.

The organization of this article is as follows: (1) Introduction, (2) research framework, (3) the identification of the cognitive model of the respective semantic usages by means of the force schema in which two sections are presented, namely, (3.1) the scenarios for using animal and plant metaphors, and (3.2) emotion and rationality shown in force schema, and finally (4) the proposal of the socio-pragmatic role of these metaphors.

3. Force schema and life-form metaphors

This section delves into the motivation and the cognitive model of the specific semantic usages that plant metaphors display our rationality and animal metaphors show our emotions. The force schema will be applied to these two life-form metaphors. The discussion starts with animal metaphors and follows by plant metaphors.

3.1. The scenarios for using animal and plant metaphors

Animals form the second highest level in Great Chain of Being metaphor (Lakoff and Turner 170-). Their outer appearances, habits, and behaviors are often encoded in metaphors for the purpose of describing these aspects of human beings. Most animal metaphors are used as blunt insult terms to harshly express strong emotions and values (Hsieh, “The Corpora of Mandarin Chinese and German Animal Fixed Expressions,” 33). For example, when one is very angry, he might use animal metaphors like those in example (1). More than 70% of animal metaphors have negative connotations or are even taboo (e.g., Low; Newmark; Sutton; Hsieh, “The Corpora of Mandarin Chinese and German Animal Fixed Expressions”).

(1) Insult terms:

- a. *lang-xin-gou-fei* 狼心狗肺 ‘wolf-heart-dog-lung = rapacious as a wolf and savage as a cur; cruel and unscrupulous’
- b. *blöde Kuh* ‘idiotic cow = bitch’

Primitive peoples attached an intrinsic importance to animals because, as food, they were supposed to arouse man's spontaneous interest (Brown 1929 in

Lévi-Strauss 1-2). Feeling hungry and looking for food are all inherent animal nature, just like having emotions. Human animals and other animal species share the so-called “bestial instincts” (Lakoff and Turner 168), it is not surprising that both German and Chinese have a good number of animal metaphors concerning insults and showing other emotions.

A variety of semantic categories use animal metaphors to express emotions. Let us first look at Chinese example (2) secular benediction, (3) humble remarks, and (4) love related expressions. Secular benedictions offer joyful wishes on various of occasions; for example, (2a) *long-teng-hu-yue* 龍騰虎躍 is used to praise a lively and cheerful performance, particularly in a ceremony, (2b) *long-feng-cheng-xiang* 龍鳳呈祥 is a blessing to newlyweds, and (2c) *hong-tu-da-zhan* 鴻圖大展 is used in a congratulatory speech to people who start a business. Humble remarks show the speaker's modest reaction to praise; for example, (3a) *diao-chong-xiao-ji* 雕蟲小技 refers to one's own performance and humbly gives a response that the performance was much too insignificant and therefore not worth mentioning. In (3b) *man-zhi-tu-ya* 滿紙塗鴉 is used to speak humbly of one's own writing, and (3c) *xiao-quan* 小犬 (little dog) is a former courtesy meaning 'my son'.

Chinese speakers have love-related expressions to show the love between lovers (4a), and between parents and children: (4b) shows filial piety and (4c) speaks of parents' love for their children.

(2) Chinese secular benedictions:

- a. *long-teng-hu-yue* 龍騰虎躍 ‘dragon-rise-tiger-leap = a scene of bustling activity’
- b. *long-feng-cheng-xiang* 龍鳳呈祥
‘dragon-phoenix-present-auspicious = prosperity brought by the dragon and the phoenix; in extremely good fortune’
- c. *hong-tu-da-zhan* 鴻圖大展 ‘swan goose-hope-big-spread = a congratulatory speech to people who start business; a prosperous business’

(3) Chinese humble remarks:

- a. *diao-chong-xiao-ji* 雕蟲小技 ‘carve-worm-small-skill = insignificant

skill'

b. *man-zhi-tu-ya* 滿紙塗鴉 'full-paper-draw-crow = very poor writing; to scrawl'

c. *xiao-quan* 小犬 'small-dog = my son'

(4) love related expressions:

a. *zhi-xian-yuan-yang-bu-xian-xian* 只羨鴛鴦不羨仙

'only-envy-mandarin ducks-not- envy-immortals = to admire the way that mandarin ducks deeply attach to each other rather than the way celestial beings live; love is much more important than immortality'

b. *yang-you-gui-ru-zhi-en* 羊有跪乳之恩

'goat-have-knee-milk-[modifier marker]- kindness = lambs kneel down when sucking at ewes' breasts; filial piety'

c. *hu-du-bu-shi-zi* 虎毒不食子 'tiger-cruelness-not-eat-son = even the cruel tiger does not devour his cubs; even the worst cruelty stops at its own kids'

German animal metaphors also give a selection of examples of emotional vocabulary. I list (5) exclamations, (6) confusing thoughts, and (7) endearments. Exclamation is one of the most common uses of language—a means of getting rid of people's nervous energy when people are under stress. Swearing and obscenities are signals used in this way when people are surprised or feel frustrated. Content-rich exclamations are found in our animal metaphor corpus.¹ Confusing thoughts are conveyed with small-sized animals and birds, as shown in example (6). To-and-fro flying birds are important metaphorical vehicles for the Germans to convey confusing thoughts, strange persons, and messengers. Röhrich (1679) explains that it is said in an old German belief that human mental instability is caused by animals, such as birds, nesting in the human head. Lévi-Strauss (2) noticed some decades ago that people would select a few species of birds and for each species a number of properties to convey different messages.

Endearments express love to a beloved child, woman, or man. Some of the examples in (7) are interchangeable for both women and children. Those for men are

¹ see Kövecses *Metaphor and Emotion*, 33 for dissenting views about "surprise" metaphors.

derived only from the bear (a wild animal), but those applied to women and children are derived either from domestic animals, pets, or birds. Such a division of application has definite cognitive implications (Hsieh, “A Corpus Based Study on Animal Expressions”).

- (5) German exclamations:
 - a. Geh' zum Geier 'go to vulture = Go to hell!'
 - b. Zum Kuckuck noch mal 'to cuckoo once more = Damn it!'
 - c. Ich werde zur Sau 'I-become-to-sow = I am turning into a devil!'
 - d. Pfui Spinne 'Boo-spider = Ugh! That's disgusting!'

- (6) German confusing thoughts:
 - a. Grillen im Kopf haben 'crickets-in-head-have = to be full of silly ideas'
 - b. Vogel haben 'have-bird = to have a screw loose'
 - c. einen Spatz im Dach 'a-sparrow-under-roof = to have confusing thoughts'

- (7) German endearments:
 - a. Bärchen 'little bear = term of endearment for a man'
 - b. Schmusekatze 'flattering she-cat = term of endearment for a woman'
 - c. Mäuschen 'little mouse = term of endearment for a woman/child'
 - d. Täubchen 'little dove = term of endearment for a woman/child'

- (8) German insults referring to women:
 - a. dumme Gans 'dumb-goose = a dumb woman'
 - b. blöde Ziege 'stupid-goat = a stupid woman'
 - c. Hausdrache 'house dragon = virago; shrew'

It is noteworthy that many pejorative terms in German animal metaphors are specifically used by male speakers to refer to women. By examining other languages, Holmes has found sexism in fowl metaphors. Fontecha and Jiménez Catalán have declared that the main metaphorical meanings that are applied to women have worse qualities than those to applied to men. Whaley and Antonelly and Sutton even came to the conclusion that *women are animals*. Evidence from my corpora agrees with their research; examples like (8) are used by men. Though there are also

reverse cases with the referent a man, there are far more animal insult-expressions used by men to refer to women than vice versa. This leads to the hypothesis that animal insult-expressions are mainly for men to unfold their emotions. Men are considered to be strong and reluctant to show their emotions as women do, but they find their outlet in animal metaphors. Animal metaphors serve as emotion terms for the following good reasons: They have active force, and they can be funny, poetic, and imaginative. They give the hearer imaginary space. Therefore, they are ambiguous vocabulary to express people's feelings or biases.

The structure of emotional concepts is seen by many researchers as a scenario or a model (e.g., Fehr and Russell; Shaver et al; Lakoff and Kövecses; Kövecses, *Metaphor and Emotion*; inter alia). Also, the use of animal metaphors and plant metaphors is conceptualized in two five-stage scenarios.

The scenario for using animal metaphors:

1. the speaker is angry,
2. the speaker tries to control his/her anger, but fails,
3. the speaker utters an animal metaphor,
4. the speaker hurts the hearer,
5. the animal metaphor evokes disharmony, hatred or violence.

The scenario is represented concurrently at several degrees of abstraction; anger has more than one model, and several prototypical cognitive models are associated with it (Kövecses, *Metaphor and Emotion*, 13). The same is true of other emotions. The above scenario shows a model: the speaker is angry and uses an animal metaphor which may in turn elicit the hearer's emotional response. For example, in a love affair, a woman may be so angry that although she tries to control herself, she still has to vent her feelings by uttering an animal metaphor, such as example (1a). She perhaps feels better when she knows that the animal metaphor hurts the hearer, but the hearer's violent reaction or hatred after hearing the animal metaphor may hurt her too. The function of lexicalized emotion expressions is to “underscore the concurrent, interconnected nature of actions and emotions” (Huang 179). Talmy's force schema is operating in this scenario.

The scenario for using plant metaphors:

1. the speaker is angry,
2. the speaker tries to control his/her anger, and succeed,
3. the speaker utters a plant metaphor,
4. the hearer thinks,
5. the hearer changes.

3.2. *Emotion and rationality shown in force schema*

The scenario for using plant metaphors is different from that for using animal metaphors. Here the same woman controls her emotions successfully, and the response of using a plant metaphor triggers an entirely different response than an animal metaphor does. Plant metaphors are ruminative vocabulary that convey people's experience and points of view in the society and are used to expostulate people mildly. By venting her feelings with a plant metaphor like one of those in (9) and (10), the speaker may cause her hearer to think about what she's said. Using animal metaphors is likely to elicit violence, whereas for most plant metaphors the reverse pattern should hold. This tendency is prominent.

(9) German Ruminative expressions:

- a. keine Rose ohne Dorn 'no rose without a thorn'
- b. Birnen vom Ulmenbaum fordern 'pears-from-elm-demand = to demand something impossible'
- c. die Bäume wachsen nicht in den Himmel
'the-trees-grow-not-in-the-sky = trees do not grow up to the sky; all good things come to an end'
- d. Wie der Baum, so die Früchte 'like-the-tree, so-the-fruits = like father, like son'

(10) Chinese Ruminative expressions:

- a. *gua-tian-li-xia* 瓜田李下 'melon-patch-plum-under = to do up the shoes in a melon-patch and to put on a hat under a plum tree; be careful not to be found in a suspicious position'
- b. *yi-ge-luo-bo-yi-ge-keng* 一個蘿蔔一個坑

‘one-[classifier]-radish-one- [classifier]-pit = to be straightforward and dependable; everyone should get their share’

c. *tian-ya-he-chu-wu-fang-cao* 天涯何處無芳草

‘sky-end-which-place-no- fragrant-grass = charming flowers and plants are everywhere; one should not be overly attached to someone’

d. *feng-sheng-ma-zhong-bu-fu-er-li* 蓬生麻中不扶而立 ‘bitter

fleabane-grow-hemp-middle- not-support-but-stand = influence of good society is like grass growing straight in a hemp field’

Grounds can be found for why plants serve as metaphorical vehicles for ruminative expressions. The life span of a plant, sow-grow-bloom-reap-death, is a seemingly motionless process with every stage lasting a long time in comparison with the motions of animals. This seemingly motionless quality of plants is hence chosen as the metaphorical vehicle for inviting thinking. Lakoff and Johnson (47) address IDEAS ARE PEOPLE and IDEAS ARE PLANTS. Their English examples are: “It will take years for that idea to *come to full flower*”, “Here's an idea that I'd like to *plant* in your mind,” and so on. Lakoff and Turner (84) believe that some plant metaphors are for us to make sense of our lives, and as a result they are used unconsciously and automatically at the conceptual level and conventionalized in everyday expressions. Observing the work of Shakespeare and other poets, Lakoff and Turner (6) state that “people are viewed as plants with respect to the life cycle—more precisely, they are viewed as that part of the plant that burgeons and then withers or declines, such as leaves, flowers, and fruit, though sometimes the whole plant is viewed as burgeoning and then declining, as with grass or wheat.” This alone is already poetic and contains a philosophy of life.

Details of the cause-force-response pattern of using animal metaphors and plant metaphors are listed in Table 1. When a situation causes one to become emotional and lose control (3A in Table 1), there is a force in the speaker (4A) and his heart needs an outlet (5A). An animal metaphor that is used under this situation carries an illocutionary force such as a warning or threat (6A). Due to such an illocutionary force, a perlocutionary act is performed by the hearer on hearing this animal metaphor; the hearer will perhaps fight with the speaker or respond with a psychological action, hatred, toward the speaker (7A). Bodily actions or behavioral

responses (8A) are aroused by the Antagonist (the emotion) (9A). If the hearer had not been angry, he will become angry now. Both the speaker and the hearer are dynamos. An animal metaphor sets off an emotion extension and ego extension (10A).

On the other hand, when a situation causes one's emotion, but one overcomes it and maintains control (3B), uttering a plant metaphor will guide the hearer to generate a force inwardly upon hearing it (4B). This plant metaphor carries force that works in the hearer's brain (5B). Now the illocutionary force is a statement of fact (6B) that will edify the hearer and cause thought or change (7B), a psychological effect on the hearer (8B). The Agonist (the rational self) (9B) makes the hearer the ego, a mild dynamo this time. A plant metaphor transfers its seeming inaction to the hearer and performs an ego transference (10B).

Animal metaphors show our emotions and can fire the hearer up, while plant metaphors may calm the hearer down and cause him or her to think. They have different illocutionary and perlocutionary force: animal metaphors engender emotional extension and plant metaphors stimulate inward thinking. The socio-pragmatic aspects of using animal and plant metaphors demonstrate Talmy's force-dynamic concept. In a word, animal metaphors confront a tough situation with toughness and “emotions as forces will turn a 'rational' hearer into an 'irrational' one” (Kövecses, *Metaphor and Emotion*, xiv), while plant metaphors can turn an irrational hearer rational.

Certain metaphors can make someone rational or irrational and can either promote the interpersonal relationship or break it down. Animal and plant metaphors therefore represent institutionalized socio-pragmatic values. Moon (257) states that by selecting a fixed expression, such as a metaphor, “a speaker or a writer is invoking an ideology, locating a concept within it, and appealing to it as authority.” Primarily when the metaphors express evaluations of behavior (animal metaphor) or situations (plant metaphor), or are directive in intent.

Table 1. The underlying cognition in using animal metaphors and plant metaphors

	A. Animal metaphors	B. Plant metaphors
1. Conceptual category	active	static
2. Socio-pragmatic function	emotional	rational
3. Control state	used when the speaker has lost control	used when the speaker maintains control

4. Direction of the force	(speaker) inner → out	(hearer) outside → inward
5. Route of the force	(speaker) heart → release (<i>outlet of the heart</i>)	(hearer) brain ← experience (<i>input of the brain</i>)
6. Illocutionary force	a warning (<i>to release speaker's emotion</i>)	a statement of fact (<i>to edify the hearer</i>)
7. Perlocutionary act	outward: fight, hatred to the speaker (<i>psychological action</i>)	inward: thinking, change of the hearer
8. Resultant works in	body / physical	brain / mind / psychological
9. Focal element	Antagonist (the emotion)	Agonist (the rational self)
10. Who is the ego	ego extension: the speaker is the ego → use animal metaphor → both speaker and hearer are egos	ego transference: the speaker is the ego → use plant metaphor → only hearer is the ego

4. Conclusion

Different cognitive processes operate when the life-form metaphors—animal metaphors and plant metaphors—are used, and these two types of metaphors have varying effects on hearers. Therefore, they have designated jobs semantically and pragmatically. Eventually, animal and plant provide human beings effective means to produce metaphors that facilitates interpersonal interaction. Social-force interaction takes place when someone shows emotion by shouting out an animal metaphor or takes control by uttering a plant metaphor. The former collapses communication and the relationship, whereas the latter facilitates communication and the relationship will be unharmed or even be better. In other words, the semantic categorizations, animal and plant metaphors, have functions of exhibiting social criteria. They are stimuli for interpersonal relationship and show people's moral criteria and self-regulation in the society .

Their social implications are apparent since a great number of animal metaphors have negative connotations or are used as insult terms to express strong emotions and to sharply express the speaker's values. Let us feel them from the cognitive approach of emotions theory, which holds that when someone is angry, he can be portrayed as thinking that he has been wronged and desires to retaliate. Another emotion, pride, is thinking that there is a good reason to think well oneself (Goddard 87).² Accordingly, when someone is called a *gemeiner Hund* 'mean-dog' in Germany, one should know that his behaviour has been considered "nasty" and against the cultural milieu of the given society. He is expected to either change his behaviour or be disdained in his community or society. When someone is called

² See Goddard (88) for social constructivism of emotion theory and see Kövecses (*Metaphor and Emotion*, 183) for body-based constructionism.

shi-zi-da-kai-kou 獅子大開口 ‘lion-big-open-mouth’, he should know he is asking for too much. He should either cut the price and get the deal, or keep the price and allow the deal to fail. Likewise, when one hears *yu-zai-shan-er-cao-mu-run* 玉在山而草木潤 ‘jade-at-mountain-and-grass-wood-exuberant’, which literally means that when there is jade in the mountains, the grass and trees will be exuberant, it implies that if one gentleman has good virtues, it will help to bring morality to the world. After introspection, the hearer should either improve himself because criticized for not meeting the community's standard of virtue, or he should be glad because the speaker may be praising him for behaviour that meets the demands of this society.

Chinese and German have the same tendencies in their plant and animal metaphors as demonstrated above. A universal psychobiological basis in generating and using such metaphors is evident. Without doubt, certain of their specifics are culturally determined. As Kövecses (*Metaphor and Emotion*, 187) observed in examining emotional meaning, Chinese shares with English the basic cognition of metaphors about happiness; happiness is up, light, and it is fluid in a container (Yu), possibly only the Chinese will conceptually spread out their anger to body parts rather than pointing it toward wrongdoers (King). Possibly only Hungarians will conceptualize the angry body as a pipe consisting of a burning substance (Kövecses, *Metaphor and Emotion*, 188). And perhaps only Tsou, the Austronesian language spoken in the highlands of southwestern Taiwan, perceives the difference between “where bodily actions precede and cause the onset of emotion and interpretations where emotions precede and lead to bodily actions” (Huang 179).

Animal metaphors and plant metaphors are used pervasively in Chinese and German. They jointly define and constitute what we human beings experience as emotion and rationality and communicate in human language. While animal metaphors mostly are active and emotional expressions used as outlets for human emotion, plant metaphors tend to be static and serve as philosophical inputs to the human brain.

References

- Atran, S. *Cognitive Foundations of Natural History: Towards an Anthropology of Science*. New York: Cambridge University Press, 1990.
- Claiborne, Robert. *Loose Cannons and Red Herrings: A Book of Lost Metaphors*. New York: W. W. Norton, 1988.
- Craddick, Ray. and Miller, John. "Investigation of the Symbolic Self Using the Concentric Circles Method and Animal Metaphor". *Perceptual and Motor Skills* 31 (1970):147-150.
- Fehr, B. & Russell, J. A. "Concept of Emotion Viewed from a Prototype Perspective." *Journal of Experimental Psychology: General* 113 (1984):464-486.
- Fontecha, Almudena Fernandez, Jiménez Catalán, Rosa Maria. "Semantic Derogation in Animal Metaphor: A Contrastive-Cognitive Analysis of Two Male-Female Examples in English and Spanish." *Journal of Pragmatics* 35 (2003): 771-797.
- Fraser, B. "Insulting Problems in a Second Language." *TESOL Quarterly* 15 (1981):435-441.
- Goddard, Cliff. *Semantic Analysis: A Practical Introduction*. Oxford, New York: Oxford University Press, 1998.
- Halliday, M. A. K. *An Introduction To Functional Grammar*. London: Edward Arnold, 1985.
- Holmes, Janet. *An Introduction to Sociolinguistics*. London: Longman, 1992.
- Hsieh, Shelley Ching-yu (謝菁玉). "Cat Expressions in Mandarin Chinese and German – Animal Expressions and Cultural Perspectives." Paper presented at the *10th International Conference on Cognitive Processing of Chinese and Other Related Asian Languages*. National Taiwan University, Taipei. Dec. 9-11, 2002.
- . "The Corpora of Mandarin Chinese and German Animal Fixed Expressions: A Cognitive Semantic Application" *University Centre for Computer Corpus Research on Language Technical Papers, Special Issue*, England: The University of Birmingham 18 (2004): 27-35.
- . "The Emotive and Ruminative Expressions in Mandarin Chinese and German" Paper presented at the *International Conference of Language, Culture and Mind*, University of Portsmouth, England. July 18-20, 2004.
- . "A Corpus Based Study on Animal Expressions in Mandarin Chinese and German." *Journal of Pragmatics* 38.12 (2006):2206-2222.
- Huang, Shuanfan (黃宣範). "Tsou Is Different: A Cognitive Perspective on Language, Emotion, and Body." *Cognitive Linguistics* 13.2 (2002):167-186.
- King, B. *The Conceptual Structure of Emotional Experience in Chinese*. Unpublished doctoral dissertation, The Ohio State University, 1989.
- Kövecses, Zoltán. *Emotion Concepts*. New York: Springer-Verlag, 1990.
- . *Metaphor and Emotion: Language, Culture, and Body in Human Feeling*. Cambridge: Cambridge University Press, 2000.
- Lakoff, George and Mark Johnson. *Metaphors We Live By*. Chicago: University of Chicago Press, 1980.
- Lakoff, George and Mark Turner. *More Than Cool Reason: A Field Guide to Poetic Metaphor*. Chicago: Chicago University of Chicago Press, 1989.

- Lakoff, George, and Zoltán Kövecses. "The Cognitive Model of Anger Inherent in American English." *Cultural models in Language and Thought*. Eds. D. Holland and N. Quinn. New York: Cambridge University Press, 1987. 195-221
- Lakoff, George. *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind*. Chicago: The University of Chicago Press, 1987.
- Lévi-Strauss, Claude. "The Bear and the Barber." *The Journal of the Royal Anthropological Institute* 93 (1963):1-11.
- Low, Ge, D. 1988. "On Teaching Metaphor." *Applied Linguistics*, 9.2 (1988):125-47.
- Meng, Q-R. (孟慶如). "Shan You Fusu Xi You Hehua (Fusu in Mountain, Lotus in Marshy Land)." *Journal of Chang Chun Teachers College* 20.3 (2001): 63-65.
- Moon, R. *Fixed Expressions and Idioms in English*. Oxford: Clarendon Press, 1998.
- Newmark, P. *Approaches to Translation*. Hemel Hempstead: Prentice Hall, 1988.
- O'Donnell, Paul. "Entre Chien et Loup: A Study of French Animal Metaphors." *The French Review* 63 (1990):514-523.
- Röhrich, Lutz. *Lexikon der Sprichwörtlichen Redensarten*. Freiburg: Herder, 1991.
- Searle, John. "Metaphor." *Philosophical Perspectives on Metaphor*. Ed. Johnson, M. Minneapolis: University of Minnesota, 1981. 248-285.
- Shaver, P., Schwartz, J., Kirson, D., & O'Connor, C. "Emotion Knowledge: Further Exploration of a Prototype Approach." *Journal of Personality and Social Psychology* 52 (1987):1061-1086.
- Sutton, Laurel A. "Bitches and Skankly Hobags. The Place of Women in Contemporary Slang." *Gender Articulated*. Eds. Hall, K. and Burholtz, M. London: Routledge, 1995.
- Talmy, Leonard. "Force Dynamics in Language and Cognition." *Cognitive Science* 12 (1988):49-100.
- . *Toward A Cognitive Semantics I: Concept Structuring Systems*. Cambridge: MIT Press, 2000.
- Wen, L-L. (文鈴蘭). *Shijing Zhong Comu Niaoshou Yixiang Biaoxian Zhi Yanjiu (A Study of the Image of Plants and Animals in The Book Of Odes)*. Master Thesis, Department of Chinese Literature. Taipei: National Chengchi University, 1986.
- Whaley, Crobert and George Antonelly. "The Birds and the Beasts—Woman as Animal." *Maledicta* 7(1983):219-229.
- Yu, Ning. "Metaphorical Expressions of Anger and Happiness in English and Chinese." *Metaphor and Symbolic Activity* 10.2 (1995):59-92.