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The body in anatomy: Looking at "head" for the mind-body link in Chinese

Abstract: This chapter presents a linguistic study of the Chinese body-part terms for the "head" and its parts, looking at their major metonymic and metaphorical extensions that constitute a unique linguistic pattern embedded in Chinese culture but, at the same time, display some possibly universal experiences derived from the common characteristics and functions of the human body. That is, the linguistic phenomena studied reflect the embodied nature of cognition as situated in the Chinese cultural context. The linguistic data show that our body, with its parts and their functions contributing to an operating system as a whole, serves as a semantic and cognitive template for our abstraction and imagination. In analyzing the linguistic evidence, the study applies an analytical instrument called a Decompositional Approach to Metaphorical Compound Analysis (DAMCA). It is hoped that this analytical tool can show in some detail how universal experiences with the body and culturally-constructed understandings of the body interact resulting in culturally-situated embodiment in human language and cognition.

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1 Introduction

Understanding the embodied nature of human cognition demands that researchers specifically look for possible mind-body and language-body connections (Gibbs 2006). The utilization of body-part terms in human language that manifests human abstraction such as emotions, thought, reason, character traits, social and cultural values, and so on, represents important language-body connections that reflect mind-body connections (Sharifian et al. 2008; Yu 2009a, 2009b; Maalej and Yu 2011). This chapter discusses the Chinese body-part terms for head and parts of the head as they are used in metonymic and metaphoric extensions from physical to nonphysical domains in order to highlight some linguistic evidence for embodied cognition. In doing so, this study will shed light on the interactive relationship between body, mind, and culture, in which the interest has long straddled across a number of disciplines such as anthropology,

linguistics, philosophy, and psychology (see, for instance, Johnson 1987, 2007; Feher, Naddaff, and Tazi 1989; Sheets-Johnstone 1990, 1992; Stafford 1991; Varela, Thompson, and Rosch 1991; Csordas 1994; Shore 1996; Lakoff and Johnson 1999; Weiss and Haber 1999; Lakoff and Núñez 2000; Kövecses 2005, 2006; Pecher and Zwaan 2005; Gibbs 2006; Semin and Smith 2008).

This is a linguistic study. More specifically, I study the Chinese body-part terms for the head and its parts looking at their major metonymic and metaphorical extensions that reflect the embodied nature of cognition as situated in the Chinese cultural context. The lexicon of a language serves as the "memory bank" of a cultural history from which valuable information can be retrieved about "cultural cognition" of its speakers as a group (Sharifian 2011: 35–44). Such studies can help find out if and how speakers of a language may share certain potential cognitive universals and, at the same time, remain distinct as a cultural group with its unique patterns of construal in understanding the world. Presumably, all languages utilize the body as a basis for meaning and understanding, but each of them does so in a distinct way that differentiates it from others (see, for instance, Sharifian et al. 2008; Maalej and Yu 2011).

In Chinese, a large number of linguistic terms for body parts, both external and internal, contribute to the embodied understanding of more abstract domains, affective, cognitive, and sociocultural, via metonymic and metaphorical extensions. They are extremely productive in the Chinese language, found in thousands of conventionalized expressions in the form of compound words, set phrases, and proverbial sayings (see Yu 2009b). My recent monograph (Yu 2009a), for instance, is just a comprehensive, but not exhaustive, study of the Chinese cultural conceptualization of *xin* 'heart', which is manifested in a huge quantity of conventionalized expressions that reflect a rich and long cultural history which can be traced back to the wealth of ancient Chinese philosophy and traditional Chinese medicine over two thousand and five hundred years ago.

In this chapter, my goal is to focus on the Chinese linguistic terms for "head" and its parts, highlighting some of their major metonymic and metaphorical extensions constituting a unique linguistic pattern that is embedded in Chinese culture but at the same time displays some possibly universal experiences derived from the common characteristics and functions of the human body. In Section 2, I lay out some linguistic data which to some extent show that our body, with its parts and their functions contributing to an operating system as a whole, serves as a semantic and cognitive template for our abstraction and imagination. In Section 3, I present some analytical examples applying an instrument which I call a Decompositional Approach to Metaphorical Compound Analysis (DAMCA) and which I have been developing in the past years (see Yu 2008, 2009a, 2011a, 2011b). It is hoped that this analytical tool can show in some detail how univer-

sal experiences with the body and culturally-constructed understandings of the body interact resulting in culturally-situated embodiment in human language and cognition.

2 A look at head through a lexical scan

It is common sense that the head is an extremely critical part of our body. That is why in English death penalty is also called "capital punishment", while capital has a Latin origin related to the meaning of head. As an indispensable external part, our head is located at the very "top" of our vertical body, which itself is a position of prominence and primacy, not to mention its importance as the locus of our sensual organs upon which we depend in our interaction with the outside world perceptually and cognitively. Internally, the head contains the brain, the organ that, as we know scientifically, is responsible for our "mind" processing all our affective and cognitive "information" and controlling the functions of our body with its "leadership". It seems that the "top" status and the "leadership" role of the head as a body part are both pulling forces in the semantic extension in Chinese. In the Chinese language, there are two words for head, 头 tou and 首 shou, the latter being the classical counterpart of the former. Let us look at some lexical examples.

- (1) 头等 a. tou-deng (head-rate) 'first-class; first-rate'
 - 头号 b. tou-hao (head-number) 'number one; size one; first-rate; top
 - 首要 c. shou-yao (head-important) 'of the first importance; primary; first; leader; chief'
 - 月头 yue-tou (month-head) 'beginning of a month' d.
 - 岁首 sui-shou (year-head) '(formal) beginning of a year' e.

As in (1a-c), the 'top' of the line in quality or importance is the 'head' (i.e., top in ranking is head). Thus, 头等人才 tou-deng ren-cai (head-class human-talent) refers to 'best qualified or most talented people'; 首要任务 shou-yao renwu (headimportant task) means 'task of prime importance'. The head as a whole, with the face as its part in particular, is the most 'prominent' and 'distinguished' part of a person. With the combination of 'head' and 'face' in Chinese, therefore, 头面人物 tou-mian renwu (head-face person), for instance, refers to a 'prominent figure' or 'big shot' of a place. As will be discussed below, the part of "face" itself is mapped metaphorically onto the concept of "prestige", and therefore a "head-face person" is one of "top prestige".

As shown in (1d) and (1e), the head being the top of the body is mapped onto the domain of time, where the "head" refers to the "beginning" of a certain period of time (a month or a year). Note that while BEGINNING OF A PERIOD OF TIME IS HEAD, this does not apply generally to any period of time in Chinese. For instance, we do not say "hour head", "day head", or "week head" to mean "beginning" of an hour, a day, or a week. In other words, it seems, the period of time needs to be long enough to have a "head" (世纪首尾 shiji shou-wei [century head-tail] 'beginning and end of a century'). But we can say, for example, "head-two hours" (头两个钟头 tou liang-ge zhongtou) to mean "first couple of hours", "head-one day" (头一天 tou yi tian) to mean "first day", and "head-few weeks" (头几周 tou ji zhou) to mean "first few weeks", where "head" (头 tou) is equivalent to English "first". In Chinese, time has a vertical as well as a horizontal orientation (see Yu 1998: Ch. 4). Along the vertical orientation, EARLIER IS UPPER and LATER IS LOWER. The beginning of a period of time being the "upper" end is therefore the "head" of that period, in contrast with its "lower" end, which is called "bottom" (rather than "foot"!), as in 月底 yue-di (month-bottom) 'end of a month' and 年底 nian-di (year-bottom) 'end of a year'. Even along the horizontal orientation, in which a period of time has its "front" and "rear" ends, the beginning is still called "head", but the end is called "tail", such as 月尾 yue-wei (month-tail) 'end of a month' and 年尾 nian-wei (year-end) 'end of a year'. Apparently, the horizontal orientation of time is modeled upon an animal rather than human body.

In fact, "head" being mapped onto "beginning" is not limited to the domain of time; it applies to other kinds of "beginning" as well, that of sequential entities in general, as opposed to their "end", which is commonly called wei 'tail' in contrast. For instance, 开个好头 kai ge hao tou (open a good head) 'make a good beginning' can refer to the beginning of anything we do "through" time, and the old saying 万事起头难 wan-shi qi-tou nan (ten.thousand-things make-head difficult) means "It is difficult to start (literally, to make the head of) everything (literally, ten thousand things)" or "Beginning is always difficult". Jobs that are done with a fine start but a poor finish are characterized as 虎头蛇尾 hu-tou she-wei (tiger-head snake-tail), which is obviously modeled on animal bodies.

- (2) a. 头子 tou-zi (head-SUFFIX) '(derogatory) boss; chief; chieftain'
 - b. 头目 tou-mu (head-eye) '(derogatory) 'head of a gang; chieftain; ringleader'
 - c. 首领 shou-ling (head-neck) 'chieftain; leader'
 - d. 首脑 *shou-nao* (head-brain) 'head; leader (of the government of a nation state)'

- 元首 yuan-shou (first/primary-head) 'monarch; head of state; chief e. executive'
- f. 首都 shou-du (head-capital) 'capital (of a country)'
- 首府 shou-fu (head-government.seat) 'capital city of a local g. government'
- 带头 h. dai-tou (take-head) 'take the lead; take the initiative; be the first; set an example'
- 领头 i. ling-tou (lead-head) 'take the lead; be the first (to do something)'

The compounds in (2a-e) are examples showing that leaders, in a negative or positive sense, and of a social group or a nation state, are "heads". In general, a social organization, be it small or large, local or national, is composed of the functions of and relations among its members which form an "organic body" (A SOCIAL ORGANIZATION IS A BODY), with the person who leads the organization as its "head" (LEADER IS HEAD and more abstractly LEADERSHIP IS HEAD). In the same vein, the cities where the central and local governments are seated are also "head" cities of the territorial areas under their administration (2f, g). When people take the lead or are the first to do something, they are the "head" of those who follow them (2h, i).

As shown in (2d) above, the combination of "head" and "brain" means "head or leader" of a nation state. This is because the leader of a nation state is located at the very top of the hierarchical power structure of a country, as the "head" of the "governmental body", just as the head is located at the very top of the human body. This is also because the brain, the organ of mental power and intellectual strength contained inside the head, plays a crucial role in the operating of the human body, which is then mapped onto the leader of the country who has the political power as well as wisdom to lead the nation state as a "social body". The conceptualization of "head" and/or "brain" as the "leader" is also instantiated linguistically in (3a) and (3b) below, although they are not used formally to refer to the head of a nation state.

- (3) a. 头脑 tou-nao (head-brain) 'brains; mind; main thread; clue; (informal) chief; chieftain; leader'
 - 主脑 zhu-nao (main-brain) 'part that plays the central role; center b. of operation; chief; leader'
 - 脑子 nao-zi (brain-PRT) 'brain; brains; mind; head' c.
 - d. 脑袋 nao-dai (brain-bag) 'head; brains; mind'
 - 脑汁 nao-zhi (brain-liquid/juice) 'brains' e.
 - f. 脑海 nao-hai (brain-sea) 'brain; mind'

- g. 脑际 nao-ji (brain-boundary/inside) 'mind; memory'
- h. 脑筋 nao-jin (brain-muscle) 'brains; mind; head; way of thinking; ideas'
- i. 脑力 nao-li (brain-strength) 'mental power; intelligence'

It is not surprising that the compound in (3a), consisting of "head" and "brain", also means "brains" and "mind" in Chinese. Thus, 有头脑 you tou-nao (have head-brain) means "have plenty of brains" or "be resourceful"; 有商业头脑 you shangye tou-nao (have business head-brain) means "be commercially minded"; 头脑清楚 tou-nao qingchu (head-brain clear) means "have a clear mind" or "be clear-headed". In fact, all the compounds in (3c-i) mean "brain(s); mind; head" or refer to other mental faculties. For instance, 绞尽脑汁 jiao-jin nao-zhi (wringall brain-liquid), which contains (3e), means "rack one's brains (for something)"; 开动脑筋 *kai-dong nao-jin* (turn.on-move brain-muscle), which contains (3h), means "use one's brains or head". It is worth mentioning that traditionally in Chinese culture, the heart is conceived of as the locus of the "mind", and is perceived as the central faculty of cognition responsible for both thinking and feeling (Yu 2009a). Readers are referred to Yu (2009a) for discussions comparing and contrasting "heart" and "brain" in traditional and contemporary Chinese culture (see 130-135, 273-290) and taking on an external perspective from Western cultures (see 332–366).

As part of the body, the head has its own parts including the face. The main Chinese words for "face", 脸 *lian* and 面 *mian*, are very productive in their metonymic and metaphoric expression of emotions, character traits, social and cultural values, and so on (see Yu 2009b: Chs. 2, 7). This is because the face, as the most distinctive part on the interactive side of our body, is our "identity mark" both physically and socially. Therefore, as is common across languages and cultures, the face can stand for the whole person (FACE FOR PERSON). For instance, to see a person is "to see this person's face" (见面 *jian-mian* [see-face]); people appearing on public occasions is "to show their faces" (露面 *lou-mian* [show-face]).

Furthermore, the face can indicate people's emotions and represent their character (FACE FOR EMOTION and CHARACTER AS FACE), as the following Chinese compounds suggest:

- (4) a. 脸热 lian-re (face-hot) 'feel ashamed'
 - b. 脸红 lian-hong (face-red) 'blush with shame or embarrassment'
 - c. 面嫩 *mian-nen* (face-tender) 'shy; bashful; sensitive; timid'

- d. 脸软 lian-ruan (face-soft) 'soft-hearted; good-natured; disinclined to hurt others' feelings; having too much consideration for others' feelings or sensibilities'
- 脸硬 lian-ving (face-hard) 'not easily persuaded to give in; not e. easily swayed by emotions; not sparing anyone's sensibilities'

In (4a) and (4b), the common facial reactions to the feelings stand for the feelings themselves. In the last three examples, people's character is related metaphorically to the texture of their face. They represent a cultural understanding of the "textural expression" of the facial skin. That is, the "tougher" the face is in "quality", the less likely it will be affected by shyness or shame. Of course, the degree of sensibility to shyness or shame varies not only in "quality", but also in "quantity" of the face. In Chinese 脸皮 lian-pi (face-skin) can mean "feelings; sensibilities; cheeks; sense of shame". 脸皮厚 lian-pi hou (face-skin thick) means "thick-skinned" and "shameless or brazen". In contrast, 脸皮薄 lian-pi bao (faceskin thin) means "thin-skinned" and "shy or bashful". That is, when the "material" of the face remains the same, "thicker" faces are less prone to damage than "thinner" faces.

In Chinese, the face has become a "sign" hanging on interpersonal relationship which can be "changed" (变脸 bian-lian [change-face] 'suddenly turn hostile'), "turned" (翻脸 fan-lian [turn-face] 'fall out; suddenly turn hostile'), or "ripped" (破脸 *po-lian* [rip-face] 'turn against an acquaintance'). The most social values that the face carries, however, lie in its conceptualization as the locus of dignity and prestige. Although such abstract concepts as disgrace, humility, dignity, and prestige are not solely understood through "face", it seems safe to say that their conception and elaboration are based on the Chinese understanding of the face as the most "emotion-affected" and "attention-catching" part of a person. Look at the following compounds:

- (5) 丢脸 diu-lian (lose-face) 'lose face; be disgraced' a.
 - b. 舍脸 she-lian (sacrifice-face) '(do something) at the sacrifice of dignity'
 - 有脸 you-lian (have-face) 'have prestige; command respect; have c. the face or cheek'
 - 脸大 lian-da (face-big/large) 'have (much) prestige; command d. (much) respect'
 - 脸小 lian-xiao (face-small) 'have little or no prestige; be nobody' e.
 - f. 给脸 gei-lian (give-face) 'do someone a favor; save someone's face'

g. 賞脸 shang-lian (grant-face) '(used when requesting somebody to accept one's request, invitation, or presence) honor me with your presence; favor me with'

As can be seen, the face as dignity can be "lost" (5a) or "sacrificed" (5b). Also, to have prestige is to "have face" (5c); the amount of prestige people have is the size of their face (5d, e), namely, the "bigger" face they have, the more prestige they have, and vice versa. The face as prestige can even be transferred, i.e., "given" (5f) or "granted" (5g) from one person to another. Thus, by receiving "face" from prestigious people, the recipients would feel more "honored" and "privileged" (see Yu 2009b: Ch. 7 for a more detailed analysis of Chinese cultural conceptualization of "face"). While the face carries heavy social values as the focus of human interaction and relationship and locus of people's dignity, prestige, and honor, its social significance, however, is rooted in the fact that the face quite often functions as the "barometer" of people's emotional and mental states, and is even taken as an "index" to their personality and character. In that respect, however, the most expressive and suggestive part of the face is the eyes, represented in Chinese mainly by two characters \mathbb{R} yan and \mathbb{H} mu 'eye'.

In Chinese, the eyes are often coupled with the brows, 眉 *mei*, in lexical items expressing emotions, such as 愁眉锁眼 *chou-mei suo-yan* (worried-brows lockedeyes) 'knit one's brows in anxiety or despair', 横眉怒目 *heng-mei nu-mu* (horizontal-brows angry-eyes) 'with frowning brows and angry eyes', and 眉开眼笑 *mei-kai yan-xiao* (brows-open eyes-smile) 'beam with joy' (see Yu 2009b: 44). The compounds involving "eye" only often describe various ways of seeing and viewing (PERCEPTUAL ORGAN FOR PERCEPTION or, more specifically, EYE FOR SEEING), and some of them (6c, d) are often used metaphorically to refer to mental vision and knowledge (MENTAL FUNCTION IS PERCEPTUAL EXPERIENCE or, more specifically, KNOWING IS SEEING):

- (6) a. 过目 *guo-mu* (pass-eye) 'look over so as to check or approve; read quickly through'
 - b. 极目 ji-mu (reach.limit-eye) 'look as far as the eye can see'
 - c. 放眼 fang-yan (let.go-eye) 'take a broad view; scan widely'
 - d. 着眼 *zhuo-yan* (put.to-eye) 'see/view from the angle of; have sth. in mind'

When something attracts much of people's attention, it "acts" to "catch the eye" even in a "forceful" manner: e.g., 触眼 *chu-yan* (touch-eye) 'eye-catching; striking; conspicuous'; 打眼 *da-yan* (beat-eye) 'catch the eye; attract attention'; 刺眼 *ci-yan* (prick-eye) 'dazzling; offending to the eye'; 夺目 *duo-mu* (seize-eye) 'catch

the eye; dazzle the eyes; be striking to the eye'. In these compounds the target of perception appears to be animate, attracting attention by getting "physical contact" with the eyes: "touching", "beating", "pricking", or "seizing" them. They all instantiate seeing is touching in one way or another.

The compounds involving "eye" also describe states and activities of the mind, such as 政治眼光 zhengzhi yan-guang (political eye-light) 'political foresight or vision' and 目中无人 mu-zhong wu-ren (eve-in no-person) 'consider everyone beneath one's notice; be supercilious; be overweening'. Such expressions manifest MENTAL FUNCTION IS PERCEPTUAL EXPERIENCE, pointing to the close tie between perception and cognition (see Yu 2009b: Ch. 8).

Compared with the terms for "eye", the terms for "nose", 鼻 bi, and "ear", 耳 er, are not as productive in conventional linguistic expressions. In Chinese, for instance, a few idioms involving the "nose" express a kind of attitude toward things or people. Thus, 嗤之以鼻 chi-zhi yi-bi (sneer-sb./sth. with-nose) means "give a snort of contempt" or "despise", referring to one's contempt for something or somebody shown through giving a snort. The idiomatic expression 鼻孔朝天 bi-kong chao-tian (nose-nostril toward-sky) means "look down one's nose at people" or "be haughty", with a reference to the apparent manner of haughty people whose head, and nose accordingly, is raised too high. If we say that someone "breathes (out) through one nostril" (一个鼻孔出气 yige bikong chu-qi [one nostril breathe-out]) with another person, it means that the two "are hand in glove with each other". The expression 仰人鼻息 yang-ren bi-xi (look.up.to-people nose-breath), which means "be slavishly dependent on others", is grounded in the construal of depending slavishly on others as "living below their nose". That is when people have to "look up to others" and others "look down their nose at them".

The ear as a sensory organ has to do with hearing. Its importance in human cognition can be seen in an idiom in which "ear" and "eye" are coordinated and combined: 耳聪目明 er-cong mu-ming (ear-acute.hearing eye-good.vision) 'have good eyesight and hearing; clear-headed; have a good grasp of the situation'. That is, if people see and hear clearly, they are alert and aware, and intelligent as a person. In Chinese, hearsay or rumor is called 耳风 er-feng (ear-wind). If people turn a deaf ear to others' advice, they take that advice as 耳边风 er-bian feng (earside wind) 'breeze flitting by one's ears; unheeded advice'. If people are said to have "soft ears", 耳朵软 erduo-ruan (ear-soft), it means that they are "credulous", "easily influenced", or "susceptible to flattery", as part of the traits of their personality.

Another important sensual organ on the face is the mouth, which is represented in Chinese by two words, 嘴 zui and □ kou 'mouth'. With no surprise, the Chinese words for "mouth" are, first and foremost, associated metonymically with food and drinks, and eating and drinking (MOUTH FOR FOOD, MOUTH FOR EATING, MOUTH FOR FLAVOR OF FOOD, MOUTH FOR TASTE OF PERSON, MOUTH FOR APPETITE).

- (7) a. 口腹 kou-fu (mouth-belly) 'food and drinks'
 - b. 胃口 *wei-kou* (stomach-mouth) 'appetite; (*figurative*) liking; ambition; appetite'
 - c. 口轻 kou-qing (mouth-light) 'lightly-seasoned; be fond of lightly-seasoned food'
 - d. 口重 kou-zhong (mouth-heavy) 'heavily-seasoned; be fond of heavily-seasoned food'
 - e. 口味 *kou-wei* (mouth-taste) 'flavor or taste of food; one's taste or liking'
 - f. 贪嘴 tan-zui (greedy-mouth) 'greedy (for food); gluttonous'
 - g. 忌嘴 *ji-zui* (avoid-mouth) 'avoid certain food (as when one is ill); be on a diet'
 - h. 嘴刁 zui-diao (mouth-picky) 'be particular about food; (dial.) be a tricky talker'

As in (7a), the combination of "mouth" and "belly" is a metonymy for "food and drinks", and 口腹之欲 kou-fu zhi-yu (mouth-belly PRT-desire) means "desire for food and drinks" and 不贪口腹 bu-tan kou-fu (not-greed.for mouth-belly) means "not be given to food and drinks". In (7b), where "mouth" is combined with "stomach", the compound word refers to one's "appetite" for food, or figuratively "liking" and "ambition", etc. Thus, 胃口好 wei-kou hao (mouth-stomach good) means "a good appetite" for food, 适合我的胃口 shihe wode wei-kou (suit my stomach-mouth) means "to my liking", and 胃口很大 wei-kou hen da (stomachmouth very big), other than "have a very good appetite (to eat a lot)", can mean figuratively "have a wild ambition". That is, while there is a metaphor AMBITION IS APPETITE, this metaphor's source domain itself contains a metonymy STOMACH AND MOUTH FOR APPETITE. Similarly, 倒胃口 dao wei-kou (topple stomach-mouth) can mean both "spoil one's appetite (for food)" and "kill one's interest; dampen one's spirits". In (7c) and (7d), "light" and "heavy" respectively refer to whether the flavor of food or the taste of a person is "light" or "heavy", whereas (7e) refers to the "flavor or taste of food" or "one's taste or liking" both literally and figuratively. The last three examples (7f-h) are about people being greedy for, or cautious or particular about food, but people's dining characteristics are characteristics of their mouth (MOUTH FOR TASTE).

Notably, (7h) also characterizes people's peculiar way of talking. In fact, the terms for "mouth" are extremely productive, involved in a large number of con-

ventional linguistic expressions about linguistic activity and function, reflecting a metonymic extension from "mouth" to "person" (MOUTH FOR PERSON), to "speaking" (MOUTH FOR SPEAKING), or "speech" (MOUTH FOR SPEECH) (see Yu 2009b: Ch. 9). For instance, in Chinese, 大嘴 da-zui (big-mouth) means "one given to loud offensive talk; one who has a loose tongue", 快嘴 kuai-zui (fast/ quick-mouth) means "one who readily voices his thoughts; one who is quick to articulate his ideas", and 油嘴 you-zui (oily/greasy-mouth) means "a glib talker". In other words, the "mouth" refers metonymically to a person who characteristically talks in a way that reveals part of his or her character.

The examples that instantiate MOUTH FOR SPEAKING include the following: 开 口kai-kou (open-mouth) 'open one's mouth; start to talk'; 动口 dong-kou (movemouth) 'talk; speak'; 闭口bi-kou (shut-mouth) 'keep one's mouth shut'; 住嘴 zhu-zui (stop-mouth) 'stop talking'. The compounds that are linguistic instantiations of MOUTH FOR SPEECH include:

- 改口 (8) a. gai-kou (change-mouth) 'withdraw or modify one's previous remark'
 - 插嘴 cha-zui (insert-mouth) 'interrupt; chip in' b.
 - 嘴甜 c. zui-tian (mouth-sweet) 'smooth-tongued; honey-mouthed'
 - 嘴尖 d. zui-jian (mouth-pointed) 'sharp-tongued; cutting in speech; be choosy about what one eats'

The examples in (8) can be seen as instantiations of the metonymy MOUTH FOR SPEECH. Thus, in (8a) "change the mouth" means "withdraw or modify the previous remark", and in (8b) "insert the mouth" means "interrupt or chip in", namely "insert remarks into other people's remarks". In (8c) and (8d), "the mouth sweet or pointed" means "what one says sounds sweet or cutting".

Although the examples discussed above are predominantly metonymic, relating "mouth" to "speaking" and "speech", some of them are also metaphorical. Here are a few more examples:

- (9) a. 卖嘴 mai-zui (sell-mouth) 'show off verbal skill; indulge in clever talk'
 - b. 磨嘴 mo-zui (grind-mouth) '(dial.) jabber; do a lot of talking; indulge in idle talk; argue pointlessly'
 - 嘴直 zui-zhi (mouth-straight) 'outspoken; plainspoken' c.
 - 嘴碎 zui-sui (mouth-fragmented) 'loquacious; garrulous' d.

That is, to show off one's verbal skills is "to sell one's mouth" (9a); to indulge in idle talk or to argue pointlessly is "to grind one's mouth" (9b). If one is outspoken or plainspoken, one has a "mouth that is straight" (9c), namely, words can flow out of it without impediment; and if one is loquacious or garrulous, one's "mouth is fragmented" (9d), with words rushing out "through all its fragments".

As a part of the face on the head, the mouth has its own parts, crucial for vocalization: the lips (唇 chun), the teeth (齿 chi), and the tongue (舌 she). They also participate in many conventional linguistic expressions concerning linguistic activities. In (10) are some compound examples:

- (10) a. 启唇 qi-chun (open-lips) 'open one's mouth; start to talk about sth'.
 - b. 启齿 qi-chi (open-teeth) 'open one's mouth; start to talk about sth'.
 - c. 挂齿 gua-chi (hang.on-teeth) 'mention'
 - d. 不齿 bu-chi (not-teeth/mention) 'not worth mentioning; despise'
 - e. 齿及 chi-ji (teeth-reach) 'mention; touch upon'
 - f. 齿冷 chi-leng (teeth-cold) '(formal) laugh sb. to scorn'
 - g. 饶舌 *rao-she* (rich-tongue) 'too talkative; garrulous; shoot off one's mouth'
 - h. 卖舌 *mai-she* (sell-tongue) 'make sensational statements for the sake of publicity'
 - i. 结舌 *jie-she* (knot-tongue) 'be tongue-tied; be at a loss for words'
 - j. 嚼舌 *jiao-she* (chew-tongue) 'wag one's tongue; gossip; argue meaninglessly'
 - k. 舌战 *she-zhan* (tongue-battle) 'have a verbal battle with; argue heatedly with; a hot dispute; a verbal battle'

As we can see, starting to talk is "opening the lips or teeth" (10a, b). When people feel embarrassed to talk about something, they then "find it difficult to open their teeth" (难以启齿 nan yi qi-chi)". In Chinese, to mention something is also to "hang it on the teeth" (10c); it is often used in the phrase 不足挂齿 bu zu gua-chi (not sufficient to hang on the teeth) 'not worth mentioning', said when someone thanks you for the favor you have done. In (10e), to mention or touch upon something is one's "teeth reach" it. As in (10g), a talkative or garrulous person has a "rich tongue". Making sensational statements for the sake of publicity is "selling one's tongue" (10h). As in (10j), to gossip or argue meaninglessly is to "chew one's tongue". As in (10k), the "tongue battle" refers to a "verbal battle" fought in a "hot dispute".

Finally, the area beyond the face on the head is largely covered by the hair. As part of the head, the hair is not as crucial as others discussed above. In Chinese, the hair, 发 fa, is used in the expressions indicating the emotion of anger with the image of hair standing on end: for instance, 发指毗裂 fa-zhi zi-lie (hair-stand eye.corner-split) 'so angry that one's hair bristles and the corners of one's eyes

split'; 怒发冲冠 nu-fa chong-guan (angry-hair push.up-hat) 'bristle with anger; swell with rage'. Because our hairs are each so thin that it is even difficult to see one when separate from the mass, the hair is used when people want to say that it is difficult to see the difference between two entities, such as 毫发不差 hao-fa bu-cha (soft.hair-hair not-different) 'not deviating a hair's breadth; without the least difference'; 毫发不爽 hao-fa bu-shuang (soft.hair-hair not-deviate) 'not deviate a hair's breadth; be perfectly accurate'. Although the hair itself is not a crucial part of the body, it is involved in the idiomatic expressions for an imminent critical situation: 间不容发 jian-bu-rong-fa (in.between-not-allow-hair) 'not a hair's breadth in between - the situation is extremely critical'; 千钧一发 qianjun yi-fa (thousand-jun one-hair) '(jun: a unit of weight in ancient China equivalent to over 30 pounds) hundredweight hanging by a hair – an extremely critical, precarious situation'.

In summary, as seen above, despite the obviously imaginative nature and peculiar figurative meanings of many of the expressions discussed in this section, the data as a whole seem to be modeled on the body as a semantic and cognitive template. Specifically, the abstract concepts these expressions represent metonymically and metaphorically are motivated by the common functions and characteristics of the body parts involved. On the one hand, for instance, "head" is mapped onto "best" rather than "worst" in quality, "prime" rather than "least" in importance, "beginning" rather than "end" of a (long) period of time or sequential entities, "leader" rather than "follower" of a social or a governmental organization, and "capital city" for the central or local government rather than an "ordinary town". In all these cases, the target concepts occupy the "top" of a complex system. The metaphorical mappings are "apt" because they seem to be rooted in the universal structure of our body: Our head is located at the top of our body and is the most critical external part of our body. Interestingly, however, these mappings are not universal at all and they do not occur in all languages (see, for instance, Ai 2010). It seems that in English, for instance, "head" is mostly mapped onto "leader" and "capital city", and possibly onto "prime in importance" too (for instance, of capital importance, meaning "very important"; see LDCE 1978: 149). We can hypothesize that there is a wide variety of possibilities across languages and cultures by which "head" is or is not mapped onto certain target concepts. In the next section, I will apply a deep analysis, a decompositional approach, in order to show how body and culture interact in language and cognition.

3 A look at "head" through a decompositional analysis

In "Metaphor from body and culture" (Yu 2008), I argue that the body is a potentially universal source for emerging conceptual metaphors, which constitute a cognitive mechanism that helps structure abstract concepts, as manifested in many of the conventionalized linguistic metaphors, but culture, in the form of cultural models that structure our understanding of the world, is a filter that only allows certain body parts and bodily experiences as source concepts to emerge and map onto certain target concepts. There, I used a Decompositional Approach to Metaphorical Compound Analysis, or DAMCA, to show the interaction between body and culture. This approach is based on primary metaphor theory (Grady 1997a, 1997b; see also Lakoff and Johnson 1999, 2003), aiming to show how a metaphorical compound may have multi-level complexity comprising at each level multiple components, namely, complex and primary metaphors, metonymies, and propositions expressing commonsense knowledge and cultural beliefs.

For instance, I analyzed a very prominent complex metaphor in the Chinese language and culture, PRESTIGE IS FACE (see the examples in 5 above), the decompositional analysis of which I slightly modify and rewrite in (11) below (in the parentheses CM = complex metaphor, PM = primary metaphor, MY = metonymy, PR = proposition). As I see it, PRESTIGE IS FACE is just a shorthand version of a metaphorical compound PRESTIGE AS A DESIRABLE FEELING IS FACE AS A VALUABLE POSSESSION, where the source concept, FACE, is itself understood metaphorically, with FACE IS A VALUABLE POSSESSION (11b), which is another complex metaphor that can be further decomposed (11c–e).

(11)	PRESTIGE IS FACE		
	a.	PRESTIGE IS A DESIRABLE FEELING	(PR)
	b.	FACE IS A VALUABLE POSSESSION	(CM)
	c.	FACE STANDS FOR A FEELING	(MY)
	d.	A VALUABLE POSSESSION IS A PHYSICAL OBJECT	(PR)
	e.	A FEELING IS A PHYSICAL OBJECT	(PM)
	f.	AMOUNT OF PRESTIGE IS SIZE OF FACE	(CM)
	g.	PRESTIGE IS A FEELING	(PR)
	h.	FACE IS A PHYSICAL OBJECT	(CM)
	i.	FACE STANDS FOR A FEELING	(MY)
	j.	A FEELING IS A PHYSICAL OBJECT	(PM)
	k.	MUCH IS BIG (\rightarrow PRESTIGIOUS IS BIG)	(PM)

As shown above, the complex metaphor in (11) is decomposed into a multi-level structure with multiple components on each level as (11a-k), where indentations indicate lower-level elements composing the element immediately above them. Specifically, (11) is decomposed into (11a), (11b) and (11f). While (11a) is a proposition expressing a cultural belief, both (11b) and (11f) are complex metaphors, which are further decomposed as in (11c-e) and (11g-k) respectively. Note that (11c), as well as (11i), represents the metonymic motivation for the metaphor in (11). As such, it constitutes the bodily basis for the latter. It is also noteworthy that the primary metaphor A FEELING IS A PHYSICAL OBJECT in (11e, j), which falls into the object-dual of the Event Structure Metaphor system (Lakoff 1993; see also Yu 1998: Ch. 5), accounts for the ontological nature of the same metaphorical compound. Because it is a primary metaphor, it can no longer be further decomposed. What the complex metaphor in (11f) entails is "having more prestige is having a bigger face" and "having less prestige is having a smaller face". As in (11k), MUCH IS BIG is another primary metaphor (on a par with, say, MORE IS UP) which cannot be further decomposed. The examples that instantiate it in English include a huge risk, be hugely pleased, a colossal success, be colossally interesting, a man of gigantic strength, a gigantic concession, a titanic force. Adjectives such as big and large are often used in such a way as well. The parentheses in (11k) contain an alternative analysis: If someone has "much prestige", this person is "prestigious", which is equivalent to PRESTIGIOUS IS BIG (on a par with, for instance, IMPOR-TANT IS BIG). How the conceptual mappings are possibly involved between the elements and how the conceptual frames are possibly related and embedded in (11) can be illustrated by Figure 1:

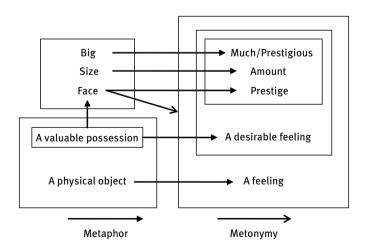


Figure 1: Elements, frames, and mappings involved in PRESTIGE IS FACE

As in Figure 1, the three main frames represent the three domains involved, i.e., face, physical object, and feeling, and the arrowed lines indicate the mapping relationships among these three domains. The smaller frames embedded within the larger frame represent the "a kind of relationship, i.e., "valuable possession" is a kind of "physical object", "prestige" is a kind of "desirable feeling", which in turn is a kind of "feeling" in general. Since "face" is understood metaphorically as a "valuable possession", it has a "size" that can be "big" or "small". "Face" as a source concept is also connected to "feeling" in a metonymic mapping and "prestige" as a result of a metaphorical mapping. The mappings between "valuable possession" and "desirable feeling" and between "physical object" and "feeling" are metaphorical in nature; while the former is at a complex level, the latter is at the primary level which can no longer be decomposed.

Although the metaphorical compound under analysis, PRESTIGE IS FACE or its long version prestige as a desirable feeling is face as a valuable pos-SESSION, has an embodied grounding in a strong, and perhaps universal, metonymic link between the face and emotions and feelings, that bodily basis, as I noted (Yu 2008), only accounts for its motivation whereas the actual selection of the elements involved and combination of those elements in a specific way depend largely on cultural factors. For instance, it is possible to find the primary metaphor A FEELING IS A PHYSICAL OBJECT common, but its specific-level instance PRESTIGE IS A PHYSICAL OBJECT absent, in a culture. It is possible that such concepts as PRESTIGE are understood in terms of substances, forces, or locations, rather than objects. It is also possible that PRESTIGE is conceptualized as objects, but not as faces, despite the fact that there exists an experiential link between feelings and the face. Any of these possibilities would alter the outcome of the metaphorical compound. That is what I meant by saying "culture is the filter for emerging metaphors", since not everything in the source can actually emerge for conceptual metaphorical mappings as manifested in conventionalized linguistic expressions. DAMCA, as demonstrated above, can be relatively specific about the dynamics of cognitive mechanisms and the variables of cultural factors that determine the outcomes of metaphorical compounds.

In what follows, I will again use DAMCA to show how this analytical instrument can help us see how a complex metaphor can contain possible components that relate to one another in a complicated way. Due to limited space, I will apply this approach to the analysis of a relatively "simple" metaphorical mapping, BEST (IN QUALITY) IS HEAD, which is nevertheless a complex metaphor technically. Look at the following analysis:

(12)	BES	(CM)	
	a.	BEST IS UPMOST PART OF RATING HIERARCHY	(CM)
	b.	BEST IS SUPERLATIVE OF GOOD	(PR)
	c.	RATING HIERARCHY IS A SYSTEM WHERE	
		ABSTRACT ATTRIBUTES ARE RATED SPATIALLY	(PR)
	d.	good is up (\rightarrow bad is down)	(PM)
	e.	HEAD IS UPMOST PART OF HUMAN BODY	(PR)

That is, the complex metaphor in (12) is first decomposed into (12a) and (12e). While (12e), concerning the source concept, presents a proposition describing some commonsense knowledge about our head (and body), (12a) is a lower-level complex metaphor that maps a spatial concept onto an abstract attribute. Then (12a), because it is a complex metaphor itself, is further decomposed into the lowest-level components in (12b-d). Both (12b) and (12c) present propositions describing our commonsense knowledge, (12d) represents a primary metaphor that can no longer be decomposed. While we know that "best" is the superlative degree of "good" (12b), the concept of "good", because of the nature of the "rating hierarchy" in our conceptual systems (12c), is also understood spatially as "up", which entails its opposite BAD IS DOWN as well (12d).

It is worth noting that the decompositional analysis presented in (12) is based on my observation of the linguistic data which seem to suggest that the "rating hierarchy" as a vertical ranking system is not conceptualized in terms of a rich imagery of the human body. Instead, the "head" of the body is probably just a one-shot mapping onto the "best" of the rating system. In other words, there are no correspondences between other lower parts of the body and other lower rankings of the rating hierarchy, which would constitute multiple-shot mappings of so-called structural metaphors (Lakoff and Johnson 1980; see also Ruiz de Mendoza and Pérez Hernández 2011). For instance, in Chinese, it seems, we do not associate "second best" with "neck" or "worst" with "foot". I noticed, however, that in Chinese, especially in some dialects of Chinese, the word 蹩脚 bie-jiao (sprain-foot) means, interestingly, "inferior, shoddy or poor (in quality)". Thus, for example, 蹩脚导演 bie-jiao daoyan (sprain-foot [movie] director) means "incompetent director", and 蹩脚货 bie-jiao huo (sprain-foot goods) means "substandard goods; shoddy work; poor stuff". But one word is not sufficient to justify the existence of a "conceptual metaphor", and we should be cautious not to make overgeneralizations.

What is not present in Chinese, however, does not mean that it is also absent in other languages. If, in any event, such systematic mapping correspondences exist in another language of the world, then the decompositional analysis in (12) needs to be modified to accommodate the difference, such as the one laid out below in (13):

(13)	BES	(CM)	
	a.	BEST IS UPMOST PART OF RATING HIERARCHY	(CM)
	b.	BEST IS SUPERLATIVE OF GOOD	(PR)
	c.	RATING HIERARCHY IS A SYSTEM WHERE	
		ABSTRACT ATTRIBUTES ARE RATED SPATIALLY	(PR)
	d.	good is up (\rightarrow bad is down)	(PM)
	e.	HEAD IS UPMOST PART OF HUMAN BODY	(PR)
	f.	RATING HIERARCHY IS HUMAN BODY	(CM)
	g.	CATEGORIZATION IS DIVISION	(PM)
	h.	CATEGORIES ARE PARTS	(PM)

This analysis is different from (12) in that (13f-h) are added. As a complex metaphor, (13f) maps part of (13e), HUMAN BODY (source), onto part of (13a), RATING HIERARCHY (target). This complex metaphor is further decomposed into two primary metaphors in (13g) and (13h). The advantages of analyzing (13f) as containing two primary metaphors are as follows: (1) the analysis avoids the embarrassment of being unable to account for the gaps in the mappings between two entities (for instance, a "rating system" and a "body"); and (2) the primary metaphors may be found to motivate and constitute other complex metaphors (see Grady's 1997a, 1997b analysis of THEORIES ARE BUILDINGS). Let me cite here another relevant meta-linguistic example: These two primary metaphors certainly ground my decompositional approach as a "systematic way" of analyzing a metaphorical compound as a "system", namely, dividing (i.e., categorizing) it into a variety of kinds of "parts" (i.e., categories) including "levels of structure" and "kinds of components".

4 Conclusions

The research presented in this chapter was done in the spirit of the Cognitive Linguistics thesis of "embodiment situated in the sociocultural context" (Ziemke, Zlatev, and Frank 2007; Frank et al. 2008; Sharifian et al. 2008; Yu 2009a, 2009b; Maalej and Yu 2011). The linguistic data on metonymic and metaphorical mappings analyzed in section 2 fall largely into a foundational template that is framed by the contours of the body and its sensorimotor experience and divided within by its structure and the functions of its parts. But the actual structure built upon it can still look different, theoretically speaking, in infinite ways due to cultural preferences incorporated into its "design". The analytical tool applied in section 3 aims to see, through analytical "dissection", some details of how potentially universal mechanisms and cultural factors could possibly mingle and interact with each other in language and cognition, details which could have been otherwise ignored or overlooked.

Obviously, as an analytical instrument, DAMCA is retrospective in nature, and for that matter inherits the limitations of retrospective analysis. Operated properly, however, it can increase the depth of metaphor analysis, the accuracy of characterization of cultural cognition, and the versatility of the toolbox of Cognitive Linguistics.

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