A Cognitive Approach to Metaphor and Metonymy Related to the Human Body

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1. Introduction

Human beings use their bodies to interact with the outside world. The human body is a significant cognitive tool for human beings to perceive the abstract world and frequently regarded as the dimension to measure things around. As Sage Protagoras, a Greek philosopher once said “Man is the measure of all things” (cited from Wang Yin, 2002: 88). We realize that the human-related metaphor and the human-related metonymy are two general ways of thinking for human. Common people always apply their experiences of the human body to the external world in the terms of various ways. So there are many linguistic words and sentences made of human body words (including nouns, verbs, and adjectives) via metaphor and metonymy.

According to an analysis of figurative language over centuries, the human body is consistently the most frequent source of metaphors (Smith, Pollio & Pitts, 1981). People tend to understand the world first by learning about their bodies including organs. Based on that, people often use the metaphorical and metonymic concepts of the part and organs of body which they are most familiar with (including: head, eye, ears, nose, legs, feet etc.) as the vehicle to comprehend the concepts of other domains. This kind of thing which experienced in language is what we call human-related metaphor and human-related metonymy. That is to say, the human body is of extreme importance in our understanding of the world and plays a crucial role in metaphor and metonymy. Thus, it is interesting to see how both human-related metaphor and human-related metonymy are two main motivating aspects for us to perceive ourselves and the abstract outside world.

1.1 Aim

The aim of this thesis is to survey how human-related terms and some human emotion words which talk about human-related terms (includes some human organ words, some body parts words and some emotional words that related to human) are used metaphorically and metonymically in different contexts. In this paper, the ways in which these expressions are used to understand different target domains are discussed. The objective is to analyze from a cognitive linguistic perspective how
human beings apply their bodies to understand the abstract outside world, and how those bodily experiences influence our human cognition.

1.2 Material

To find out what human-related terms there are, two famous dictionaries are referred to: *Oxford Advanced Learner’s Dictionary of Current English* (A.S. Hornby. 2002 henceforth OALDCE) and *Longman English Dictionary online*. These two famous dictionaries, based in Britain and American, respectively, are to ensure the reliability of the resources and to reduce the risk of using the language incorrectly. These two dictionaries again function as the supplementary to one another. All the 18 examples from these two dictionaries formed a fundamental database to be analyzed. However, this list can not provide all the materials in use, so addition to this, some human-related terms from BNC (*The British National Corpus* (BNC) is a 100 million word collection of samples of written and spoken language from a wide range of sources, designed to represent a wide cross-section of current British English, both spoken and written. What this essay used is the free on line version) are chose to fulfill this purpose. The human-related terms taken from BNC are chose due to it’s universality, popularity and authority all over the world, and its easy access for readers, including the writer of this essay for collecting this kind of material as much as possible. By putting in the human-related terms in BNC, a random of 50 results will be given out for each search. In general, many examples do not include metaphorical expressions of human-related terms for the first time searching, so several times for searching one human-related term is inevitable. All these examples are from the first 50 results that given by the BNC randomly and 10 of them which as the metaphorically and metonymically used of human-related terms are chose for this essay.

1.3 Method

The human body is an important cognitive tool for us to understand the abstract world. Firstly the thesis investigates human-related metaphor from two main perspectives: 1) metaphorical mapping models (mapping from the human domain to the non-human domain and mapping from the non-human domain to the human
domain). 2) the Image schema (human metaphor based on UP-DOWN schema, Container schema and Path schema). Thirdly, analysis different types of body metonymy, including part/whole and part/part metonymies and the ICM will be analysed of that body metonymy. Last but not least, the comparison as well as possible explanations between the human-related metaphor and human-related metonymy is going to be analyzed.

2. Theoretical background

Metaphor and metonymy are two heated topics for scholars over long period of time. A language without metaphor and metonymy is inconceivable; these two forces are inherent in the basic structure of human speech (Ullman, 1979: 223). In the traditional point of view, metaphor and metonymy are merely figures of speech, but cognitive linguistics claim that both of them are important cognitive instruments and ways of thinking of human beings. This section mainly deal with previous studies and those theoretical issues on the concept of metaphor and metonymy, the general description of metaphorical mapping and image scheme and the typical metonymic domains and typical vehicle entities. Among all the issues, the first thing that should be made clear is what metaphor is.

2.1 The concept of metaphor

The word “metaphor” is derived from the old Greek word “metaphora” and the study of metaphor dates back to the ancient Greek Philosopher Aristotle (384 B.C.—322 B.C.). In Aristotle’s Poetics (cited from Lan Chun, 2003: 5), he defined metaphor as consisting in giving the thing a name that belongs to something else; the transference being either from genus to species, or from species to genus, or from species to species, or on ground of anology. He also claims that the greatest by far is to have a command of metaphor. This along can not be imparted to another: it is the make of genius, for to make a good metaphor implies an eye for resemblance (ibid.: 6).
It is easy to see that the traditional approach mainly holds metaphor happens on the word level and is just a linguistic issue. The real breakthrough comes with the publication of I.A. Richard’s book *The Philosophy of Rhetoric* in 1936. He says metaphor is the juxtaposition of two ideas, and a new idea is created through the mutual interaction (Richards, 1936: 89). He further summarized, the metaphoric expression in language, is just “two ideas for one”, “modes of interaction between co-present thoughts” (ibid.: 90). He believed that every three sentences in oral communication are metaphorical, and metaphor is not only a linguistic phenomenon but also a way of human thinking.

Based on Richards’ ideas, Lakoff and Johnson (1980) do the further research of metaphor from a new aspect, they comprehend metaphor as a conceptual phenomenon which is associated with people’s thinking and behaviors. In their collaborated book *Metaphors we live by*, metaphor is studies systematically in the light of cognitive semantics. They hold that metaphor is pervasive in everyday life, not just in language but in thought and action (Lakoff and Johnson, 1980: 4), and our ordinary conceptual system, in terms of which we think and act is fundamentally metaphorical in nature (Lakoff and Johnson, 1980: 5).

From the cognitive linguistic aspect, metaphor is defined as understanding one conceptual domain by using another conceptual domain. Examples of this include when we talk and think about life in terms of journey, about arguments in terms of war, about theories in terms of buildings. We can capture this view of metaphor in a convenient shorthand way: CONCEPTUAL DOMAIN(A) is CONCEPTUAL DOMAIN(B), which is what is called a conceptual metaphor (Kövecses, 2002: 4). Conceptual metaphors can be divided into three kinds according to its cognitive function: structural metaphor, ontological metaphor and orientational metaphor. Structural metaphor refers to the metaphor that the source domain provides a relatively rich knowledge structure for the target concept. That is to say, the cognitive function of these metaphors is to enable speakers to understand target A by means of the structure for the target concept. There are some mappings between the source domain and the target domain (Kövecses, 2002: 33). Ontological
metaphors seem to be to merely give an ontological status to general categories of abstract target concepts. That is to say, we apply object, substance, or containers, not the exactly what kind of object, substance, or container is meant to perceive our experiences (Kövecses, 2002: 34). Unlike the ontological metaphors, the cognitive job of orientational is to make a set of target concepts coherent in our conceptual system. This kind of metaphor has to do with basic human spatial orientations, such as up-down (Kövecses, 2002: 35).

2.2 Metaphorical mapping

Metaphor is not just the notion of similarity or comparison between the literal and figurative meanings in an expression. The transference of metaphor in meaning is realized by constructing mapping between two domains (Lakoff and Johnson, 1980: 5).

The cognitive process that relates literal meanings to extended meanings is known as mapping. As Radden and Dirven once pointed out mapping is the projection of one set of conceptual entities onto another set of conceptual entities (Radden & Dirven, 2007: 12). They take the sentence The microprocessor is the brain of a computer for instance. The metaphorical mapping is as follows: According to a dictionary definition, the brain is the organ inside your head that controls how you think, feel, and move. But the brain here is obviously used in another sense. We realized that the shift in meanings from “organ inside your head” to “microchip of a computer” In this sentence we no longer talking about people but computers. People and their brains belong to the conceptual domain “human being”, which comprises human aspects such as consciousness, rationality, emotions, etc. Microchips belong to the conceptual domain “electronics” which comprises computer technology and other digital equipment such as mobile phones and DVD. The structure of the domain “human being” is mapped onto the structure of the domain “electronics” and, as part of the structures, the “brain” as a body part is mapped onto “microchip” as a part of a computer. Thus, the way a microprocessor function in a computer is understood in terms of the way a brain functions in a human beings.
The words which express human body parts are easily to be mapped onto other semantic domains by the metaphor (Chen, 2005). The human metaphorization includes three different types: 1) the structured mapping from the body part domain to the non-body domain. *e.g.* *He lives in the foot of the hill.* 2) The mapping from the non-body domain to the body part domain *e.g.* *He is such a snake.* 3) The mapping between two organs in the human part domain. The mapping relationship between the source domains to the target domain is relative. i.e. they can be mapped each other not only from the source domain to the target domain, but from the target domain to the source domain (Lu, 2005: 470-485). *e.g.* the image of the word *neck* is used to express the image of the word *bottleneck* based on the metaphor cognition with similar position and form, and in similarity, “*bottleneck for road traffic*” and “*bottleneck for production develop*” based on the metaphor cognition with similar function or attribute (Li, 2001: 118).

Metaphorical mappings from a source to a target are only partial. Only a part of the source domain is utilized in every conceptual metaphor. This is what we called partial metaphorical utilization. This partial structure of the source highlights. That is, provides structure for only a part of the target concept. The part of the target the falls outside the highlighted region is said to be hidden (Kövecses, 2002: 90). *e.g.* AN ARGUMENT IS A CONTAINER: *your argument has a lot of content.* What is the core of his? AN ARGUMENT IS A JOURNEY: We will proceed in a step-by-step argument. We have covered a lot of ground. Concepts in general (both source and target) are characteristized by a number of different aspects. When a source domain is applied to a target, only some (but mot all) aspects of the target are brought into focus. Such like the example: *an argument is a journey.* They focus on a number of the aspects of the concept of argument. They address the issue of the content, the progress they made. Those aspects which are out of focus are what we called hidden. Highlighting are always goes together with hidden.
2.3 Image Schema: The Cognitive Basis of Metaphor

An image schema is a recurring structure within our cognitive processes which establishes patterns of understanding and reasoning the abstract outside world. As Lakoff points out that image schema are directly meaningful (“experiential” & “embodied”), preconceptual structures, which arise from, or are grounding in, human recurrent bodily movements through space, perceptions, and ways of manipulating objects (Lakoff, 1987: 459-461). It is also providing considerably important evidence for metaphorical projections from concrete to abstract domains (Lakoff, 1987: 275).

Johnson (1987), the one who proposed the image schemas theory, puts forward the concept of an image schema as a recurring, dynamic pattern of our perceptual interactions and motor programs that gives coherence and structure to our experience. There are two important characteristics in the image schematic structures. They are non-propositional and imaginative in character. That is, they preconception schematic structures that emerge from our bodily experience and that are constantly operated in our perceptual interaction, bodily movement through space and physical manipulation of objects (Johnson, 1987: xvi).

Image schemas are basic schematic structures that are directly meaningful. There are abundant source domains which developed from our earliest bodily and spatial experiences and hence are immediately meaningful to us. For example, the UP-DOWN image schema reflects the up and down movement we constantly experience in our daily life. e.g. Oil prices are raising again. Hence, the fact that some objects have a hollow space which may be filled with other materials, this developed a CONTAINER schema. e.g. He is in a mess. The PATH schema comes from our understanding of objects moving from one place to another. It consists of a starting point, a goal and a series of intermediate points. e.g. Tom has gone a long way toward changing his personality (Radden & Dirven, 2007: 16).
2.4 The concept of metonymy

Metonymy is defined by Lakoff (1987: 78) as a stand-for relation who exists in only one particular ICM. A conceptual domain, or ICM, can be viewed as a whole that is constituted by parts; more specifically, the conceptual entities, or element, are the parts that constitute the ICM as a whole. There are some background condition in a given ICM including the “stands for” relation that may hold between two elements A and B, such that one element of the ICM, B, may stand for another element A. Given this way of looking at ICM’s metonymies may emerge in two ways (1) either a whole stands for a part or a part stands for a whole. (2) a part stands for another part (Kövecses, 2002: 150).

Lakoff & Turner (1989) they regard metonymy as a type of conceptual mapping. The important point here is that metonymy is seen as a cognitive tool used for conceptualization rather than a merely linguistic strategy or a rhetorical device.

In the traditional view, metonymy is chiefly the use of a word in place of another in order to refer to some entity, where one word can be used for another if the meanings of the words are contiguously related. In the cognitive linguistic view, metonymy is conceptual in nature; its main function is to provide mental access through one conceptual entity to another; it is based on ICMs with specific conceptual relationship among their elements (Kövecses, 2002: 160).

2.5 Typical metonymic domains and typical vehical entities

Metonymy involves speaking about a salient reference point which allows us to access another conceptual entity, the target. In the processing the PART FOR WHOLE metonymy, for example, *The Crown never rejects a bill approved by Parliament*. We mentally access a whole monarch via a salient part crown. We also find the reverse situation of a WHOLE FOR PART metonymy, in which a whole serves as a reference point for accessing one of its parts. For instance, *Our school won the cup*. Here, our school refers to a team of our school. The school is a conceptually salient reference point in that it is a permanent institution. The team is
a fully independent part of the school. Both the PART FOR WHOLE metonymy and WHOLE FOR PART metonymy are conceptual in nature (Radden & Dirven, 2007: 14).

Metonymy concepts are obviously systematic which can be identified in the following metonymic models. 1) THE PART FOR THE WHOLE e.g. *Get your butt over there! We don’t hire longhairs.* 2) PRODUCER FOR PRODUCT e.g. *He bought a Ford. He’s got a Picasso in his den.* 3) OBJECT USED FOR USER e.g. *The sax has the flu today. The BLT is a lousy tipper.* 4) CONTROLLER FOR CONTROLLED e.g. *Nixon bombed Hanoi. Ozawa gave a terrible concert last night.* 5) INSTITUTION FOR PEOPLE RESPONSIBLE e.g. *Exxon has raised its prices again. You’ll never get the university to agree to that.* 6) THE PLACE FOR THE INSTITUTION e.g. *The White House isn’t saying anything. Washington is insensitive to the needs of the people.* 7) THE PLACE FOR THE EVENT e.g. *Let’s not Thailang become another Vietnam. Remember the Alamo* (Lakoff and Johnson, 1987: 37-39).

According to Kövecses (2002: 154), THE PART-AND-PART metonymy can be classified on the PRODUCTION ICM, CONTROL ICM and POSSESSION ICM. PRODUCTION ICMs consist a lot of actions in it and we can consider one of the participates as a product. The production of objects seems to be a particularly salient type of causal action. There are various metonymic relationships involving in the thing produced and the person who produced it. For example: *a Ford.* What is more, there are some subtypes of the PRODUCTION ICM we have, such as AUTHER FOR WORK: *We are reading Shakespeare.* Here producers of highly outstanding product in a culture like author, artists receive particular metonymic attention. THE CONTROL ICM have a controller and a person or a object controlled in it. It gives rise to the reversible metonymic relationships: CONTROLLER FOR CONTROLLED: *Schwarzkopf defeated Iraq.* CONTROLLED FOR CONTROLLER: *The Mercedes has arrived.* THE POSSESSION ICM involving the relationship of control blends into that of possession, and in the relationship a person is in control of an object. The
possession ICM may produce reversible metonymies: POSSESSOR FOR POSSESSED: *This is harry for henry’s drink*. POSSESSED FOR POSSESSOR: *He married money for someone who has money*.

### 3. Analysis and discussion

In this section, the metaphorical and metonymic use of human-related terms for different categories will be examined, ranging from metaphorical mapping, image schema, part-and-whole metonymy, part-and-part metonymy and ICM. For each section three examples are chosen due to the important influence for people’s daily focus of attention with the metaphorical and metonymic expression of human-related terms are selected at random. Furthermore, it still carries out the comparison between the two main aspects. Here follows a careful classification and analysis of the selected examples.

#### 3.1 Mapping Basis of the Human-related Metaphorization

Based on the metaphor that proposed by Lakoff and Johnson and their famous work *Metaphors We Lived By*, Sage Protagorus saids “Man is the measure of all things.” From the aspect of cognitive linguistic, metaphor is an across-domain mapping. The function of it is to perceive one kind of thing in terms of another. As far as body metaphor is concerned, it including two domains: the body part domain and the non-body part domain. The human body metaphorization includes two different types: 1) the structured mapping from the body part domain to the non-body domain. 2) The mapping from the non-body domain to the body part domain (Lu, 2005: 470-485). It is essential to indicate that the non-body domains can be further classified into concrete and abstract domains.

#### 3.1.1 The mapping from the human domain to the non-human domain

In the history of language development, human body terms are those earliest things which used by human beings to recognize experience and express other more abstract materials. According to Kearney and Kaplan, the objects and concepts described in cognitive maps may range from concrete objects to abstract concepts.
(Kearney and Kaplan, 1997 quoted from Tian Xu, 2005: 117). Therefore, this part can be divided into two aspects:

3.1.1.1 Mapping from body part domain to concrete domain

Human beings firstly recognize and experience the outside concrete objects in terms of their body parts. The conceptual domain of human body is used for perceive the concrete objects and materials. Take the body part terms and the river as examples to explain the mapping between the body part domains to the concrete domain. In this context, the body part domain is regarded as the source domain, and the concrete object as the target domain. This can be observed in the following examples:

(1) He lives in the head of the river (BNC).
(2) A small bridge spans the arm of the river (OALDCE).
(3) A number of industries sprang up around the mouth of the river (OALDCE).

Take the body part terms and the river as examples to explain the mapping between the body part domains to the concrete domain. In those expressions, the head of the river, the arm of the river and the mouth of the river people’s head, arm, mouth are used as the source domains to refer to the target domains as the place where a river begins, a long narrow piece of water that is joined to a large area, and the place where the river joins the see. From the examples, we can see that the meaning of the two domains is basically the same, and the psychological image of the head of the river is the same image process when we understand the head of a person.

Similarly, the following examples also belonging to these categories: the surface of the mountain, the eye of a hurricane, the arm of a chair, and the foot of a page. Now we can summarize this kind of mapping into three aspects: 1) mapping based on the position. 2) mapping based on the structure and shape. 3) mapping based on the function.
3.1.1.2 Mapping from body part domain to abstract domain

With the development of society and the human beings themselves, people apply their body terms to perceive the outside world not only to the similarities of positions, structure and shape or function of the concrete object, but to the psychological and functional similarities of the abstract objects. We can exam this kind of metaphor as follows:

(4) *In 1902, a direct line was laid up Clifton Street for the Marton cars to avoid the bottleneck on the Talbot Road* (BNC).

(5) *The way they treat people makes my blood boil* (Longman English Dictionary online).

(6) *The committee’s report went to the heart of the government's dilemma* (OALDCE).

From these examples, we can see the source domains are the body terms and the target domains are those abstract entities. Neck is a part of human organs. The thin and long image of a neck can be mapped onto the image of the thin and long part of a bottle, we call it bottleneck. Because of its thin and long shape, it is always hard to get through. This kind of characteristic is mapped onto the traffic domain. *Bottleneck on the Talbot Road* refers to a place where the traffic cannot pass easily. Human body terms are often used to express the complicated feelings of human beings like happiness, anger, etc. Emotion concepts such as anger, love, happiness, sadness and so on are primarily understood by means of conceptual metaphors. The source domain of emotion concepts typically involve force such as ANGER IS HEAT, and here are expressed like blood boil. Here we use the metaphorical expression to explain the person who is extremely in anger. In the sentence 6, *the heart of the government’s dilemma*. Since the heart is the most significant organs in the human body, we often used it to refer to the key part of some abstract entities such as a matter or a problem.

From these examples, we can see that *the heart of the government’s dilemma* is more abstract than *the bottleneck on the Talbot Road*. In example (5), it is not the
word *blood* itself metaphorically used, but the phrase *makes my blood boil* that is metaphorically used.

### 3.1.2 The mapping from the non-human domain to the human domain

Mapping from the human domain to the non-human domain is very useful for our human beings to understand and express some concrete and abstract concepts. In contrast, the non-human domain can still mapped onto the human domain. This will help human to better perceive themselves and some relevant materials.

#### 3.1.2.1 Mapping from concrete domain to human domain

In our mother nature, animals are closed related to human beings who provide rich basis for conceptualize. This kind of mapping can divided into: the appearance of animal mapped onto the appearance of human beings, the behavior of animal mapped onto the behavior of human beings and the action of animal mapped onto the action of human beings. Just like Kövecses says when metaphor focuses on some aspects of a target concept, we can say that it highlights that or those aspect(s) (Kövecses, 2002: 79). That is to say the mapping from the concept domain to the body part domain can only be partial. Let’s look at the following examples:

(7) *She is that rare bird: a politician with a social conscience* (OALDCE).

(8) *You can tell him from me, he is an ignorant pig* (Longman English Dictionary online).

(9) *He is a tiger in class* (BNC).

In those expressions, *bird* is mapped onto a young woman according to their cute characteristics, *pig* is mapped onto an unpleasant or offensive person and *tiger* is used in substitution for displaying an attribute of character of the person. As mentioned before, these examples are only highlighted on some special aspects: the appearance of a bird, the behavior of a pig and the character of a tiger. What is more, those aspects which are out of focus are what we called hidden.
3.1.2.2 Mapping from color domain to human domain

Color terms are significant cognitive concepts and categories for human beings. After being familiar with those basic types and characteristics of those color terms, human beings start to associate them with metaphorically used. There are three examples illustrate this situation.

(10) She is been in a really black mood all day (OALDCE).
(11) Every now and then, a man like this one needed a reminder that he could not control everything in this world, despite all his money and his terribly blue blood (BNC).

In the above three sentences, black mapped onto a person who is full of anger and hatred, blue blood mapped onto a royal or a noble person.

3.2 Image schema of the Human-related Metaphorization

Image schema plays an extremely important role in the process of format our concepts. When we perceive a scene or an entity, we always understand it by means of elementary image schema. Furthermore, the image schema can metaphorically extended from the physical to the nonphysical concepts. According to the classification of image schema made by Radden & Dirven (2007) that we mentioned in section two, I will discuss how body metaphor is constructed based on image schema such as: The UP-DOWN schema, the Container schema and the Path schema.

3.2.1 Human-related metaphor based on UP-DOWN schema

A cognitive pattern is always formed from the interaction between people and the outside world. During the interaction between human and nature, the spatial orientation comes into being which serves as the basic bodily experience for human. According to Lakoff and Johnson, they point put that most of our concepts are metaphorized to construct some other spatial metaphors (Lakoff and Jonson, 1980: 56), and the examples are the many metaphors with an UP-DOWN orientation. Let us look at the following examples:
(12) My heart sank (OALDCE).

(13) He came down with the flu (BNC).

(14) The boss has a staff of 20 working under him (Longman English Dictionary online).

From the above sentences, we can come to the conclusion: (12) the emotion of a person: HAPPY IS UP and UNHAPPY IS DOWN (13) the health condition of a person: HEALTHY IS UP and SICKNESS IS DOWN (14) the social position of a person: HIGHER POSITION IS UP and LOWER POSITION IS DOWN.

3.2.2 Human-related metaphor based on Container schema

A container schema is an image schema that involves physical or metaphorical boundary. The container schema original from our experience of our own body. Everyone in the world is a container, with a bounding surface and an in-out orientation. Let’s look at this kind of image schema as follows:

(15) He tried to spit out the truth (OALDCE).

(16) He can do no wrong in her eyes (OALDCE).

(17) She took the heart out of me (Longman English Dictionary online).

In (15), the truth is metaphorized as a concrete object and the human body is regarded as a container. That is to say, the person is filled with the truth, so the truth can be spit out from the target container the body. In (16), we considered the eye as a container and the conceptual metaphor is THE FACULTY OF EYE IS THE FACULTY OF MIND. As we all known, what we see determines the way we think. So in the eye can be metaphorically understood as in one’s mind or in one’s opinion. In (17), the human body is metaphorized as a container and the heart is metaphorized as the content in the container. Still, the heart can be regarded as different feelings such as love in this example.
3.2.3 Human-related metaphor based on Path schema

There are three structural elements in our everyday journey: a starting point, an end point and a direction. Similarly, a path schema involves physical or metaphorical movement from place to place. Based on the experience like flying of a stone ejected through the path, a path schema is often used in the operation process of some conceptual metaphors. Here follows these examples:

(18) *I ran my eyes over those pictures* (Longman English Dictionary online).
(19) *Suddenly, the smile left his face* (BNC).

In (18), the eye is metaphorically considered as the source of light and the process of seeing is reflecting the moving of the eye light from the source to the target. The eye light formed a journey path from one picture to the other. In (19), we can always perceive a person’s emotion from the change of his face. In this sentence, the smile is just like a moving entity which disappears from one’s face, which can be seen as the starting point of the path. After that, the smile goes to somewhere. This reflects that the person is going to be unhappy.

3.3 Typical metonymic domains and typical vehical entities

Metonymy is another important cognitive process for us to perceive human-related terms. It is a process in which one conceptual entity, the vehicle, provides mental access to another conceptual entity, the target, within the same domain, or idealized cognitive model (ICM) (Kövecses, 2002: 145). For example: *American doesn’t want another Pearl Habor.* As we can see in this example the word *Pearl Habor* does not refers to the real Pearl Habor but a major defeat war. In contrast, there is nonmetonymic applications in the follow sentence: *We traveled to Pearl Harbol last year.* So in metonymy, We use one entity *Pearl Habor*, to indicate another entity *defeat in war* and try to direct attention to another entity through another entity related to it. That is to say the two entities in a metonymy are contiguously related, or that the two entities are in each other’s proximity. A conceptual domain which can be regarded as a whole that is consists of different parts, and in contrast, the conceptual entities are the parts that constitute the ICM as a whole. So ICM’s
metonymies can be classified into two ways: (1) either a whole stands for a part or a part stands for a whole. (2) A part stands for another part (Kövecses, 2002: 150).

3.3.1 PART-AND-WHOLE metonymy in human-related terms

Typically, the relationship between a whole and a part always applies to things. Here the notion of things should be understood in general. Metonymic concepts allow us to conceptualize one thing by means of its relation to something else. In the case of the metonymy THE PART FOR THE WHOLE, there are many parts that can stand for the whole, which part we pick out determines which aspect of the whole we are focusing on. Let’s look at the following examples:

(20) She resiged as head of the student union (BNC).
(21) She looked around for a familiar face (OALDCE).
(22) We need some new blood in the organization (Longman English Dictionary online).

When we say that there are some good heads in our university, we are using good head to refer to intelligent people. The point is not just to use a part head to stand for a whole person but rather to pick out a particular characteristic of the person, namely, intelligence, which is associated with the head. This PART FOR WHOSE metonymy functions actively in our culture. The tradition of portraits, in both painting and photography, is based on it. If you asked me to show you a picture of my friend and I showed you a picture of my friend’s face, you will satisfy. You will consider yourself to have a picture of her. But if I show you a picture of her body without her face; you’ll consider it strange and will not be satisfied (Lakoff and Johnson, 1980: 37). So it is common to use a face to refer to a person. The same is like we use new blood to refer to a person in the example 22.

3.3.2 PART-AND-PART metonymy in human-related terms

PART-AND-PART metonymy refers to any type of possible relationship of one conceptual entity to another conceptual entity within an ICM and the relationship between parts typically applies to conceptual entities within an event (Kövecses,
This PART-AND-PART body metonymy is reflected in the following expressions:

1) PRODUCTION ICM

There are some actions in a production ICM and one of those participates which in the actions is a product. The production of objects is sometimes a salient type of causal action.

(23) Top: Escort and Orion line-up — not all came at once as Ford promised (BNC).
(24) She likes reading Shakespeare (BNC).
(25) We need a better glove to help us (OALDCE).

In (23), Ford is the producer of the Ford cars. Ford is the person who control the famous car company and the product is a concrete thing, both of them belong to two completely different categories. Here we can come to the conclusion that example (24) use the PRODUCER FOR PRODUCT. Shakespeare is a great writer who wrote lots of masterpieces. In this particular sentence, the AUTHOR’S NAME refers to the WORK. In (25), what we want to mentioned is the user who used the glove. So here is the OBJECT FOR THE USER.

2) CONTROL ICM

(26) The Times hasn’t arrived at the press conference yet (BNC).
(27) North and South Korea exchange artillery fire (NY Times: November 23, 2010 Politics).

“The Times” not merely refer to some reporter or other but also to suggest the importance of the institution the reporter represents. So here is the CONTROLLED FOR CONTROLLER. As for example (27), both the North and South Korea are referring to the armies of the two countries. It is the CONTROLLER FOR CONTROLLED.
3) POSSESSION ICM

The possession ICM are similar with control ICM, in which a person is “in control” of an object. The Possession ICM prefers to choose the possessor as a vehicle:

(28) *He married money* (OALDCE).

The “money” here refers to a person who has a lot of money. So the possessor is the man who in control of a lot of money.

3.4 The comparison between human-related metaphor and human-related metonymy

Human metaphor and human metonymy are two basic imaginative cognitive mechanisms. They are not just figures of speech, but also two powerful cognitive tools for our conceptualization categories. Both of them have some similarities and differences.

3.4.1 The interaction between human-related metaphor and human-related metonymy

Neither metaphor and metonymy are not figures of speech, as they are considered by some traditional approaches (Halliday, 1985: 319-20); not even the results of a wide array of contextual implications, as proposed by Relevance theory (Sperber and Wilson, 1995: 231-37; Papafragou, 1996; Goatly, 1997). Rather they are considered to be the means by which it is possible “to ground our conceptual systems experientially and to reason in a constrained but creative fashion” (Johnson, 1992: 351). In the relationship between examples 1-19 and 20-28 we can see that both the metaphorical and metonymic use of human-related terms are not only act as figures of speech but as a cognitive conceptual which help us to perceive the abstract outside world.

Another important similarity in the metaphor and metonymy is the interaction between them. Goossens (1990) puts forward the term “metaphtonymy” to show
the possible relationship between them. He distinguish (“metaphor from metonymy”) and another where a metonymy functioning in the target domain is embedded within a metaphor (“metonymy within metaphor”) According to Radden (2000: 15), he says that a great number of metaphors is experientially grounded on metonymies, and he calls it “metonymy-based metaphors”. We can applies this notion of metonymy-based metaphor to the study of the polysemous word head. Head is a highly polysemous word not only because it refers to this body part but also because it can be used in a wide variety of contexts. Head can also mean ‘top or summit’. Head in these cases is not understood as part of a body; it metonymically refers to its location with respect to a body. Therefore, we can say that this is an example of the BODY PART FOR LOCATION metonymy. More concretely, we could specify this metonymy a little further and call it HEAD FOR EXTREMITY metaphor.

3.4.2 The differences between human-related metaphor and human-related metonymy

According to Lakoff and Johnson (1980: 36), metaphor is principally a way of conceiving of one thing in terms of another, and its primary function is to help understanding. Metonymy, on the other hand, has primarily a referential function, that is, it allows us to use on entity to stand for another.

The major difference between metaphor and metonymy is that metaphor substitutes a concept with another while a metonymy selects a related term. That is to say, metaphor is for substitution and metonymy is for association. Another difference between metaphor and metonymy is that a metaphor acts by suppressing an idea while metonymy acts by combining ideas. When a person uses a metonymy, the qualities are not transferred from the original word to the metonymy. But in metaphor, when there is a comparison, the comparison is based on the qualities and some qualities are transferred from the original to the metaphor, in the process. For instance, the example 9 “he is a tiger in class” is a metaphor. Here the word tiger is used in substitution for displaying an attribute of character of the person. The
sentence “the tiger called his students to the meeting room” is a metonymy. Here there is no substitution; instead the person is associated with a tiger for his nature.

Metaphor is an extension to a word’s meaning on the account of similarity and metonymy is a way of extending the meaning of a word based on its association to another. Metaphor can be used to refer to a word in an object category to make it in the abstract semantic category. Metonymy can be used in informal or insulting situations as well. For example, the association of brain to a person means he is intelligent, and asshole is a metonymy for an idiotic person in an insulting manner.

4. Conclusion

This study is an attempt to investigate the body metaphors and body metonymies applied in the body terms from the perspective of cognitive linguistic. The BNC, Oxford Advanced Learner’s Dictionary of current English and Longman English Dictionary online are chosen as the data of the study.

Through the analysis of linguistic metaphorical and metonymic expressions of body terms, this study sums up two main mapping models and three kinds of image schema of body metaphor. The features of body metaphorical expressions include: the same cognitive process from body parts to non-body parts and than to abstract concepts. What is more, the essay analysis part-and-whole and part-and-part body metonymy. Furthermore, it also points out the similarities and differences between metaphor and metonymy which helps to understand the body terms more precisely. By classifying and analyzing these metaphorical expressions, we can cone to the conclusion that the categories are systematically and naturally connected with human perceptions and bodily experience of the outside world.

To sum up, this essay found that both metaphor and metonymy re two main motivating aspects for us to perceive ourselves and the abstract outside world. The study also demonstrates the universality and relatively of metaphors and metonymies in human conceptual system.
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Primary Source
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Secondary Sources

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