Mapping in Thought and Language as Evidenced in Chinese

Lily I-Wen Su (蘇以文)*

Abstract

The recent studies on metaphor (Lakoff & Johnson 1980; Johnson 1987; Lakoff & Turner 1989; Sweetser 1990) have proved it to be an important language device that reflects the cognitive source of human thinking. These experientialists claim that metaphors in our languages mirror our ordinary conceptual system and treat metaphors as conventionalized cognitive structure. Adopting the experientialists’ view of interpreting metaphor cognitively as a mapping relation from a source domain to a target domain (Lakoff 1990), the present study explores how metaphors reflect different cultural models by investigating the conceptual metaphor of THOUGHT AS FOOD in current Chinese.

With the data taken from spoken corpus as well as from the balance corpus by the Academia Sinica, we examine the metaphor THOUGHT AS FOOD. Four preposition-schemas are identified to be at work in our conceptualization: THE CONTENT OF THOUGHT IS THE INGREDI-

* Dr. Su is a professor in the Graduate Institute of Linguistics at National Taiwan University.

** This paper has been revised based on comments received at the Conference on Linguistic Creativity of Taiwan (臺灣語言學的創造力學術研討會) held on Jan 14-15, 2000. I am grateful to those participants who provided me with interesting examples, in Chinese as well as in other languages. I’m also grateful to those who benefited me with their keen linguistic insights. Their comments have been well taken and the paper has been revised accordingly.
ENTS OF FOOD, THE QUALITY OF THOUGHT IS THE FLAVOR OF FOOD, THE FORMATION OF THOUGHT IS THE PREPARATION OF FOOD, THE COMPREHENSION OF THOUGHT IS THE DIGESTION OF FOOD. Such conceptual mapping incidentally matches syntactic manifestation in terms of the grammatical parts of speech. The first two proposition-schemas (in terms of MATERIAL) surfaces as the linguistic category of nouns. The proposition-schema (in terms of QUANTITY) is realized as adjectives. The last two (in terms of PRODUCTION and PROCESSING) involve on the other hand the linguistic category of verbs, i.e., verbs of achievement and verbs of accomplishment (Vendler 1967). Such findings support the theory on metaphorical mapping (Ahrens 1999).

Although the conceptual metaphor of THOUGHT/LANGUAGE/IDEAS AS FOOD is not foreign to English (as evidenced in examples like half-baked ideas, or I just can’t swallow that claim), there exist differences as to the prevalence of the type of proposition-schemas found in both languages. Through identifying the proposition-schemas characteristic of the conceptual metaphor examined, we further suggest in our study that metaphorical use of language be taken as a reflection of the underlying cultural differences.

Key Words: metaphor, conceptualization, proposition-schema, thought and language, conceptual metaphor
We cannot get through three sentences of ordinary fluid discourse [without the use of metaphor].... We think increasingly by means of metaphors that we profess not to be relying on. The metaphors we are avoiding steer our thought as much as those we accept.

I. A. Richards (1936: 92)

1. Introduction

Metaphors reflect processes of thinking and therefore serve as a good resource for the investigation of mapping in thought and language. Over the past 20 years, cognitive scientists have discovered things about the nature and importance of metaphor with significant implications for metaphor research. Such findings are startling in the sense that they require us to rethink some of our basic notions of meaning, concepts, and reason. Metaphor is not merely a linguistic phenomenon, but more fundamentally, a conceptual and experiential process that structures our world. With such belief we have gained deep insights in that our conceptual system and all forms of symbolic interaction are grounded in our bodily experience and yet imaginatively structured. This new perspective on metaphor has great impact on linguistics, because studies of metaphor have now become much more a matter of seeking empirical generalizations to explain the phenomena based on various kinds of converging evidence concerning conceptual and inferential structure.

We are now beginning to learn how metaphors are constrained and motivated by structures of our embodied experience and how these metaphors, in turn, constrain our reasoning. We have a growing body of empirical research on the way in which metaphor source domains typically come from basic-level experiences that are shared by human beings because of their shared bodily and cognitive makeup and because of the common features of the environments with which people interact. Metaphors tend to be grounded in common patterns of our bodily experience that have their own corporeal or spatial logic,
which are the bases for most of our abstract conceptualization and inference.

The main purpose of this paper is to investigate the conceptual metaphor of \textit{THOUGHT IS FOOD} in current Chinese. We will address the following questions: In the conceptual metaphor \textit{THOUGHT IS FOOD}, what prominent features in the source domain FOOD are mapped to the target domain THOUGHT? How does this metaphorical conceptualization reflect the Chinese cultural model of thinking? What can mapping between FOOD and THOUGHT reveal about the conceptualization process? Finally, what kind of theoretical implications can be derived from our investigation of metaphor?

\section*{2. Some Crucial Notions and Methodology}

Metaphor has been shown to be an integral component of the way we conceptualize experience and embody it in language. Philosophers as early as Aristotle and traditional rhetoricians have regarded metaphorical expressions as ornamental in language, which play an insignificant role in thought. This view on metaphors, however, has been questioned and challenged by cognitive linguists and philosophers since the 80\textsuperscript{th}. Lakoff and Johnson (1980) provides one of the earliest treatments of metaphor as conventionalized cognitive structure. They believe that metaphors are not peripheral, but instead, essential to human thinking and reasoning. Human cognitive processing is largely metaphorical in that people tend to group things together as such.

Metaphor is, thus, perhaps the most important of all the means by which language develops, changes, grows, and adapts itself to our changing needs. Sometimes, however, metaphors get overworked so that they turn into linguistic deadwood or cliches. When metaphors are successful, they “die” — that is, they become so much a part of our regular language that we cease thinking of them as metaphors at all.

Based on this line of thinking, we consider metaphor as pervasive and essential in language and thought (e.g. Johnson 1987; Lakoff 1993). It is not
just a way of naming, but also a way of thinking. It is a figure of thought as well as a figure of speech (Lakoff 1987). It is a process by which we understand and structure one domain of experience in terms of another domain of a different kind (Johnson 1987). Most studies on metaphors concentrate on two topics: 1) language used as metaphor and 2) language as object of metaphor. The former deems metaphor a restricted communicative code used concurrently with language. For instance, an investigation of the language of food would examine the characteristics of language used metaphorically and ascertain the degree of expressiveness of such use. The study of language as object of metaphor attempts to provide answer to questions such as: a) What do metaphors reveal about language? b) How do speakers view it? and c) How are metaphors for language related to directions in linguistics?

Investigations into metaphor have indeed been the focus of many recent studies in language, literature, cognition, and culture. Some of the researchers place emphasis on the relationship between metaphor and cognition (Fesmire 1994; Lakoff and Johnson 1980; Miller 1982). Philosophers touch the issues of truth and reference (Davidson 1981; Lakoff and Johnson 1980; Kittay 1987), and critics apply metaphor to literature (Lakoff and Turner 1989; Turner 1987). In general, studies of metaphorical use of language have looked at metaphor from two basic angles: as transfer from one cognitive (donor) domain to another (recipient) domain (Lakoff and Johnson 1980), or as grounding of such mappings via image schemata. Both constitute the basis for every act of conceptualization. In what follows we will review briefly some crucial notions related to our study of metaphor. We will also include a description of our data and methodology before we move on to the next section.

2.1. Conceptual Structure

With the conviction that the human conceptual system is fundamentally metaphorical in nature, researchers on metaphors have proposed a number of conceptual metaphors that are basic to human understanding, thinking and rea-
soning (Lakoff and Johnson 1980). Among them are metaphors such as \textit{LIFE IS A JOURNEY, TIME MOVES, MORE IS UP}, which structure our conceptualizations about life, time and quantity. Many of these studies, however, draw their conclusions only from English data. Whether these are the same metaphors that conceptualize many of the linguistic expressions in Chinese have remained unknown. We believe, as Lakoff (1980;1990) claims, that metaphors are grounded in our physical or social/cultural experiences. The metaphorical structure of the most fundamental concepts in a culture, therefore, will be coherent with the most fundamental values of that culture. Since some physical experiences are common to all humans and some other experiences differ from culture to culture, we may reasonably hypothesize that some of these metaphors are universal while others are culturally specific. One of the concerns in this study is to distinguish between the type of metaphor that is universal to human beings and the type specific to the Chinese society or culture.

Lakoff and Johnson (1980) provides one of the earliest treatments of metaphor as conventionalized cognitive structure. Their theory principally involves a mapping relation from a source semantic domain to a target semantic domain, where the source domain concepts are taken to be \textit{literal} and target domain concepts are \textit{figurative}. Their work has spawned a variety of studies, focusing on what metaphors can reveal about cognitive structure (Fauconnier & Turner 1994; Gibbs 1994; Glucksberg & Keysar 1993; Johnson 1987; Kittay 1987; Lakoff 1987, 1993; Lakoff & Turner 1989).

Also advocated in Lakoff & Johnson (1980) is a view of semantics in which human conceptual structure is organized into domains of experiential knowledge (e.g., PHYSICAL OBJECTS, LIVING THINGS, SPACE). A domain is an experiential gestalt; that is, a multidimensional structured whole arising naturally from experience (Lakoff & Johnson 1980: 85), which is closely related to Fillmore’s notion of frame in frame semantics (Fillmore 1985), and Langacker’s notion of experiential domain (Langacker 1987).
A concept is characterized relative to one or more experiential domains, each highlighting and contributing some structure to a particular dimension of the coherent whole (domain). Any domain is a dimension of experiential knowledge highlighting specific aspects of the concepts in that domain.

According to the Lakovian theory, metaphorical concepts are essentially understood by means of a mapping relation between a source domain and a target domain. Structure from the former is imposed upon the latter. Concepts from the latter are metaphorically structured in that they are understood in terms of structure from the former. A metaphor is therefore understood as a domain mapping which can instantiate metaphorical concepts. The mapping is between whole domains and not just individual concepts. This is evidenced by many expressions involving a variety of metaphorical concepts, each united under the same source and target domains (e.g., valuable time, living on borrowed time.)

2.2. Proposition-schema

These are linguistic expressions organized by schemas for propositions. This notion of schema is taken from Hutchins (1980) although what he calls a schema is here referred to as proposition-schema in recognition that mental schemas may organize information other than propositional material. In Hutchins’ terms, a proposition-schema is a template from which any number of propositions can be constructed. The centrality of the schemas identified in terms of their contribution to a cultural understanding is evidenced by the recurrence of propositions cast in metaphors of the phenomena discussed, in addition to other propositions in which these same concepts are non-metaphorically represented throughout the discourse. Proposition-schemas may be used to construct a frame about a certain concept in a particular culture.

A convergent support for the propositional-schemas identified on the basis of the metaphors comes from evidencing how these schemas articulate with one another in a particular culture. In order to uncover the logic of such reasoning, it is necessary to decode the metaphors involved in which such rea-
soning is frequently couched to reveal the common schemas underlying these metaphors. And the more complex schema is created by conjoining two or more such propositions in a causal relation. The sequence of causally related proposition-schemas displayed represents a widely shared understanding of how a particular concept works in that culture.

2.3. Conduit Metaphor

Conduit metaphor is a hypothesized cognitive association between communication and the process of sending and receiving packages. It has played a central role in the development of linguistic theory of conceptual metaphor. Following up on Reddy’s article (1993), and using their own conventions for presenting metaphorical mappings—i.e., systematic correspondences between different conceptual domains, such as linguistic communication and the transfer of containers—Lakoff and Johnson (1980) proposed the following breakdown of the conduit metaphor into a set of conventional correspondence pairs:

a. IDEAS/MEANINGS ARE OBJECTS

b. LINGUISTIC EXPRESSIONS ARE CONTAINERS

c. COMMUNICATION IS SENDING

In Lakoff and Johnson’s formulation, the speaker puts ideas (objects) into words (containers) and sends them (along a conduit) to a hearer who takes the idea/objects out of the word/containers (p.10). Such concise description captures the essence of Reddy’s proposal, and the same view is expressed by Gibbs (1994: 151): communication consists of finding the right word/container for your idea/object, sending this filled container along a conduit or through space to the listener, who must then take the idea/object out of the word/container. The conduit metaphor is in fact a metaphorically based model, repre-

1 Such formulation has, of course, been revised by other linguists. Grady (in Koenig 1998) argues, for example, that a close examination of data associated with conduit metaphor reveals that there are important aspects of the evidence unaccounted for by an existing analysis as such. We however will simply use Lakoff & Johnson’s classic definition as presented in their groundbreaking work *Metaphor We Live By* (1980) in which they laid down many of the principles of current theory in this area.
senting another aspect of the broader cultural model which is commonly employed by language users in understanding human communication.

2.4. **Invariance Hypothesis**

Lakoff and Turner (1989) argues that the poetic language is not essentially different from ordinary language in that it makes use of the same basic conceptual metaphors we employ in our daily thinking and reasoning. The difference between the poetic language and ordinary language lies in the way these conceptual metaphors gets extended, elaborated, questioned, or composed. Lakoff (1990) further proposes the Invariance Hypothesis to characterize the regularities in both our conceptual and linguistic systems. The invariance Hypothesis claims that the portion of the source domain that is mapped preserves cognitive typology. And since the source domains of some metaphorical concepts such as the understanding of time, states, events, actions, etc. are structured by image-schemas, it is suggested that reasoning involving these concepts is fundamentally image-based.

Invariance Hypothesis is advanced based on the assumption that metaphorical mappings preserve the cognitive topology of the source domain (Lakoff 1990). This means that in conceptualization, the inference process in the source domain is similar to that in the target domain, which is accomplished through the cognitive schema—a schema of an image or a proposition type.

Lakoff not only proposes the Invariance Hypothesis to explain the systematicity in the linguistic correspondences, but also highlights the cognitive nature of metaphor. From a cognitive point of view, Invariance Hypothesis is used to explain that the use of metaphor is to govern reasoning and behavior based on that reasoning (Lakoff 1990). Lakoff (1990) further suggests that we can take this process of reasoning as a base to the possibility for understanding novel extensions in terms of the conventional correspondences.

---

2 To understand the novel metaphor *nongshou mama 'xiang ting' de hua* (弄熟媽媽想聽的話) to make what mother wants to hear well done, one appeals not only to the conceptual
2.5. Data and Methodology

Most of the earlier work on metaphor resulted from prior assumptions about concepts and language. It relied chiefly on our intuitions about the cognitive content of metaphors, and its argument was based typically on only one or two allegedly representative examples that were supposed to underwrite sweeping claims about all metaphor. For the most part, these kinds of arguments are no longer regarded as rigorous and convincing. If one wants to make a claim about how a certain kind of metaphor works, for example, it is necessary to analyze several examples of such metaphors, providing generalizations in the form of detailed conceptual mappings that apply for each one. One must then trace out the ways in which these mappings constrain the conceptual inferences we make. In other words, a strong argument depends on the empirical evidence that can be brought to bear in support of one's generalizations about metaphor or about any other form of imaginative activity. The standards for what counts as evidence and arguments have changed for the better.

One prominent goal of discourse analysis is to uncover the conceptual structures denoted by a discourse. The data for this study come, other than those based on the native speakers’ intuition, mainly from Chinese linguistic corporuses based on natural discourse. The corpus data is based on the so-called balanced corpus provided by the CKIP (Chinese Knowledge Information Processing Group) of Academia Sinica. It is a Chinese corpus of 3.5 million words, with their parts-of-speech tagged. In addition to the two sources mentioned, we also rely to a great extent on information contained in the dictionaries. The dictionaries we consulted are the Ci-yuan 《詞源》，which includes metaphor THOUGHT IS FOOD, but also to the principle that the inference process in the target domain THOUGHT is analogous to the process in the source domain FOOD. That is, one needs to associate nongshou shiwu (弄熟食物) first with the meaning of 叫 make the food well done. Such meaning then is mapped to the THOUGHT domain, and one needs to be able to make the inference that what is well done is ready to be served. And, if a hearer feels 叫 ready 叫 about the message, he really understands its content.
words and phrases of both classical and contemporary Chinese, and a Chinese metaphor dictionary compiled by Lee (1992).

In the analysis of the conceptual metaphor *THOUGHT IS FOOD*, we need to identify expressions reflecting such mapping relationships from the corpus. We first started with the prominent features in the source domain FOOD. We looked into various aspects related to FOOD, including its types, its making, its flavor, and even its absorption. The target domain THOUGHT is defined in a very broad sense. It includes not only human thoughts or ideas, but also human knowledge in the form of spoken and written language.

3. **Proposition-schemas in the Conceptualization of**

   **THOUGHT IS FOOD**

To understand the conceptualization of a metaphor, we generally explain the conceptualization as the mapping from a concrete source domain to an abstract target domain (Lakoff 1990). Thus in discussing our findings of the Chinese metaphor *THOUGHT IS FOOD*, we will be looking at the conceptualization made possible via the so-called proposition-schemas. Four aspects in the FOOD domain are identified. They are *ingredients of food, flavor of food, preparation of food, and digestion of food*. They are mapped conceptually into the following aspects of the THOUGHT domain: *content, quality, production, and comprehension of thought*.

**3.1 THE CONTENT OF THOUGHT IS THE INGREDIENT OF FOOD**

We have often come across the following expressions in Chinese, uttered mostly by young speakers:

1. Zhechang yanjiang hen you liao. (這場演講很有料。）
   
   *This speech is very informative.*

2. Ta shi yiwei hen you liao de xuezhe
   
   *He is a very informative scholar.*

   (1)
   (2)
He is a very learned scholar.

These two sentences use the term you liao (有料) “have ingredient” to refer to the content of the speech or the knowledge of a scholar, while liao (料) “ingredient” is originally associated with the ingredients or content of food. The ingredients of food are conceptualized here as the content of thought/language/knowledge via the metaphorical use of the word, originally meaning the food’s ingredients.

### 3.2 The Quality of Thought is the Flavor of Food

In English, there are metaphorical expressions such as a sweet thought or a bitter thought, which use the flavor of food to describe the quality of thought. In Chinese, we have similar expressions like:

(β) tian yian mi yu (甜言蜜語)
- sweet word honey language
- honeyed words

(γ) jian suan kebo (尖酸刻薄)
- sharp sour mean
- pungent

Example (β) shows that the flavor of food tian (甜) and mi (蜜) are used metaphorically to modify the following nouns yian (言) word and yu (語) language. Via the conduit metaphor, both word yian and language yu are conceptualized as objects, capable of loading, or expressing one’s thought. The original meaning of tian yian mi yu (甜言蜜語) in Chinese is in fact honeyed words, but the phrase is now conventionalized with the metaphorical meaning of sweet or flattering language. Therefore, the flavor of food is metaphorically transferred to as the quality of thought. The same can be said of the phrase jian suan kebo (尖酸刻薄), as in (γ), in which the suan (酸) sour flavor is conceptualized as a pungent...

---

3 For example, haoliao (好料) good stuff in Southern Min means that the food is made of good material.
way of talking.

Other than tian / mi (甜/蜜) ᵉ sweet/honey ᵉ and suan (酸) ᵉ sour, we also find in Chinese similar uses in terms of flavors, as shown in Figure 1 below:

**Fig. 1 THE QUALITY OF THOUGHT IS THE FLAVOR OF FOOD**

<table>
<thead>
<tr>
<th>Domain of FOOD (Flavors)</th>
<th>Domain of THOUGHT (Examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>酸</td>
<td>-- 尖酸刻薄</td>
</tr>
<tr>
<td>甜蜜</td>
<td>-- 甜言蜜语</td>
</tr>
<tr>
<td>-- 甜言蜜语</td>
<td>-- 言蜜腹剑</td>
</tr>
<tr>
<td>苦</td>
<td>-- 苦句⁴</td>
</tr>
<tr>
<td>-- 苦言/苦語³</td>
<td>-- 却没有人敢承认这是出的饿主意</td>
</tr>
<tr>
<td>馊</td>
<td>-- 却没有人敢承认这是出来的 cinemas</td>
</tr>
<tr>
<td>萧/素</td>
<td>-- 有吴伯雄在的场合</td>
</tr>
<tr>
<td>-- 萧素笑話不斷</td>
<td>-- 醉儒⁶</td>
</tr>
</tbody>
</table>

In Figure 1, we can see that various flavors from the FOOD domain are metaphorically extended and used to qualify the THOUGHT, as shown by the examples listed in the middle column. For instance, ku (苦) ᵉ bitter ᵉ is used metaphorically to modify spoken words, as in ku yian / ku yu (苦言/苦語) “words for sarcasm,” while the flavor “unadulterated” is used to modify the knowledgeable, as in chunru (醇儒). What gets mapped in the target domain of THOUGHT may either be concepts or ideas. Again, in order to make such

---

⁴ This term means “sarcastic words” (挖苦的話) in Chinese.
⁵ The two expressions mean “words grating on the ear” (逆耳的話) in Chinese.
⁶ Chunru (醇儒) in Chinese refers to “knowledgeable and learned scholars” (學識精純的學者).
mapping possible, we need to appeal to the conduit metaphor of THOUGHT IS OBJECT. Via the proposition-schema of THE QUALITY OF THOUGHT IS THE FLAVOR OF FOOD, we thus are able to understand the linguistic expressions in question.

Interestingly, this claim to conceptualize the quality of the THOUGHT as the taste of FOOD is further evidenced in phrases such as sou zhui (馊主意) “rotten idea.” If food becomes sou (馊) “rotten,” the smell is definitely not good, and thus, the metaphorically derived phrase is also endowed with the negative connotation. It is worth pointing out that for some reason, all the examples under this category, as listed in Fig. 1, are associated with negative denotation; even tian yian mi yu (甜言蜜語) is not considered culturally positive. The only exception we found is chunru (醇儒) knowledgeable and learned scholars. 

3.3. THE FORMATION OF THOUGHT IS THE PREPARATION OF FOOD

In order to understand (5) and (6), we need a proposition-schema which dictates that the production or formation of THOUGHT is conceptualized as the preparation of FOOD:

(5) Zhongyang yanjiuyuan de yuanwu huiyi yi zai yunniang Academia Sinica DE assembly meeting already Asp ferment yige xin de yian a new DE proposal

(中央研究院的院務會議已在醞釀一個新的議案。)

“The assembly meeting of Academia Sinica has tried to come up with a new proposal.”

(6) ouzhou yi wancheng le zhezhong moshi, women que lian Europe already finish Asp this mode, we even

---

7 It might be due to the fact that this term refers to the person rather than thought or ideas. The mapping is first to the domain of THOUGHT and then via metonymy, the person with the thought.
guannian yunniang dou hai meiyou
crcept ferment yet not have

Europe has already completed such a mode, yet we don’t even have the slightest concept.

*Yunniang* (醯酿) “fermenting” above means the formation of a proposal or that of a concept. As we can see from these two examples, the process involved in the formation of new concepts is viewed as analogous to the process of food preparation. The process of forming a concept or an idea in our brain is considered a process similar to that of food preparation. The original meaning of *yunniang* (醯酿) as fermenting (of wine) has gone through metaphorical transfer to refer to the abstract notion of forming a new thought or concept. Such notional transfer is made possible via the metaphorical conceptualization, based on the proposition-schema of THE FORMATION OF THOUGHT IS THE PREPARATION OF FOOD.

The new metaphorically derived meaning of *yunniang* (醯酿) as seen in (5) and (6) is already conventionalized. It should be noted, however, that not every culinary lexicon used to describe the act of cooking can be used metaphorically as discussed here. Only very few examples are found in our data.  

**3.4. THE COMPREHENSION OF THOUGHT IS THE DIGESTION OF FOOD**

In Chinese, there are a lot of verbs describing the process of digestion used metaphorically to express the concept of THE COMPREHENSION OF THOUGHT IS THE DIGESTION OF FOOD. In this study, digestion refers to the process of assimilating and decomposing food into a form that can be

---

8 Another example we find in the dictionary is *zhiguo* (炙赧). It is a classical Chinese phrase that means *shan yu yilun, taotao bu jue* (善於議論，滔滔不絕) skilled in debating. The verb *zhi* (炙) in this phrase is a culinary verb which means to roast or grill. Thus the process of roasting *zhi* (炙) is getting mapped and refers to the productivity of thoughts in debating.
absorbed by the body. Such conceptualization can be illustrated by the following example, frequently used by the speakers of Chinese:

(7) Yi fanchu de fangshi xiaohua jiu you zhishi

with rumination DE way digest old have knowledge

(以反芻的方式消化舊有知識)

“to digest what one already knows by rumination”

Fanchu (反芻) “rumination” literally refers to a special way of digesting food peculiar to cows. It is now used metaphorically to mean the re-digestion of knowledge, whereas knowledge is taken as a type of THOUGHT in its broad sense. Note that the word fanchu (反芻) “rumination” implies to digest again what has already been absorbed or taken in, which is a concept built upon THE COMPREHENSION OF THOUGHT IS THE DIGESTION OF FOOD.

The verbs expressing this type of mapping relationship range from the chewing and biting to the tasting and swallowing of food. Below is a listing of such verbs as found in our data together with the respective mapping relationship (see figure 2).

As we can see from Figure 2, the semantic range of digestion includes eating, chewing, swallowing, digesting, absorbing and even enjoying (in the sense of having) the FOOD. These verbs, originally used only in the FOOD domain, are metaphorically used to refer to the processing or the comprehension of knowledge, as clearly indicated in the examples placed in the domain of THOUGHT. For instance, zhe ju hua yizhi rang wo fanfu jujue buyi (這句話一直讓我反覆咀嚼不已) means “I keep on pondering on the words spoken,” while jiang zhe yinian lai de suo xue wanzheng de chendian xiaohua (將這一年來的所學完整地沉澱消化) refers to “digesting what has been learned in the past year.” What is meant by THOUGHT here can be either abstract or concrete: it may be one’s knowledge suoxue / zhishi (所學 / 知識), the result of research, yianjiu chengguo (研究成果), or simply the utterance, the somewhat concrete hua (話) spoken words. ☞
**Fig. 2. THE COMPREHENSION OF THOUGHT IS THE DIGESTION OF FOOD**

<table>
<thead>
<tr>
<th>Domain of FOOD (digesting verbs)</th>
<th>Domain of THOUGHT (Examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>咀嚼</td>
<td>-- 這句話一直讓我反覆咀嚼不已</td>
</tr>
<tr>
<td>品嚐</td>
<td>-- 只要慢慢品嘗自然就能領悟其中的樂趣</td>
</tr>
<tr>
<td>吞</td>
<td>-- 嚐嘐吞嚥</td>
</tr>
<tr>
<td>享用/饕</td>
<td>-- 使我們無法立即享用這項美好的研究成果</td>
</tr>
<tr>
<td>消化</td>
<td>-- 將這一年來的所學完整地沉澱消化</td>
</tr>
<tr>
<td>反芻</td>
<td>-- 以反芻的方式消化舊有智慧</td>
</tr>
<tr>
<td>倒胃口</td>
<td>-- 他的話真叫我倒胃口</td>
</tr>
<tr>
<td>吸收</td>
<td>-- 知識分子要吸收與自己相關的專業知識</td>
</tr>
</tbody>
</table>

It is worth noting that this proposition-schema together with the proposition-schema *THE QUALITY OF THOUGHT IS THE FLAVOR OF FOOD* are the most productive ones in Chinese. Both of them constitute 92% of the examples identified. The majority of the data encountered in the linguistic metaphor *THOUGHT IS FOOD* are conceptualized through these proposition-schemas.

---

9 Based on the data collected, these two proposition-schemas are of the same productivity. Each of them constitutes about 46% of the instances identified.
4. Towards a Mapping Theory

In the course of our study, we came to the realization that there exhibits interesting syntactic correlation with the proposition-schemas identified. In this section we investigate such syntactic phenomenon and the nature of mapping.

4.1. Mapping and Its Syntactic Manifestation

The syntactic features of the four proposition-schemas we identified above deserve some discussion. The mapping from the ingredient of food to the content of thought is made possible by the part of speech known as nouns. The linguistic expressions in the food domain used metaphorically to express the quality of thought belong to the linguistic category commonly known as adjectives. And it is by way of verbs that the last two proposition-schemas are expressed. This is reflected in Figure 3.

A closer examination of the last two proposition-schemas involving the verbs reveal that these verbs can be further divided into two types (semantically as well as syntactically) to further distinguish these two different proposition-schemas. In conceptualizing the formation of thought as the preparation of food, we see that the verbs describing the culinary actions belong to the category of accomplishment verbs (Vendler 1967), which are in fact a kind of

---

10 This verb classification scheme was proposed by Vendler (1967) in order to account for the observation that as far as the notion of time is concerned, verbs can be subdivided into four types in order to account for the more subtle presuppositions associated with verbs. In English, we can easily recognize the difference between achievement and accomplishment verbs by the syntactic behavior of whether they may take the progressive tense. Such distinction is however hard to be made in Chinese, and our categorization is mainly based on semantic criteria of boundedness (Givon 1993). If an event is bounded and telic, then the verb used to describe such action will be termed “achievement,” as in He won a race. If an event is understood as unbounded and atelic, then the verb will be termed “accomplishment,” as in He is drawing a circle. Vender’s verb classification scheme is made possible by distinguishing between those that allow continuous tenses, i.e., those that refer to periods of time, and those that instead call for time instants. The former includes the so-called activities and accomplishments, and the latter,
event verbs (Givon 1993). On the other hand, in conceptualizing the comprehension of thought as the digestion of food, we rely on another set of verbs called the achievement verbs by Vendler (1967), which are also verbs designating events (Givon 1993).

It should be fairly clear by now that the Chinese conceptual metaphor THOUGHT IS FOOD entails the mapping of various aspects from the source domain of FOOD to the target domain of THOUGHT. It may simply be coincidental that each proposition-schema subsumed by such conceptualization falls into one distinct category in terms of the grammatical part of speech, but it may also be theoretically significant.

4.2. Aspects of the Source Domain that Get Mapped

With digestion being defined here as the process of turning food into a form that the body can use, the complete sequence of digestion is involved states and achievements. These verbs can then be further differentiated with respect to temporal uniqueness and definiteness. Verbs representing accomplishments can take the progressive aspect, but achievement verbs cannot. Achievements occur at a single moment and may imply repetitious reading.
and mapped onto the whole spectrum of comprehension. It includes the input of information, the processing of information, and finally, the output, where the input takes the forms of words or language.

Following such a viewpoint, our finding on the syntactic manifestation and the conceptual mapping supports Ahrens’ (1999) claim on metaphorical mapping. Ahrens claims that mapping from the source to the target domain generally implies mapping of the following, which are some key elements in the source domain:

1. What does it have regarding its composition?
2. What is/are the important feature(s) it possesses?
3. What can it do or what can be done to it?

Ahrens (1999) uses ARGUMENT IS BUILDING as an example. In terms of the make-up of the source domain, a building has a foundation, so an argument should be established on a certain ground or basis. While the most important feature of a building is its stability, so should an argument be well built and solid. As to what we can do to a building, we can either build it up, or knock it down; we can do the same to an argument.

From a slightly different point of view, the three questions above in fact point to three aspects in the source domain: the essence, the quality and the function. What we have identified above regarding the conceptual metaphor of THOUGHT IS FOOD answers the three questions posed. The ingredient is the essence of food; the flavor or taste is what determines the food quality; and the production and the digestion are what can be done to food with respect to the functions it serves.

It would not be difficult then to understand why the three aspects are expressed respectively via three different syntactic categories. Nouns by nature are assigned to name the essence, adjectives the quality, and verbs the function. This finding of ours supports indirectly what Ahrens’ (1999) claim on mapping principles and knowledge representations.
5. Some Theoretical Considerations

By claiming that the process of conceptualization of THOUGHT IS FOOD is the mapping from concrete source domain FOOD to the abstract target domain THOUGHT, our findings above support Lakoff’s Invariance Hypothesis (1990). Under the concrete source domain FOOD, we have located four prominent features: ingredient of FOOD, flavor of FOOD, production of FOOD, and digestion of FOOD. These aspects of the source domain are then mapped to the target domain THOUGHT as content of THOUGHT, quality of THOUGHT, creation of THOUGHT, and comprehension of THOUGHT. Such mapping is made possible via the four proposition-schemas identified.

However, not all examples encountered in our data fit nicely into the above-mentioned framework. Mapping is in fact a complicated cognitive effort in which multi-level conceptualization is a must in order to explain the data involving the conceptualization of THOUGHT IS FOOD.

5.1. Metaphors upon Metaphors

Example (8) represents an interesting case in the sense that it should have been predicted by one of the proposition-schemas under the metaphor THOUGHT IS FOOD:

(8) Wo man duzi de hua, yishi ye shuo bu wan
    I full belly DE words, a moment either speak not finish
    (我滿肚子的話，一時也說不完。)

I have tons of words that cannot be expressed in a moment.

Yet, we find it difficult to come up with such proposition-schema. The difficulty lies in that it actually entails a kind of mapping relationship that is much more complicated than what has been discussed so far. In (8), duzi (肚子) belly the body organ containing food is metaphorically referred to as the container for words. One’s belly is viewed as the container of food because it is generally regarded as the location where food is stored and digested. The
literal meaning of the sentence says that there is a full load of words inside the belly. Of course, words here will have to be first conceptualized as something that can be contained through the conduit metaphor \textit{WORDS ARE OBJECTS}, and of course, thought is expressed via words or language.

In order to understand a metaphor such as (8), one needs, in addition, the image-schema \textit{THE CONTAINER OF FOOD IS THE CONTAINER OF THOUGHT}. With this, what is contained in the belly, the content of container in the FOOD domain, can be mapped to yield the words, understood as the content of the container in the THOUGHT domain. In fact, we need to appeal to the following proposition-schema \textit{QUANTITY OF THOUGHT IS MEASURED BY THE CONTAINER OF FOOD} so that the other examples of this category can be understood. Note that it is through the linguistic category of nouns that the containers are expressed:

\textbf{Fig. 4 THE QUANTITY OF THOUGHT IS MEASURED BY THE CONTAINER OF FOOD}

\begin{center}
\begin{tabular}{|c|c|}
\hline
\textbf{Domain of FOOD} & \textbf{Domain of THOUGHT} \\
\hline
(Containers) & (Examples) \\
\hline
肚子 & -- 我滿肚子的話，一直也說不完 \\
\hline
腸 & -- 搜遍枯腸，卻找不出反駁的理由 \\
\hline
腹 & -- 滿腹經論 \\
\hline
\end{tabular}
\end{center}

In these examples, the human organs of duzi (肚子) “belly,” chang (腸) “bowel,” and fu (腹) “abdomen” are either the actual container of FOOD, like “bowel,” or the place where the digestive system is located, like “belly” or abdomen. These physical parts are taken as the containers of FOOD. Through mapping, these containers of FOOD are metaphorically understood as the container of THOUGHT so as to measure its quantity. It may be a case of \textbf{too many} words, like (8), or \textbf{too much} knowledge, as in \textit{man fu jinglun (滿腹}
經緯), using the \textit{fu} (腹) “abdomen” to mean one’s being very knowledgeable.

It may be, on the other hand, a case of \textbf{too little}, or even \textbf{none}, as in the metaphorical expression of \textit{soubian kuchang, que zhaobuchu fanbo de liyou} (搜遍枯腸，卻找不出反駁的理由) “to run out of words for rebuttal.” Thus the quantity of \textsc{thought} can be measured by the container of \textsc{food} through the proposition-schema \textsc{the quantity of thought is measured by the container of food}.

5.2. A Sketch of Human Conceptualization

Thus, the comprehension of a simple linguistic expression such as (8) in fact entails mapping of a hierarchical nature:

\begin{center}
\textbf{Fig. 5 A Theoretical Sketch of Conceptualization}
\end{center}

\begin{center}
\begin{tabular}{|c|c|c|}
\hline
\textbf{Linguistic Expression-Metaphor} & \textbf{Conceptual Metaphor} & \textbf{Proposition-schema} \\
\hline
\textit{满肚子的话} & \textsc{thought is food} & \textsc{the quantity of thought is measured by the container of food} \\
\hline
\end{tabular}
\end{center}

\begin{center}
\begin{tabular}{|c|c|}
\hline
\textbf{Conduit Metaphor} & \textbf{Image-schema} \\
\hline
\textsc{words are objects} & \textsc{the container of food is the container of thought} \\
\hline
\end{tabular}
\end{center}

In spite of the fact that the mapping relationship above is complicated, it nevertheless displays the same syntactic characteristics: the linguistic category used to accomplish such a task is the part of speech known as nouns. Nouns would be the only natural candidate used to refer to the physical human parts understood as the containers, or the locations for the digestion of \textsc{food}, which may in turn serve as the containers for measuring the quantity of \textsc{thought}.

We will use (9) as another example to illustrate the complexity of metaphorical expressions:
In order to understand the meaning of \((9)\), additional proposition-schema is necessary other than the conceptualization of THOUGHT AS FOOD. You (油) “oil” and cu (醋) “vinegar” are two kinds of food seasoning added to bring out the flavor. Such addition is often unnecessary just like the unnecessary elaboration of simple facts. You (油) “oil” and cu (醋) “vinegar” are peripheral to food, so is superfluous decoration to language. In fact, linguistic expression like \((9)\) is comprehensible to us because of the following:

1. **THOUGHT IS FOOD**
2. **ELABORATION OF THOUGHT IS THE SEASONING OF FOOD**
3. Conduit Metaphors
   a) **IDEAS ARE OBJECTS**
   b) **WORDS ARE CONTAINERS OF IDEAS** (a kind of thought)

Along the same line, we can add such examples as *jinjin youwei* (津津有味) “tasteful; interesting” and *suoran wuwei* (索然無味) “insipid, boring.” In these two examples, the interestingness of THOUGHT is conceived as the taste of FOOD, resembling the proposition-schema THE QUALITY OF THOUGHT IS THE FLAVOR OF FOOD (see 3.2). Please note that these two examples, however, differ from the examples given in 3.2 in that the mapping is realized here via the linguistic category of noun, i.e., *wei* (味) “taste.” Such examples may serve as a bridge making possible the conceptualization of examples like *jiayou tiancu* (加油添醋) “to add unnecessary details.”

We can now see how complicated a metaphor may entail cognitively. Human mind is capable of processing hierarchically organized knowledge, which enables us to understand the intricate meaning expressed by a seemingly simple metaphor.
6. Conclusion

To wrap up our study, we will first summarize our findings in Section 6.1, and then pinpoint in 6.2 the implication of our study from a cultural perspective.

6.1 A Brief Summary

Based on what has been discussed, the following diagram best represents roughly the kind of conceptual mapping of *THOUGHT IS FOOD* in Chinese:

**Fig. 6 The mapping relationship of the conceptual metaphor “THOUGHT IS FOOD”**

```
<table>
<thead>
<tr>
<th>FOOD</th>
<th>THE CONTENT OF THOUGHT AS THE INGREDIENT OF FOOD</th>
<th>THOUGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient</td>
<td>Content</td>
<td>Content</td>
</tr>
<tr>
<td>Flavor</td>
<td>QUALITY OF THOUGHT AS FLAVOR OF FOOD</td>
<td>Quality</td>
</tr>
<tr>
<td>Preparation</td>
<td>CREATION OF THOUGHT AS PREPARATION OF FOOD</td>
<td>Formation</td>
</tr>
<tr>
<td>Digestion</td>
<td>COMPREHENSION OF THOUGHT AS DIGESTION OF FOOD</td>
<td>Comprehension</td>
</tr>
</tbody>
</table>
```

Such mappings display neat correspondences in terms of the grammatical parts of speech in each of the four proposition-schemas identified. The ingredient-content mapping between FOOD-THOUGHT is made possible by nouns; the flavor-quality mapping by adjective. The accomplishment verbs carry out the preparation-formation mapping relationship and the achievement verbs the digestion-comprehension mapping relationship.
It should be made clear here that the proposition-schemas identified here are by no means exhaustive in the linguistic realization embodying the conceptual metaphor of THOUGHT IS FOOD in Chinese. For instance, **yao wen jiao zi** (咬文嚼字) “to pay excessive attention to wording” cannot be understood without appealing to this conceptual metaphor, and it is made possible by taking the refining of utterance/thought as the manner of food consumption.\(^{11}\)

### 6.2 Implications of the Study

We discovered that certain features of the source domain are more prominent and more often mapped in Chinese. We believe that different languages, though appealing to the same conceptual metaphor, use different strategies in this regard—different strategies with respect to the variety and the degree of productiveness of the conceptual schemas. That is to say, the conceptual metaphor may be universal, but the strategies used will be subject to language-specific resources. Metaphor research may help us build up the language-specific cultural model as well as reflect cultural differences based on the models identified.

Since language is part of culture, metaphor is one of the most important linguistic features in language that reflect cognitive vision and epitomize cultural context. The cross-language study of metaphor, therefore, may shed light on cross-cultural similarities and dissimilarities in ways of thinking and speak-

---

\(^{11}\) In Chinese, **yao wen jiao zi** (咬文嚼字) metaphorically means “to pay excessive attention to wording.” Here **yao** (咬) “bite” and **jiao** (嚼) “chew” are two verbs which were originally used to refer to the action of chewing, which is part of the digestive process. To understand the expression **yao wen jiao zi** (咬文嚼字) “to pay excessive attention to wording,” one needs to appeal first to the conduit metaphor **THOUGHT IS OBJECT** so that the abstract thought can be conceptualized as letters and words. Then, the consumption of letters **wen** (文) and words **zi** (字) is compared to the action of chewing. Such action is then metaphorically conceived as the comprehension and understanding of thoughts. **yao wen jiao zi** (咬文嚼字), literally meaning biting and chewing on words, is a hyperbole, exaggerating the method of how words are, according to the conceptual metaphor of **THOUGHT AS FOOD**, to be “eaten,” or “consumed.” When such an act of overdoing is mapped from the domain of food consumption to the target domain of thought, we have a metaphorical reading, which is, “to pay excessive attention to wording.”
ing. A well-understood metaphor in one culture may have entirely different meanings in another part of the world. A dragon is a symbol of evil to the western world, yet a traditional image of royalty to the oriental world.

A new approach to the study of systems of folk classification is to view culture as cognition (Keesing 1974). Such is in fact the view held by Goodnenough (1957:167): “Culture is... the form of things that people have in mind, their models of perceiving, relating, and otherwise interpreting them.” This definition unfolds an ambitious theoretical program. It is concerned with the organization of knowledge. It contemplates the various kinds of structures that must be posited to account for what people know. It recognizes the vital role of particular conceptual structures such as propositions (Kay 1973), events (Frake 1977), etc. Linguistic interaction is a shared journey through a mental landscape (Sweetser 1992); this is especially true with the study of metaphor. In these pursuits, cognitive linguistics converges with other fields in a newly fashioned multidisciplinary effort called cognitive science, which takes the issue of the representation of knowledge as a central concern. Our study only shows a beginning effort in Chinese in delineating the role of culture in the organization of knowledge. A considerable amount of work needs to be done before we achieve a detailed understanding of the processes related to metaphors. Linguistic studies of metaphor no doubt open a new window to the mysterious world of mapping in thought and language.

Reference


Web: http://cogsci.ucd.edu


商務印書館 1997, 《詞源》。北京：商務印書館。
李運益 1992, 《漢語比喻辭典》。四川：四川辭書。
從語用看認知：以中文之譬喻為例

蘇 以 文

摘 要

隱喻乃反映人類思考及認知之重要語言機制。Lakoff 與 Johnson (1980) 提出語言中隱喻的使用主要反映了我們內在概念系統的運作，並視隱喻為基本認知架構的一部分。也就是說，我們思考及推理的本質可經由檢視語言中隱喻的用法而得知。以 Lakoff 與 Johnson 的觀點作解釋，隱喻的本質即是我們以本體（source）來解客體（target）的過程，而這樣的過程必須借助所謂的意像結構（image-schema）或是命題結構（proposition-schema）之映照（mapping）來完成。

基於這樣的認知，我們以不同來源之語料，針對中文「思想為食物」（THOUGHT AS FOOD）這個概念隱喻進行研究。中文以飲食為本體，以「思想」為客體的隱喻用法比比皆是，「思想」廣泛地涵括了抽象的思想或概念，以及具體的語言或文字。以「思想為食物」所建立的中文隱喻大多依著下列之命題結構：一、食物的成分猶如思想的內容；二、食物的味道猶如思想的品質；三、食物的準備猶如思想的成形；四、食物的消化猶如思想之理解。

這樣的映照關係同時也反映到語法上不同詞類的使用。第一類之映照藉名詞來完成，第二類靠形容詞，而後兩類得藉助於動詞。根據 Vendler (1967) 對動詞種類的分析，我們又可把第三類歸為完成動詞（accomplishment verbs），第四類則為達成動詞（achievement verbs）。

研究隱喻的映照模式可以反映出文化本質的改變。其實，「思想為食物」這樣的用法也廣見於不同的語言之中。不同語言使用不同的命題結構或意像結構來完成映照之語用情況，可用來作為研究不同文化模式之依據，進而反映出文化之間的差異性。

關鍵詞：隱喻、概念、命題結構、思想和語言、概念隱喻