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Chapter 1 Introduction

1.1 Metaphor about aphasia: the first example

"It's new and probably something they hadn't heard of. I didn't know what it was…I recall one nurse describing it as: 'Imagine you are in a foreign country and you are trying to tell someone about the refrigerator. You know it's a refrigerator. They know it's a refrigerator. However, the language barrier is keeping you from getting the story across.'" This is what an aphasia sufferer's wife said when she talked about her experience.[1] A nurse tried to explain to her what aphasia is and what it is like. The nurse set up a scene about a person's overseas experience to draw comparisons with experience and feelings of people with aphasia (PWA). The language barrier people face in a foreign country shares some similarities with the language difficulties that PWA are suffering from. If the speaker and the hearer use different languages, usually it is difficult for them to understand each other; and this resembles the plight that PWA face: their utterances are relatively unintelligible, or they have difficulty in understanding speech. Moreover, the language barrier in a foreign country is easier to understand for people who are not familiar with aphasia, like the family caregiver in this context. That is to say, the nurse described aphasia by comparing it to something else, which is more accessible for the recipient to understand.

When the nurse described aphasia, there is an example of metaphor use to help people know more about aphasia. In this thesis, the main objective to be explored is how metaphors are used in aphasia. In order to meet this objective, it is necessary to answer two questions: one is how metaphors are used by PWA; and the other is how people express their feelings on aphasia and form ideas on it by using metaphors. However, before discussing these two questions, we need to consider what metaphor is and what aphasia is. In this chapter, we will provide some background information on metaphor and aphasia in 1.2 and 1.3; 1.4 is an overview of metaphor use in aphasia; then, we will discuss research goals and the scope of this dissertation in 1.5; and lastly, there will be an outline of the whole dissertation.

1.2 Metaphor

1.2.1 Metaphor, from the perspective of traditional rhetoric

The word "metaphor" originates from Greek *metaphorá*, which means 'transference'. This term is taken from ancient rhetoric for a figure of speech (Bussmann, 1990/1996, p.744). As a figure of speech, in metaphor, a word or phrase literally denoting one kind of object or idea is used in place of another to suggest a likeness or analogy between them (Merriam-Webster, n.d.). In this tradition, metaphor use is a deviation from the normal (or literal) meaning to produce a rhetorical effect. For instance, in this line "shall I compare thee to a summer's day", the poet asked whether it was possible to make a comparison between the beloved one and a

[1] https://www.aphasia.org/stories/aphasia-threads-bob-lee-ann-and-samye/

summer's day. In the sonnet, qualities of a summer day were described in a detailed and vivid way to express how good and amiable the person was.

I. A. Richards (1936) made a distinction between two elements of a metaphor: the tenor and the vehicle. The tenor is the underlying idea or principal subject which the vehicle conveys. In that sonnet, "thee" is the tenor and "a summer's day" is the vehicle. The vehicle is metaphorically used to describe the tenor with attributes of "a summer's day".

In *The Poetics* and *The Rhetoric*, Aristotle examined metaphor use in poems. In his opinion, metaphor brings about learning and creates understanding and knowledge. One example is Homer who calls people's old age "the stubble", which conveys knowledge in a pleasant and easy way.[2] Cameron (1999) regarded this Aristotelian opinion as an essentially cognitive view on metaphor, as metaphor produces a new understanding on the tenor. However, the real cognitive turn of metaphor study did not come until the 20th century.

1.2.2 The conceptual metaphor theory, an overview

In 1980, the publication of *Metaphors We Live By* from Lakoff and Johnson marked a new epoch in metaphor study. The conceptual metaphor theory (CMT) first expounded in this book holds the view that metaphors are not a mode of language serving as "ornaments" in language, but they are matter of human thought. On the linguistic level, people use metaphorical expressions. On the conceptual level, metaphor use can reflect speakers' feelings and attitudes towards described entities; at the same time, people's perception of the world is influenced or even shaped by the use of metaphors. For example, in the metaphor at the beginning, the language barrier in a foreign country can evoke an image of embarrassment or frustration in communication, which may have an impact on how people understand and judge aphasia.

CMT did not come from nowhere. Mácha (2016) discussed similarities or affinities between CMT and previous classical theories of metaphor. For instance, Richards (1936, p. 94, as cited in Mácha, 2016) paid attention to metaphor in thought, as he said, "when we use a metaphor we have two thoughts of different things active together and supported by a single word, or phrase, whose meaning is a resultant of their interaction". In addition, before CMT, Reddy (1979, 1993) proposed a concept, the "conduit metaphor" based on his analysis of commonly used expressions on language, such as "Your real feelings are finally getting through to me.", that is, human language functions as a conduit that enable ideas and feelings to transfer between people. The conduit metaphor is the main category of figurative expressions when we talk about human communication or meta-language; and it is omnipresent and difficult to avoid when English speakers discuss human communication. Reddy is the pioneer who has pointed out that the core of metaphor study is thought, and metaphor is an indispensable part in everyday language to conceptualize the world (Lakoff, 1993). Similar ideas are also presented in the CMT, which considers metaphor use as a mode of thought, not only a rhetorical device.

In CMT, a conceptual metaphor is a connection between two semantic areas which are called "conceptual domains", and there is a metaphorical mapping

[2] http://people.wku.edu/jan.garrett/401s07/arismeta.htm

from a “source domain” to a “target domain” (Lakoff, 2014). Metaphors are ubiquitous in language, “and the metaphorical meanings are given by conceptual metaphorical mappings that ultimately arise from correlations in our embodied experience” (Lakoff & Johnson, 1980, p. 247). A frequently cited conceptual metaphor is ARGUMENT IS WAR. WAR is the source domain, and the notion of WAR is used to describe attributes of the target domain AGUMENT. For example, in the sentence “This was the opening shot in his argument.”, the basic meaning of the noun “shot” is “an act of firing a gun”, and the contextual meaning is “a remark that is intended to criticize someone”. The metaphorical use of “shot” reveals the feature of an argument: it can be a heated debate in which people “attack” each other like in a war.

In the rhetorical tradition, metaphors are viewed as a semantic phenomenon, and the relationship between the vehicle and the tenor is based on the same or similar semantic features (Bussmann, 1990/1996, p. 744). As a figure of speech, metaphor was valued for the rhetorical effect in literary language. In contrast, the CMT has situated metaphors on the cognitive or perceptual level, and extended the metaphor study to everyday language.

Kövecses (2016) has concluded six principal characteristics of CMT: metaphors are all pervasive; there are systematic mappings between two conceptual domains; the mapping is from concrete domain to abstract domain; metaphors occur primarily in thought; conceptual metaphors are grounded; the provenance of source domains is multifarious.

As for the pervasiveness of metaphor, in fact, this is not a brand-new label stuck on metaphor, as Nietzsche considered “all language is metaphor” (Oakes, 2008). The Cognitive Linguistic Group in University of California at Berkeley compiled two editions of the list of conceptual metaphors in 1989 and 1991.[3] The compiling is based on the observation of recurrent patterns in authentic language use, which correspond with certain metaphorical structure. It is a reservoir that enumerates numerous examples of how metaphors conceptualize people, entities, and ideas in a systematic way. The arrangement is from a more general metaphorical framework to more specific ones under the broader conceptual construction. There are also sentences as examples under the specific metaphorical frameworks. All data were collected from published books, papers, student papers, and research seminars. For instance, with THEORY as the target domain, conceptual metaphors include THEORIES ARE CONSTRUCTED OBJECTS, THEORIES ARE BEINGS WITH LIFE CYCLES, THEORIES ARE COVERS FOR THE FACTS, etc. (Lakoff et al., 1991). There are specific cases under these frameworks forming a hierarchical order, such as,

(1) THEORIES ARE CONSTRUCTED OBJECTS
—THEORIES ARE MACHINES
—e.g. The theory was successfully fixed.
—THEORIES ARE BUILDINGS
—e.g. They constructed this theory from the ground up.

[3] http://araw.mede.uic.edu/~alansz/metaphor/METAPHORLIST.pdf

(2) THEORIES ARE BEINGS WITH LIFE CYCLES
—THEORIES ARE PEOPLE
—e.g. This theory fathered many others.

However, it is not inferred that every single metaphor can be or should be categorized into certain conceptual metaphor. After decades of hard work, CMT researchers have found thousands of conceptual metaphors from all kinds of genres, such as academic writing, fictions, poems, mass media, conversations, etc. (Kövecses, 2016).

The conceptual metaphor's definition emphasizes "source domain", "target domain", and "mapping". The linguistic realization of the "source domain" and "target domain" equates with the "vehicle" and "tenor" in rhetoric. Langacker (1987, p. 488) defined "domain" as "a coherent area of conceptualization relative to which semantic units may be characterized". The definition given by Kövecses (2010, p. 324) is "our conceptual representation, or knowledge, of any coherent segment of experience". This conceptual representation can be also called "concept". A domain can be a basic conceptualization, like space, smell, colour, and other sensations; in other cases, it can be complex with many details, like two domains TREATING ILLNESS and FIGHTING A WAR in TREATING ILLNESS IS FIGHTING A WAR.

In metaphors, the concept A (the target) is understood by means of the concept B (the source). A set of systematic correspondences can be found between the source and the target in the sense that constituent conceptual elements of B correspond to constituent elements of A. These conceptual correspondences are often called "mappings" (Kövecses, 2010, p. 7). For instance,

(3) He was born in 2010.

There is a "time as container" metaphor in this sentence. The preposition "in" is used metaphorically, as the metaphorical mapping is from the SPACE domain to the TIME domain— "in" from showing something or someone inside a container or building to indicating something occurs during certain time. The basis of this metaphor is also human experience of objects and containers: events and actions occur in bounded time spans, which resembles objects in certain containers. Therefore, on the basis of the observation of recurrent patterns of metaphorical uses of spatial prepositions to refer to temporal dynamics, the conceptual metaphor TIME IS SPACE or TIME IS A CONTAINER can be derived.

In CMT, the locus of metaphor is not about its linguistic form or the ornamental effects in literature, "but in the way we conceptualize one mental domain in terms of another" (Lakoff, 1993, p. 203). In general, the metaphorical mapping is from a concrete concept to a more abstract one, that is, people are apt to conceptualize and reason unfamiliar and abstract concepts in terms of more familiar knowledge and more concrete ideas (Gibbs, 1994, 2006; Lakoff & Johnson, 1980, 1999). As for the example "in 2010", people use a preposition for space when they talk about time, and compared with the visible space, the concept of time is more abstract (invisible and intangible). Similarly, for the LOVE IS A JOURNEY

metaphor, compared with the concept JOURNEY, LOVE is so complex and abstract that it is difficult to pin down precisely, and it is impossible to imagine using the notion of LOVE in the source domain to make JOURNEY more intelligible and accessible.

The CMT put its emphasis on metaphor use in thought, which is manifested in three aspects (Kövecses, 2016). Firstly, a conceptual metaphor helps people to perceive and conceive an entity or concept in the target domain. For example, when we talk about what "life" is, various conceptual metaphors may be utilized: LIFE IS A JOURNEY, LIFE IS A WHEEL/CYCLE (*Saṃsāra* in Buddhism), and so on. Secondly, when we have some reasoning about the target domain, we use implications from the source domain. In the two examples about LIFE, the source domains are JOURNEY and CYCLE. These two source domains may bring different outlook on life. If life is a "cycle" or "wheel", people can be guided to think about how to live the current life and prepare for the next "cycle", and it is less possible to draw such an inference in the LIFE IS A JOURNEY metaphor. Thirdly, metaphor processing involves the activation of source and target domains.

In the metaphor LIFE IS A JOURNEY, the concepts in the source domain and the target domain share some similarities. For instance, the human life also has a start point and an end; we may face some obstacles in our lives; we may come across guides in our lives; major choices in life are crossroads, etc. For these metaphors, the metaphoricity is grounded in similarity, which can explain why the pairing (like LIFE and JOURNEY) is not unexpected. However, in some metaphors, such as LOVE IS A FIRE/WARMTH (e.g. "My love for her still smoulders."), it is quite hard to find a resemblance between LOVE and FIRE. Love is a highly subjective emotion, and warmth is the sensorimotor experience brought by the rise of temperature. The mechanism in these metaphors is about the correlation in experience between intensity and fire. If someone engages in high intensity activities, the body temperature rises and the body produces heat (Grady, 1997; Kövecses, 2016). There is a correspondence between the intensity of love and the intensity of flame, and maintaining intensity is maintaining heat. Metaphors like LOVE IS FIRE or AFFECTION IS WARMTH can be viewed to be grounded in the correlation between abstract mental activities and physical sensations.

The provenance of source domains is complicated and diverse. It has been thoroughly elucidated by Gibbs (2017). To put it simply, metaphors emerge from the interplay of the brain, bodies, and the whole world; and they are ultimately explained as the product of an entire context-sensitive dynamical system. In another word, metaphors come from the complex and ongoing interaction between human body, culture, and context.

1.2.3 Some important concepts in CMT

Apart from those that have been mentioned, there are also some important terms in CMT, such as "image schema", "frame", "mental space", and "scenario".

"Image schema" was introduced by Mark Johnson (1987), and it was defined as "a recurring, dynamic pattern of our perceptual interactions and motor programs that gives coherence and structure to our experience" (Johnson, 1987, p. xiv). Hampe (2005) has concluded four characteristics of image schemas:

a) They are embodied prelinguistic structures.

Image schemas are structures relating to spatiotemporal relationships, which are acquired from the early infancy through all sensorimodalities. They are prior to the linguistic structure.

b) They are highly schematic gestalts.

That is to say, people cannot read many details from an image schema. It is a skeletal description of sensory-motor experience. For instance, for the SOURCE-PATH-GOAL structure, we cannot get any information on where the source and goal are, and who/what is on the path, etc.

c) They exist as continuous and analogue patterns beneath conscious awareness, and they are independent of other concepts.

d) They are internally structured and highly flexible.

"Internally structured" means they are made up of very few related elements. The flexibility of image schemas means they are manifested in different transformations in various contexts. To illustrate this with an example, the bodily experience and interaction with the world give rise to cognitive structures, like the spatiotemporal metaphorical mapping in Example 3 "He was born in 2010" that is based on the "CONTAINER" schema. Additionally, many other metaphors can be explained by the same image schema, in other words, numerous forms of manifestation can be found, for instance,

(4) How can I get out of this dilemma?
(5) She withdrew into herself.

In Example 4, a dilemma or a difficult situation is a container; the human body is a container for the self in Example 5.

The theoretical construct "frame" has been introduced and discussed for decades (Fillmore, 1975, 1982; Goffmann, 1967; Minsky, 1975) in different fields such as sociology, artificial intelligence and semantics. In Fillmore's frame semantics, a frame is a schematization of detailed everyday experiences, which is a knowledge structure in our long-term memory (Evans & Green, 2006, pp. 166, 222).

In metaphor study, sometimes it is difficult to distinguish between domains and frames. Scholars have given different explanations on their relation (Sullivan, 2013; Kövecses, 2017). According to Kövecses (2017), frames are conceptual structures that are less schematic than domains, and they have more conceptually specific information than domains. For instance, in LIFE IS A JOURNEY, the source domain JOURNEY can be expatiated by frames like TRAVELLER, GUIDE, ROUTE, etc. As a concept, the JOURNEY domain is elaborated by particular aspects, like "My teacher has shown me the way." (GUIDE), "the path of cooperation" (ROUTE), etc.

"Mental space" is a term in cognitive linguistics proposed by Fauconnier (1994). Stored in the working memory, mental spaces are real-time/online cognitive

constructs created in the current context (Birdsell, 2017). Just as Fauconnier (2007) said, “mental spaces are very partial assemblies constructed as we think and talk for purposes of local understanding and action. They contain elements and are structured by frames and cognitive models”. So, mental spaces are structured from frames with more specific information from local discourse. Such conceptual specification is also called a “scenario”, which is a specific subdomain category (Musolff, 2006). A scenario is regarded as the knowledge about a specific setting, and it includes “entities/participants, roles and relationships, possible goals, actions and events, and evaluations, attitudes, emotions, and the like” (Semino et al., 2016).

Still, take the JOURNEY domain as an example. As we have discussed, the frame ROUTE/PATH is an elaboration on it, with some specific information, such as it is a way “from one place to another”. However, as the concept in a domain, the thought in a frame is also decontextualized conceptual information stored in people’s long-term memory. If we go to utterances produced by individuals in real communication, it is not uncommon that we find sentences like

(6) This deal is a landmark in our company’s international expansion.
(7) John has reached a crossroads in his career.
(8)

人生	并	不	都	是	康庄大道。
rénshēng	*bìng*	*bù*	*dōu*	*shì*	*kāngzhuāngdàdào*
life	actually	not	all	be	broad roads

Life is not always with a bright and good future.

In these examples, the scenario use involves “the conspicuous building along the path” and different types of “roads” in information-rich contexts. In everyday communication, the concepts in the PATH/ROUTE frame are embodied in various scenarios, like LANDMARK, CROSSROADS, BROAD ROAD (康庄大道 in Example 8), etc.; and these scenarios elaborate the frame. Typical and specific aspects of the source-situation emerge from these scenarios (Musolff, 2006).

Besides, what is notable is the term “metaphorical framing”. Framing is a way of influencing people; and for metaphorical framings, we use metaphorical expressions to lead (or even direct) others to see an entity or idea in one way, rather than other ways (Enfield, 2022, p. 113). Like the first example at the beginning of this chapter, that nurse employed the FOREIGN COUNTRY framing to make the family caregiver understand difficulties in aphasic communication in terms of the language barrier people may face in a foreign country. The concept of “framing” should not be confused with the level of “frame” in metaphor analysis. However, in practice, it is possible to analyse how metaphors are framed on different levels.

1.3 Aphasia and types of aphasia

1.3.1 Aphasia

As for aphasia, the National Institute on Deafness and Other Communication Disorders of U.S. gave a definition on it:[4]

[4] https://www.nidcd.nih.gov/health/aphasia

Aphasia is a disorder that results from damage to portions of the brain that are responsible for language. Aphasia usually occurs suddenly, often following a stroke or head injury, but it may also develop slowly, as the result of a brain tumour or a progressive neurological disease. The disorder impairs the expression and understanding of language as well as reading and writing.

Stroke is the biggest reason for adult aphasia. About 85% of PWA are stroke patients (Bastiaanse, 2010, as cited in Bos, 2015), and around 25-40% of stroke survivors suffer from aphasia.[5] According to the estimate of the National Aphasia Association in U.S., over two million Americans are affected by aphasia.[6] In China, although no figure can be found on how many people acquire aphasia, there were more than three million in-patients with stroke from the hospital quality monitoring system in 2018 (China Stroke Statistics 2019 Writing Committee, 2020). It is not difficult to infer that the size of PWA in China must be quite large.

Signs and symptoms of aphasia may vary from person to person, as the locations of brain lesions and levels of severity are different. Because of the diversity and complexity of aphasia, in the history of aphasia diagnosis and treatment, there emerged a tremendous number of ways and approaches to categorize various aphasic syndromes and classify different types of aphasia. However, many scholars have adopted simple dichotomies to classify aphasia to avoid the intricacy when multiple criteria or indexes are taken into consideration (Murdoch, 1990, p. 67). One frequently used dichotomy is to distinguish one kind of aphasia from another by the criterion of fluency (Benson, 1967), that is, whether PWA can produce fluent utterances or not.

1.3.2 Types of aphasia

In spite of numerous ways of categorization in aphasiology, we adopt the Boston classification. The key diagnostic distinction is the speech fluency, and aphasia can be divided into fluent and non-fluent. Wernicke's, conduction, anomic and transcortical sensory are fluent aphasia; non-fluent aphasia includes Broca's, transcortical motor and global. In each subtype, types of aphasia are grouped according to other factors like comprehension and repetition. Table 1 is taken from Brookshire (2015, p. 200) to show characteristics of every type:

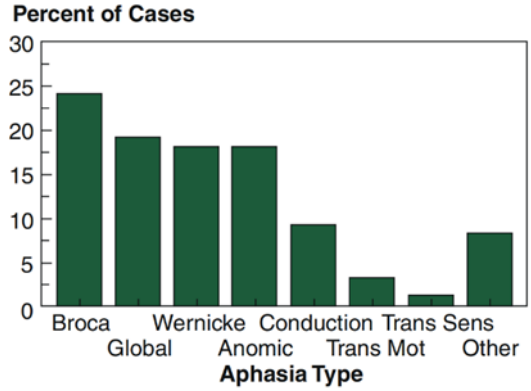
Table 1.1
Features of Aphasia Syndromes

[5] https://www.webmd.com/brain/aphasia-causes-symptoms-types-treatments#1
[6] https://www.aphasia.org/

Aphasia Syndrome	Lesion Location	Fluency	Speech	Word Retrieval	Repetition	Comprehension
Broca	Posterior inferior frontal lobe	Nonfluent, telegraphic	Phonetic dissolution	Fair, but misarticulated	Labored, misarticulated, telegraphic	Fair to good
Wernicke	Posterior superior temporal lobe	Fluent, empty	Verbal (semantic) paraphasia	Poor, with verbal paraphasias	Fluent, verbal paraphasias, grossly restricted retention span	Poor
Conduction	Parietal lobe	Fluent, sensical	Literal (phonemic) paraphasia	Fair, with literal paraphasias	Fluent, literal paraphasias, some restriction of retention span	Fair to good
Anomic	Temporal, parietal lobe	Fluent, sensical	Verbal (semantic) paraphasia	Fair, with verbal paraphasias	Good	Fair to good
Transcortical motor (anterior isolation syndrome)	Anterior, superior frontal lobe	Nonfluent, sparse	Variable	Variable, with delays in initiation	Good, but delays in initiation	Good
Transcortical sensory (posterior isolation syndrome)	Posterior, superior parietal lobe	Fluent, empty	Variable	Poor	Good	Poor
Global	Large, perisylvian	Nonfluent	Literal, verbal paraphasia, verbal stereotypies	Poor	Poor; literal, verbal paraphasias, grossly restricted retention span	Poor

Figure 1.1 illustrates percentages of each type of aphasia in a group of 444 aphasic adults seen in the Aphasia Research Center, Boston Veterans Administration Medical Center (Benson, 1979, as cited in Brookshire, 2015, pp. 200-201):

Figure 1.1
Proportions of PWA Exhibiting Various Aphasia Syndromes



It reveals that most cases with non-fluent aphasia are Broca's and global aphasia; in fluent aphasia, Wernicke's and anomic take a high proportion. Let's have a closer look at characteristics of two typical patterns: Broca's in the non-fluent aphasia group and Wernicke's in the fluent aphasia group.

Broca's aphasia

The classification 'Broca's aphasia' was named after the French physician and anatomist Paul Broca. He found the relation between the defect in speech production and the lesion in the left frontal lobe after the autopsies of his two patients. The most striking feature of people with Broca's aphasia is telegraphic speech. Here is an example when a person with Broca's aphasia tries to describe a drawing about a picnic (see Appendix for the picture) in the Western Aphasia Battery (WAB) (Dronkers & Baldo, 2009):

I see dog, boy, boy, sand, see book, people, boats, on boat...girl and man reading, man fishing...

Their utterances are labelled "telegraphic" and "agrammatic". One reason is that they are not fluent, with abnormal pauses and recurring of single words. Words are produced one by one, and polysyllabic words come out syllable by syllable, separated with singularly longer pauses compared with people with no language disorder. People with Broca's aphasia speak slowly with greater effort. Usually, the length of their utterances is limited to no more than four words. Moreover, content words (nouns, verbs, etc.) are more frequently used than function words

(conjunctions, prepositions, etc.). For English speakers, it has been observed that "and" is always used to connect strings of content words (Brookshire, 2015, p. 194).

Wernicke's aphasia

Wernicke's aphasia was named after the German psychiatrist and neuropathologist Carl Wernicke. The most noticeable characteristic is the impairment of spoken and written language comprehension. People with Wernicke's aphasia can speak fluently, with normal rate. When a person with Wernicke's aphasia was asked to describe the picnic picture, the person replied as follows (Dronkers & Baldo, 2009):

The/goll//dz/George. It isn't correct. He guess – he/hamilz/in the the one guy who/stamilz/in the – oh I can't say it. This girl who has her own rain. She can see this/goll/who has a ride. A picnic – he is/kain/a you see the mai tai.

Here is an example when a person with Wernicke's aphasia was asked to talk about his home (four rooms downstairs and three rooms upstairs) (Brookshire, 2015, p. 195):

Well, it's a meender place and it has two…two of them. For dreaming and pinding after supper. And up and down. Four of down and three of up…

They can speak, and may speak much. Some Wernicke's aphasia sufferers can extend their speech with circumlocution and many empty words. Function words are not omitted, like "after", "in" and "up". Nevertheless, their fluent speech often becomes incomprehensible, like neologisms "meender" and "pinding" in the example.

1.4 Metaphor use in aphasia

From the first example at the beginning of this chapter, we know that through metaphors people can explain how it feels if someone acquires aphasia. Similarly, PWA can also use metaphors to convey their feelings in aphasic contexts, such as "My sudden stroke left me battling aphasia. I'm lost, sad, I lost my 20 years company."[7] In this example, the sufferer compared experiencing aphasia to a battle. So, metaphor and analogy may still be helpful comparative devices for PWA to explain something unknown, even though aphasia is a language disorder. In fact, narration, poetry, and metaphorical pictures are often employed in aphasic rehabilitation by speech-language pathologists (SLPs) to better hear the voices of their clients, caregivers and medical staff (Broussard, 2016, pp. 71-76; Ganzfried & Greenfield, 2016; Pound, 2013; Shafi & Carozza, 2011). Moreover, it is not only medical staff who use metaphor in rehabilitation, but it is also PWA who make use of metaphors in treatment and recovery (Mills, 2004), as it is also indicated by the metaphor of "battling aphasia" above.

Researchers have also studied what metaphors are used by PWA, their family caregivers and medical practitioners when they describe their experiences

[7] https://identitytheftbook.org/meet-robert-a-fellow-author-who-wrote-to-motivate-stroke-survivors-during-their-recovery/

and feelings in PWA's hospitalization and rehabilitation (Barrow, 2008; Ferguson et al., 2010; Mitchell et al., 2011). For instance, through interviews with 11 PWA, Mitchell et al. (2011) found that in their narratives, metaphors specific to aphasia included APHASIA IS A THIEF/BARRIER/GIFT/ENLIGHTENMENT, etc.

In Othenin-Girard (2015), the author is a therapist and aphasia sufferer. In the personal narrative about living with aphasia, the author used a vivid metaphor to express the feeling of dissonance: "aphasia is an abyss". Additionally, when narrating aphasic experience, metaphorical expressions containing "mist", "fog", "mask", "veil", "wall", and "exile" are commonly employed to depict a detachment from self and from others (Pound, 2013, pp. 11, 133-136).

From the previous research on metaphor use in aphasia, it can be concluded that many studies attempted to collect metaphors relating to aphasia and aphasia experience by means of interviews and personal narratives. Their findings give inspiration to us for our studies on how metaphors are used in aphasia. In this dissertation, we will choose some commonly used metaphors in aphasia settings, and they will be analysed in specific contexts. In doing so, conceptual metaphors need to be scrutinized in the scope of scenarios or mental spaces, considering characteristics of scenarios. That is to say, the scenario analysis (Musolff, 2006, 2016) will be adopted to detect how metaphors are used by PWA, caregivers, and practitioners, which will be expatiated in Chapter 5.

As for another paradigm of metaphor study, in Dorst (2011), Herrmann (2013), Kaal (2012) and Krennmayr (2011), it has been verified that metaphors are not distributed uniformly in every word class, and this uneven distribution of metaphors is also affected by how different word classes are divided in certain texts. For instance, compared with other genres, conversations feature the conspicuous use of verbs; and accordingly, in conversations, over 30% of all metaphors are verbs (Kaal, 2012), which take up the largest proportion in metaphor related words.

Their studies have revealed the relationship between metaphor, word class, and genre/register. For people with different types of aphasia, the word class distribution in their utterances can differ from each other. For instance, as we have mentioned, people with Broca's aphasia produce fewer function words, and people with Wernicke's aphasia do not omit them. Furthermore, for content words, a phenomenon called "the noun-verb dissociation" has been discussed in aphasiology (Goodglass et al., 1966; Laiacona & Caramazza, 2004). Specifically, for people with non-fluent aphasia (like the Broca's aphasia), it is more difficult to produce verbs; the production of nouns is more impaired for people with fluent aphasia (like the Wernicke's aphasia).

For people with different types of aphasia, their use of metaphors may show different characteristics, because word classes may not be divided equally in their utterances. In this dissertation, we will investigate the metaphor use by PWA from this perspective. In addition, what is noticeable is that all studies about aphasia and word classes we have mentioned are research based on observations of English-speaking PWA's language production. It can be interesting to ascertain the interaction between metaphor distribution, aphasia types, and word classes in another language, such as Chinese, and to see whether it is different from the one in English.

1.5 Research goals and the scope of the dissertation

The overall objective of this dissertation is to explore metaphor use in aphasia. To achieve this, we can frame this research from two perspectives: one is about how well or badly PWA produce metaphors, namely, their performance in metaphor production; and the other one is how metaphors express speaker's feelings and shape people's views on aphasia, viz., how metaphors work.

For the first perspective, we will follow the approach in Steen et al. (2010). They (ibid.) have developed a step-by-step method to identify metaphors from corpus data; and then chi-square tests were carried out to see how metaphors are distributed in word classes and registers (or genre). Two elements, word class and register, were taken into consideration because it was found that the distribution of metaphors could be explained by word class distribution in registers. For certain register/genre, in certain word class, there is a tendency for a higher/lower frequency of metaphors. As for our studies, we will not compare the inter-register differences. However, in order to see PWA's performance in metaphor production, it is workable to have a look at the inter-group differences, for instance, participants with different types of aphasia and the non-aphasic group. For the second perspective, we will adopt the CMT (Lakoff & Johnson, 1980) to investigate how metaphors conceptualize aphasia; and in this step, there will be exhaustive and thorough analyses on metaphorical framings used by PWA, caregivers and clinicians. We need to tailor some subgoals in specific studies to attain the overall goal of the research:

Subgoal 1 To probe into how metaphor frequencies interact with word classes and groups of participants;

Subgoal 2 To explore how metaphors work to conceptualize aphasia in contexts.

For the first subgoal, it will be achieved through two contrastive studies on English and Chinese data, which are from databases of AphasiaBank. So Subgoal 1 can be resolved into two parts:

Subgoal 1a To probe into how metaphor frequencies interact with word classes and groups of participants in English data;

Subgoal 1b To probe into how metaphor frequencies interact with word classes and groups of participants in Chinese data.

1.6 The overall structure of the dissertation

In this research, we will explore how metaphors are used in aphasia. The second chapter provides practical ways to identify metaphors. In Chapter 2, the distinctions between different kinds of metaphors will be discussed; and there will be identification procedures for different kinds of metaphors. All of these are the theoretical and methodological basis for the empirical studies in next chapters.

The next three chapters are the main body of this dissertation, which consist of three topics on metaphor use in aphasia:

Chapter 3 is a quantitative study on metaphor use on how metaphors are distributed in word classes and different groups of people (PWA and the control

group). In order to get authentic linguistic materials, it is possible to select data from an online database AphasiaBank. In this study, we focus on the performance of English speaking PWA.

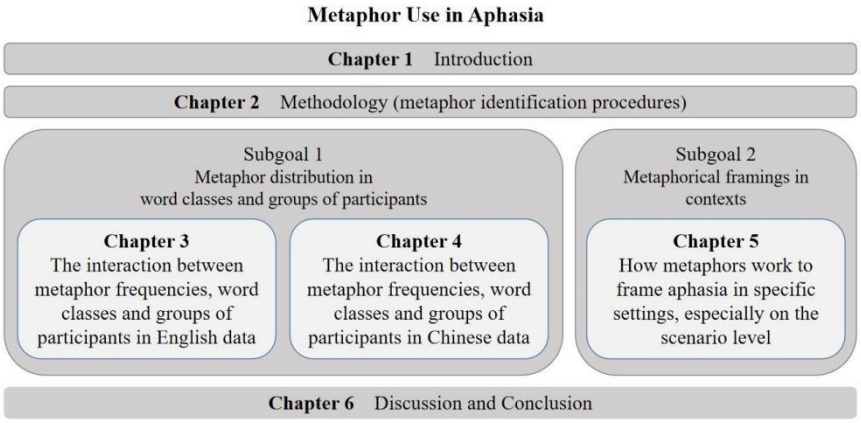
Chapter 4 investigates how metaphors are distributed in word classes and different groups of people (PWA and the control group). This study will follow the same approaches in Chapter 3, and we will also get data from AphasiaBank. However, in this study, we focus on the performance of Chinese speaking PWA. What is more, when it comes to Chinese, the features of this language need to be taken into account. If necessary, the method can be adjusted to the language.

In Chapter 5, there is a qualitative study on metaphor use in thought. For example, for PWA, caregivers and SLPs, this study will discuss how to convey their feelings and ideas on aphasia and aphasia rehabilitation by using metaphors.

The sixth chapter is the final part of the dissertation, and it is a conclusion of all studies: what the results tell us, implications of this research and suggestions for the future study. The following is an overview of the whole thesis:

Figure 1.2

Schematic Diagram of the Dissertation



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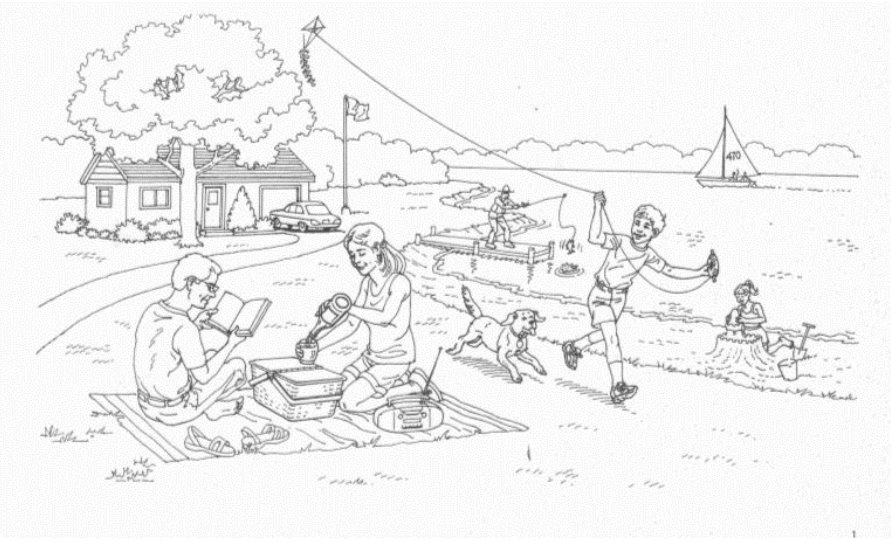
Appendix

Picnic, in Western Aphasia Battery (Kertesz, 2007)



Note. From Kertesz, A. (2007). *Western Aphasia Battery—Revised (WAB-R)*. Pearson.