

Iconicity in Chinese Sign Language and Filipino Sign Language

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Abstract

Sign language is primarily used as a means of communication by the deaf and hard of hearing. Iconicity is considered as its typical feature. This paper makes a preliminary comparison on lexical items between Chinese Sign Language (CSL) and Filipino Sign Language (FSL) through examining the iconic devices used by the CSL and FSL signs. The study provides some valuable evidence that the iconicity is prevalent in CSL and FSL which always use similar iconic device for the same concept due to shared embodied experience though different iconic devices are occasionally used. These iconic devices include direct (1) presentation; (2) number representation; (3) shape representation; (4) movement representation (5) size representation; (6) part-for-whole representation; (7) metonymic/metaphorical representation. The findings of the research could help to reveal the relationship between language and cognition and make some contributions to the communications among the deaf and hard of hearing in both Chian and the Philippines.

Keywords: Chinese Sign Language, Filipino Sign Language, iconicity, iconic devices

1. Introduction

Sign language is a means of communication primarily used by the deaf and hard of hearing. As a visual symbol system, sign language is mainly expressed through the form of manual articulation in combination with non-manual markers. Each country in general has its own native sign language, such as Filipino Sign Language (FSL), Chinese Sign Language (CSL), and American Sign Language (ASL). Not surprisingly, these sign languages are not universal, that is, they are mutually unintelligible even though they also have many similarities in articulation and non-manual markers.

Factually, sign language has long been ignored by linguists who have only considered sign language as a minor form of gestural communication to high extent similar to pantomime. It is not until William C. Stokoe and his associates who started the seminal work in 1960s that sign language had been established and analyzed as a natural language. The research on sign language over the past sixty-some years has shown that sign language, like spoken language, has an elaborated systems in terms of phonology, morphology, syntax, semantics, and pragmatics (Tai, 2005). According to Stokoe (1960) and other theorists, hand shape, hand location, palm orientation, movement and non-manual signals are the basic components of a sign language (Tai, 2005) even though one sign language varies from another in these aspects. For instance, CSL and FSL use different fingers to represent the number “three” although both of them use three fingers (the differences will be analyzed in the following section).

Since the status of sign language has been established, relevant studies have sprung up one after another. But most of the research is concerned with the similarity occurring in sign language and spoken language. This undoubtedly has minimized all the unique features that sign language has, such as simultaneity and iconicity (Capirci et. al. 2022). Moreover, the research is more about sign languages in various countries and regions, such as American Sign Language, French Sign Language, Finnish Sign Language, Taiwan Sign Language, Chinese Sign Language, and even International Sign Language (Frishberg, 1975; Cuxac, 2013; Puupponen, 2019; Tai, 2005; Chan & Wang, 2008; Whynot, 2016). But there are still few comparative studies between two sign languages. So the present research tries to make a comparison between Chinese Sign Language (CFL) and Filipino Sign Language (FSL) to benefit and promote the communication among the deaf and hard of hearing from two countries.

2. Icons and Iconicity

2.1 Concepts

According to Peirce (1894, 1903), there could be three categories of signs—icons, indices and symbols—in light of the connection between the sign and its object. An icon is a kind of sign which is used to represent an object through its qualities. That is, an icon shares these qualities with its object and there is resemblance between an icon and its object. The icons are further divided into the image, the diagram, and the metaphor.

Iconicity refers to the natural connection between language and human experience or concepts. It represents a relationship between language symbols and the external world surrounding us. But it is not an objective relationship existing between an icon and a referent, but instead a relationship connecting our mental models of the icon and referent. According to Taub (2001), the motivations behind these models are partially from our embodied experiences common to all humans and partially from our experience in interactions with specific cultures and communities. He also believed that iconicity is common to all human languages, no matter whether it is a signed language or a spoken language. More importantly, iconicity could invariably occur at each level of linguistic structure. Put it in another word, the iconicity can occur in either morphology, syntax or individual words (Taub, 2001). Taub (2001) has further elaborated that iconicity is dependent on human's ability of associating sensory images with concepts and iconizing these images to identify resemblance between them by means of exploiting the language, all the while the original images' basic structure of the original icons is in completeness. Following this line of argumentation, therefore, the research is to examine the similarities and differences in the way in which the iconic devices are used by CSL and FSL lexicon.

2.2 Iconicity and Sign Language

As the main way for deaf and hard of hearing to communicate, sign language plays an important role in their knowledge acquisition, cognitive development and social development. With the rise of cognitive linguistics in the past 30 years, the study of sign language linguistics has drawn much from it and achieved further development (Li & Wu, 2014). As a visual language, sign language has more iconicity potential than oral expression. Therefore, iconicity is considered to be the most significant feature of sign language (Thompson et al., 2020). Mandel (1997) used to believe that iconicity is the motivation of sign language vocabulary and grammar, which can be divided into two categories: declarative and descriptive. The former means that sign language users use gestures to refer to the object itself, while the latter uses sign language to simulate the shape of the object, which is a virtual description technique.

Iconicity is a phenomenon of mapping where there is similarity and correspondence between language form and content (Wang, 2000). It is mainly reflected in the static sign language system and the dynamic use process. It is the expression of experience and perception at the cognitive level. Iconicity is an important field of linguistic research. The study of iconicity is conducive to promoting people's attention from verbal language to sign language and understanding the relationship between language and cognition and the brain mechanism of language processing (Cao & Li, 2021).

One of the ways to integrate iconicity with sign language linguistics is to enhance the study of sign language. At present, the interest in the study of sign language is mainly manifested in the large amount of attention paid to "signing" (also known as the gesture mode of sign language) (Zhang & Wang, 2021; Shen Yuan 2022). For example, Grote & Linz (2003) has concluded by analyzing the impact of sign language iconicity on semantic conceptualization that only part of the attributes of a sign it refers to can be represented by iconicity, that is, the iconicity between the sign and its meaning is neither complete nor objective, and the understanding of this iconicity is filtered by the perceiver's understanding.

Some studies have also been done on the similarities and differences of sign language iconicity in different countries based on their cultural backgrounds. It has been found that any country using sign language to communicate is inseparable from iconicity words, and there is a certain degree of consistency in the understanding of iconic devices and meaning (Kan & Wang, 2014; Gao & Gu, 2013; Thompson, 2020). For example, Kan and Wang (2014) found that Chinese and American sign languages have the same iconicity devices, including direct expression, number expression, hand shape expression, action expression, size expression, metonymy and metaphor expression. According to their study, sign language can express the target meaning through similar shapes in terms of iconicity and the visual similarity of iconicity in different countries is affected by the existing objective reality. For example, the expression of "bird" in Chinese sign language is very similar to that in American sign language. In Chinese sign language, the hand is placed in front of the mouth to imitate the shape of the bird's mouth, and then the hands imitate the wings of the bird to make a flying shape. The expression of American sign language is similar to it, imitating the mouth shape of "bird".

Undoubtedly, there are some differences in the iconicity of sign language in different countries. For example, the iconicity differences in different parts of speech will be different. Relevant studies have conducted rating analysis by comparing 220 meanings of American sign language, British sign language, English and Spanish, and compared how iconicity between sign language and spoken language spreads in sign language vocabulary and spoken vocabulary (Perlman, 2018). It is found that verbs are more saliently marked in American sign language, signs and English, but not in Spanish; the iconicity of gestures is particularly prominent in American Sign Language and British sign language; adjectives in English and Spanish show stronger iconicity; the iconicity of color words in American Sign Language and British sign language is low. Therefore, iconicity can be used as a model to explain the differences between the languages of different countries, so as to understand the influence of the local culture and the mainstream language of different countries on sign language.

3. Comparisons between FSL and CSL

Based on the sets of iconic devices developed by Taub (2001) and Tai (2005), who respectively take ASL and TSL as the language base, Chan and Wang (2008) proposed that there were seven iconic devices which are used by CSL lexicon. These devices are: (1) direct presentation; (2) number representation; (3) shape representation; (4) movement representation (5) size representation; (6) part-for-whole representation; (7) metonymic/metaphorical representation. Following the above identified set of iconic devices, the following subsections are devoted to make comparisons on the use of these iconic devices in both CSL and FSL.

3.1 Direct Presentation

Direct representation involves naming an object through pointing to it. In this iconic device, the referents are the physical identities themselves. The most obvious examples are in the words of body parts. All (at least majority of) sign languages in the world denote body parts by means of pointing to them. CSL and FSL are no exception and they use the same iconic device. For example, the sign MOUTH in both the Philippines and China are iconized by the index finger pointing to the mouth and simultaneously it turns around the mouth, which involves shape representation to trace out the outline of the mouth. The sign EAR is another example. As shown in the figures 1 and 2, both signers articulate the words EAR by pointing to ear(s) using index finger(s). There is only one difference between the signs: CSL uses one index finger of dominant hand to point to one ear (Figure 1) while FSL uses two index fingers of two hands to point to two ears (Figure 2).



Figure 1. CSL EAR

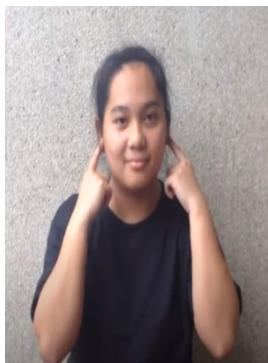


Figure 2. FSL EAR

3.2 Number Representation

Number representation is defined as a means to use the number of fingers to directly indicate the number of referents. This is also described as “number-for-number iconicity” (Taub, 2001). The digital numbers from one to five are represented directly by the numbers of fingers in CSL and FSL. In both CSL and FSL, the ring finger of dominant hand is the icon for the number one and the ring finger and middle finger are used to form the sign TWO. However, there is one difference in the CSL and FSL signs THREE. In the case of CSL, the digital number THREE is traditionally represented by the little finger, the ring finger and the middle finger (Figure 3). However, it is the index finger, the middle finger, and the ring finger which are used in FSL to express the meaning of digital number THREE (Figure 4). The latter way to represent THREE is also used in Taiwan Sign Language (TSL) (Tai, 2005).

3.3 Shape Representation

Shape representation is the means used by the signer in depicting particular shape images of the referents through utilizing certain hand shapes and hand forearms. This may be illustrated by the CSL and FSL signs BIRD (Figure 5 & 6). Both of them use the same iconic images and iconic devices. As shown in Figure 5, the CSL sign BIRD is a compound sign. In signing, the right hand is firstly used to iconize the shape of a bird’s beak (Figure 5a), and then both hands and forearms are used to stand for the shape of a bird’s wings, and simultaneously moves the hands up and down to depict the bird’s flying movement (Figure 5b), which involves movement representation. The same iconicity occurs in the case of Filipino sign BIRD (Figure 6).



Figure 3. CSL THREE



Figure 4. FSL THREE

3.4 Movement Representation

Tai (2005) describes movement representation as a means to depict the referent’s movements through utilizing movement of the hands, forearms and fingers. This iconic device represents iconicity of movement. As noted by Taub (2001), movement iconicity often co-occurs with iconicity of shape-for-shape. The reason for this lies in that “when the articulators themselves are in configuration to depict a referent’s shape, the signer can move it around to stand for the referent’s movement” (Taub, 2001). This has already been illustrated in the second component of signs BIRD in CSL and FSL (Figure 5 & 6).



Figure 5a. CSL BEAK



Figure 5b. CSL FLY

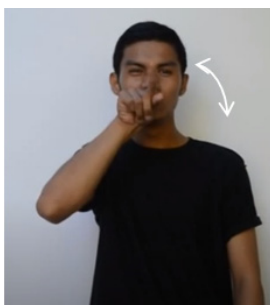


Figure 6a. FSL BEAK



Figure 6b. FSL FLY

3.5 Size Representation

Size representation refers to the signer using the size of articulation to represent the size of the referent (Tai, 2005). It is a case of “size-for-size iconicity” (Taub, 2001). A pair of signs LONG and SHORT in CSL is utilized here to demonstrate this form of iconicity (Figure 7 & 8). In the case of sign LONG (Figure 7), the signer stretches out the index fingers of both hands with them staying close, then the two fingers are moved away along the horizontal axis to the opposite direction to increase the distance between the two fingers, hereby expressing the concept of “long”. On the contrary, in the case of sign SHORT (Figure 8), the signer moves his two index fingers towards each other to visually make short the distance from one hand to another hand. A

corresponding pair of signs for LONG and SHORT in FSL are given here for comparison (Figures 9 & 10). The same iconic device is exploited in the signing of LONG and SHORT. In the case of FSL sign LONG, the signer slowly moves her left hand with a shape of alphabet L in FSL along the arm of dominant hand from front to back, thereby visually lengthening the distance. In this case, the length of arm demonstrates the quality of being long. While in the case of FSL sign SHORT, the signer moves her index finger and middle finger toward each other to shorten the distance to describe something as being short, which is different to the case of CSL sign SHORT where only the index finger is used. As one can see, in both pairs of CSL and FSL signs LONG and SHORT, the visual lengthening of distance is exploited to represent something long, and visually shortening that distance is used to depict something short although the iconicity is motivated from different images.

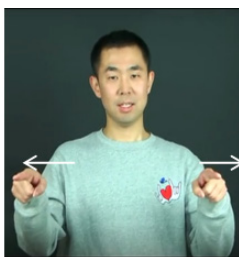


Figure 7. CSL LONG



Figure 8. CSL SHORT



Figure 9. CSL LONG

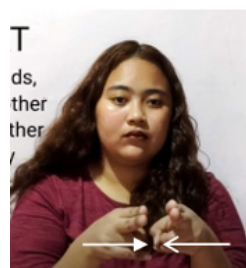


Figure 10. FSL SHORT

3.6 Part-for-Whole Representation

The part-for-whole representation involves the signer representing the referent by using characteristic part of the referent. The CSL and FSL signs CAT (Figures 11 & 12) can illustrate this iconic device. In both signs, the cat's head is iconized and the focus is on the cat's typical feature that it traditionally has long whisker. In the case of CSL CAT, the signer first uses the middle finger, the ring finger and the little finger of both hands to represent the cat's whiskers and places them on her cheeks which are the icons of cat's face, then moves the hands outward across the cheeks, representing the trace of the cat's whiskers. The palms of the hand should face the signer. In the case of FSL sign CAT, all the fingers of both hands are separate from each other with the thumb and index fingers being placed on the cheeks to represent the cat's whiskers, and then the thumb and index fingers are moved outwards across the cheeks while the thumb and index fingers are moving towards each other until the tip of the index finger in each hand touches the tip of the thumb finger.

3.7 Metonymic/Metaphorical Representation

Tai (2005) points out that in spoken language, "abstract concepts can be expressed through metaphor and metonymy." While metonymy involves expressing abstract concepts through association, while metaphor involves expressing abstract ideas by means of metaphorical mapping. One transparent example of metonymy is the sign LOVE. In both CSL and FSL, the signer typically crosses the arms over the chest in an X shape, with closed fists to indicate "love". That is, the crossing of arms resembles the event where two people are hugging each other, representing the affection or love.

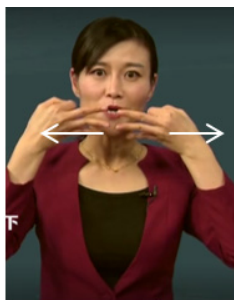


Figure 11. CSL CAT

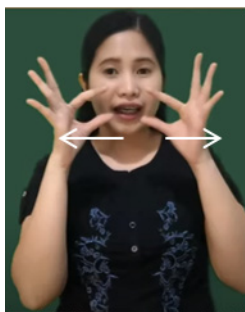


Figure 12. FSL CAT

The example for metaphor is the sign MARRY. In the case of CSL, the signer extends the thumbs of both hands with their tips facing each other, and bend the thumbs twice (Figure 13). The CSL sign uses thumbs to represent the couple and the fists are close to each other to represent the concept "marry" to symbolize the joining of two individuals in marriage and in the future life they rely on each other. Be reminded that "bending twice" stands for the bride and groom bowing to each other during the wedding ceremony. That is, the CSL sign MARRY also involves metonymy besides metaphor. The case is different for FSL sign MARRY where the signer brings the two hands together with palms facing each other and the dominant hand above another hand (Figure 14). That is, the FSL sign MARRY only involves metaphor to denote two individuals who join together in terms of two hands brought together.



Figure 13. CSL MARRY



Figure 14. FSL MARRY

4. Conclusion

The research exemplifies how CSL and FSL use the iconic devices similarly and differently. It is found that CSL and FSL are similar in the use of iconic devices in most cases of signing, as in CSL and FSL signs EAR, but in some cases where different images are used to represent the object or activity, as in CSL and FSL sign CAT. Moreover, there may be only one iconic device used by a sign, as in CSL and FSL sign THREE, or it may utilize two (or more) iconic devices, as in CSL and FSL BIRD. This finding may demonstrate that the lexical similarities between unrelated signed languages may be attributed to the role played by iconicity. However, we have to admit that this is by no means an exhaustive list of iconic devices used by either CSL or FSL and the future work is needed to investigate more iconic devices. Moreover, the present study only makes a comparison between CSL and FSL on a very limited number of lexical items and the future research on large set of lexicons is needed to provide more reliable data. To whatever extent, the research can be another valuable work on the comparison between two sign languages in terms of iconicity and help reveal the relationship between language and cognition. Moreover, it can also make some contributions to the communications among the deaf and hard of hearing in both China and the Philippines.

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