

# **Analyzing Cognitive Aspects of Different Cultural Groups : Building Bridges between American Sign Language Users and Japanese Sign Language Users, between Deaf People and Hearing People**

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## **Abstract**

This paper aims to analyze cognitive aspects of different cultural groups through sign language analysis, employing a cross-cultural point of view. It focuses on some “signs,” one of the components of sign language, from which it provides its readers with opportunities to reflect on the characteristics of sign language and cognitive schemata shared by different cultural groups that created (and have used) the signs. This paper is intended to illustrate how people in different cultural groups perceive and interpret the reality differently, limiting its attention to American culture and Japanese culture, and focusing on the following two languages, namely, ASL (American Sign Language) and JSL (Japanese Sign Language). Two theoretical frameworks, sociology of knowledge and constructivism, are referred to at the beginning of the current research. The whole study is intended to benefit researchers, scientists, scholars, instructors, teachers, sign language users, and anyone who can play an important role in creating psychological bridges between dissimilar cultural groups.

## **Introduction**

A language is like a filter through which we see the world. The filter, which is composed of a numerous numbers of small scales of sub-filters, through which we perceive and interpret the reality, is not tangible but intangible (and psychological). It seems clear that we use the psychological filter in our everyday life, and different cultural groups use different filters, perceiving the reality differently, sometimes quite differently. Nevertheless, when we aim to describe the differences regarding the psychological filters in a tangible manner, we are perplexed, since we have few tools to accomplish the task.

However, signs, one of the components of sign language, a system of communication with which we can communicate with others without using sounds, help us to describe the way people in different cultures observe the reality differently. Actually, most of the signs used in one sign language are manifestations of the way people of a particular culture perceive the world. This paper is going to analyze how people in different cultural groups perceive and interpret the reality differently, limiting its attention to the following two languages, ASL (American Sign Language) and JSL (Japanese Sign Language). More specifically, this paper is intended to analyze cognitive aspects of different cultural groups through analyses of particular signs, from which it provides its readers with opportunities to reflect on the characteristics of sign language and its users, which will lead to create psychological bridges between deaf people and hearing people.

### Review of the Related Studies

An American linguist William Stokoe (1960, 1976, 1980, 2001) was a legendary figure who played a major role in the field of sign language studies. Fifty years have passed since he published *Sign Language Structure*, a milestone work of the field, in 1960. The masterpiece became the driving force of sign language studies and deaf education, attracting a number of researchers, scholars, and scientists of various fields including Spulla & Newport (1978), Bellugi (1980), Kyle & Woll (1983), Liddel & Johnson (1986), Sacks (1990), Cokely (1992), Marschark & Everhart (1997), Mindes (1999), Keating & Mirus (2004), Hoza (2007), Henderson-Summet & Weaver (2008), and Rosen (2008).

Sign language has gained public attention, especially in the United States. ASL (American Sign Language) is “the third most commonly used primary language in the United States” (Barnett, 2002, p. 376), in fact. Fifteen years ago, Hayes & Dilka (1995) pointed out, “Recent legislation has opened the door for the instruction of American Sign Language (ASL) in public schools and/or at the college/university level for foreign or second language credit” (p. 119). Since then, so far, 40 states in the United States have passed the language legislation.

Stimulated by advanced American researchers, Japanese researchers, scholars, and scientists including Kanda (1984, 1990, 1998, 1999), Kitamura (1997a, 1997b, 1997c, 1998a, 1998b, 2009), Ichida (1998), Imai (1998), Saito (1998), Torigoe (1998), and Mori (1998a, 1998b) have made contributions to the field of sign language studies.

A great deal of effort has been made on sign language studies from linguistic perspectives (i. e., the structure of sign language, syntax, language acquisition, deaf education, bilingual education). However, little attention has been paid to sign language studies from a cross-cultural perspective, and a cognitive point of view. This paper, therefore, is going to explore the subject from a slightly

different angle, namely, a cross-cultural perspective and a cognitive viewpoint, limiting its attention to ASL and JSL.

## Discussion

### *Language and Reality: Cognitive Aspects*

A language is like a filter through which we interpret the world. We constantly pay attention to the environment around us (consciously or unconsciously), perceiving, recognizing, and interpreting the reality. Every bit of experience is recognized through the filter, and stored in the memory bank in the brain. When we describe what we experienced in the past (a particular event, an incident, a person, an object, feelings, emotions, etc.), we use so-called sub-filters (words of a language or languages) we activated in the process of processing information, through which we “create reality,” making our own reality, pulling the reality to the world we have perceived through a particular filter, or filters. In the process of perceiving and describing the reality, the filter can be social, historical, and cultural.

Sociology of knowledge, the study of the correlation between human thought and the social context within which it arises, and the study of the effects of particular ideas shared by a particular group on societies, gives us a key to understand this point more clearly. Wright (1984) defines sociology of knowledge as follows:

The sociology of knowledge may be broadly defined as that branch of sociology which studies the relation between thought and society. Its general usefulness derives from its attempt to deal explicitly with the substantive and/or methodological implications of the idea that knowledge is a function of culture and social structure. (p. 33)

According to the theory of sociology of knowledge, “reality is socially constructed” (Burger & Luckmann, 1966, p. 13) by individuals who recognize and describe the reality. Human experiences are stored through a psychological filter called a language system, thereafter authorized or/and institutionalized, and succeeded to the next generation. They remark on this point as follows:

Only a small part of the totality of human experiences is retained in consciousness. The experiences that are so retained become sedimented, that is, they congeal in recollection as recognizable and memorable entities. ... Intersubjective sedimentation also takes place when several individuals share a common biography, experiences of which become

incorporated in a common stock of knowledge. Intersubjective sedimentation can be called truly social when it has been objectivated in a sign system of one kind or another, ... of course, the decisive sign system is linguistic. Language objectivates the shared experiences and makes them available to all within the linguistic community, thus becoming both the basis and the instrument of the collective stock of knowledge. (pp. 85-86)

Viewed in this light, a language is like strata in which we can observe different kinds of layers. It is a social, historical, and cultural product composed of accumulation of human experiences. It seems reasonable to say that examining a specific language shared by a specific cultural group will enable us to disclose various kinds of cognitive aspects shared by the people in the culture.

Constructivism, one of the communication theories originally designed and structured by Applegate & Sypher (1988), also offers a key to understand the characteristics of human perception and cognition, and the way people interpret the reality. Applegate & Sypher (1988) remark on the concept of constructivism as follows: "we argue that our theories should be interpretive in nature. They should embody a philosophical anthropology that treats people as active interpreters of their social environment. ... if we are to assume that people are active interpreters, then we must focus upon their interpretations" (p. 42). Viewed in this light, it seems fair to say that every individual is an active interpreter of the reality, constantly processing countless bits of information as a social living creature, contributing to create the reality that is social, historical, and cultural.

On these grounds, the following three assumptions can be elicited, (1) as an active interpreter of the reality, an individual perceives the environment through interpretations, thereafter, he or she accumulates all sorts of experiences into a specific system shared by a particular group of people, namely, language; (2) a language is a system composed of perceived human experiences and interpretations of the reality accumulated through generations; (3) an examination of a specific language used in a specific culture will allow us to discover the characteristics of cognitive styles commonly used by the people in the culture.

The best material to deal with the assumptions here is, sign language, because it is nothing but a visualized and objectified form of a collection of interpretations of the reality (a collection of snapshots of the reality, so to speak) conducted by human beings. In the following parts, we would like to analyze some signs used in ASL and JSL, through which we describe the differences of cognitive styles shared by the two cultural groups (herein, "the two cultural groups" refer to "American Sign Language users and Japanese Sign Language users," and "people in American culture and counterparts in Japanese culture.").

### Different Expressions in ASL and JSL

*Greeting: Different expressions indicating the same behavior.*

Let us start our inquiry with an example of different expressions on the same behavior in ASL and JSL, that is, greeting. See Figures 1 and 2. Figure 1, composed of two body movements, shows an ASL sign for GREETING, while Figure 2 shows a JSL sign for the same behavior.

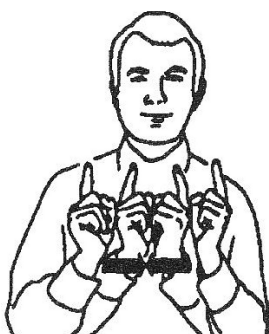


Figure 1  
ASL sign GREETING<sup>1</sup>

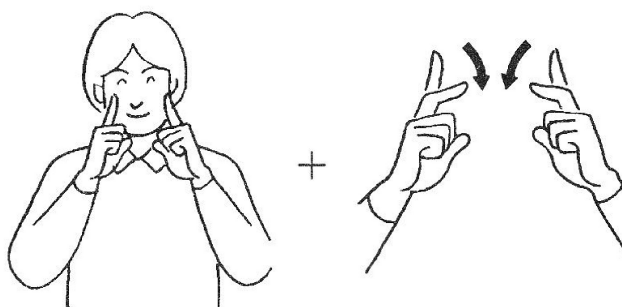


Figure 2  
JSL sign GREETING<sup>2</sup>

A close look at the two signs will make us realize that the two signs are slightly different in their formulations. The person in Figure 1 is making the sign beginning with the extended index fingers (which represent two individuals facing each other) of both hands pointing up in front of each shoulder, palms facing each other, bringing the hands together in front of the chest. The person in Figure 2 employs the same body movement and an additional finger movement, that is, curving the index fingers. The finger movements indicate two individuals facing each other, bowing by bending the upper part of their bodies.

Let us analyze the cognitive aspects manifested in the two expressions. The English term *greet* is originally from the German word *grazen*, which means “to address.” When we address something, we address a remark or say something to somebody. It is the act of saying casual remarks to each other. On the other hand, the Japanese term for the word *greet*, translated as *aisatsu*, is originally from Zen Buddhism. The original meaning of term is “getting much closer, breaking barriers, stepping into the existence of each other.” It is the act of breaking the boundary (psychological and intangible) that exists between two individuals.

Here, an interpretation can be drawn. In American culture, every person is regarded as an individual with unique identity and personality. When two individuals meet and greet, each person pays respect to the other’s individuality and keeps a certain level of psychological distance. On the other hand, in Japanese culture, every person is not regarded as an individual but as a member of a

group. When two individuals meet and greet, each person tries to close a psychological gap in order to form a sense of group. It is fair to say that Hofstede (1991) was right when he classified American culture into the category of individualistic cultures where individuality is the key to everything, and Japanese culture into the category of collectivistic cultures where individuality does not grow (where group identity is the key to everything). It is clear that the psychological and cognitive incompatibility between the two cultural groups is manifested in the two different sign language expressions displayed above.

*Apologize: Different expressions indicating the same behavior.*

Let us now turn to the next example. See Figures 3 and 4.



Figure 3  
ASL sign APOLOGIZE<sup>3</sup>

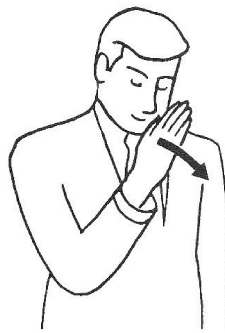


Figure 4  
JSL sign APOLOGIZE<sup>4</sup>

When you express apology in ASL, as delineated in Figure 3, you rub the palm side of your right hand in a large circle on the chest with a repeated movement. On the contrary, the same expression in JSL is done as displayed in Figure 4, you put your right open hand (palm facing left, fingers pointing up) in front of your face and bow.

Let us examine the ASL sign first. English term apology is originally from a Greek word *apologia* (*apo* + *logia*) which means “a speech in defense.” According to a dictionary, when you apologize to someone, you say that you are sorry that you have hurt them or caused trouble for them. However, the true intention of the person who apologizes is as follows. In American culture, when a person says “I’m sorry,” the person is feeling sorry for what happened to someone or something, but the person who utters the phrase does not think he or she is totally guilty and should stop fighting and surrender, that is, he or she seeks something to defend himself or herself (reasons, strategies, excuses, etc.). It is clear that the proposition presented here is widely accepted and appreciated in American culture, considering that oral presentation skills and debate

skills are highly appreciated. The philosophy is clearly manifested in the ASL sign APOLOGIZE, in which a person tries to defend himself or herself, by making an invisible shield in front of his or her chest.

Now shift our attention to the JSL sign APOLOGIZE. The person in the figure is bowing. Bowing is an important non-verbal code used by the Japanese to pay respect, to show politeness, and to express apology. The custom dates back to the *Muromachi* period (A. D. 1335-1573). The original message encoded in the gesture was “I’m sorry. I’m totally guilty. Please cut off my head if you like. Now I bend forward so that you can carry it out.” It was the extreme act of expressing apology. Thereafter, in the *Edo* period (A. D. 1603-1867), bowing spread across the country as a casual remark of expressing apology.

Nowadays, people in Japanese culture use the nonverbal behavior as a communication strategy. The Japanese do not seek something (i. e. reasons, strategies, excuses, etc.) to defend when they apologize. Instead, they seek strategies to avoid arguments or conflicts. They just bow, and bowing makes the other person bow too, which helps people to avoid conflicts or arguments. It is clear that the proposition presented here is widely accepted and appreciated in Japanese culture, considering that oral presentation skills and debate skills are not highly appreciated. The philosophy is clearly manifested in the JSL sign APOLOGIZE, where a person bows with no intention to defend himself or herself.

*Contract: Different expressions indicating the same conduct.*

Let us now turn to the last example. See Figures 5 and 6.

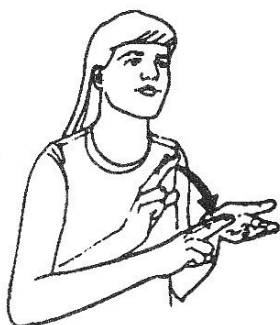


Figure 5  
ASL sign CONTRACT<sup>5</sup>

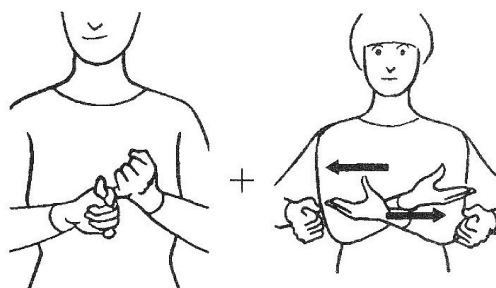


Figure 6  
JSL sign CONTRACT<sup>6</sup>

Focus on the ASL sign first. In making the sign displayed in Figure 5, you make the right H hand (which is used to make the sign for NAME) in front of your chest, and pat the extended fingers of the right hand, palm facing down, with a double movement on the left open hand held across the

chest. In ASL, the sign CONTRCT is used for the signs SIGNATURE and WRITE. The person in Figure 5 is demonstrating a body movement when we write something, by using her right hand. And her left hand imitates a sheet of paper. What the sign implies is as follows. A contract is a legal agreement between two companies or between an employer and an employee, and it must be documented with terms and conditions. It is fair to say that the interpretation presented here will be supported considering that almost all the business transactions in the United States entail written form of agreements. The ASL sign has grown from the American way of business transactions described above. The expression of the sign clearly manifests the business custom in the culture.

On the contrary, in Japan, it is not uncommon for business people to conclude contracts without exchanging documents containing terms and conditions. Moreover, it is not uncommon to seal a business deal with no documents. The governing idea of Japanese business culture is that, a contract should be made based on confidence and trust between the persons involved. Demanding documents containing terms and conditions (especially including penal regulations) to the other party can be regarded as a sign of lack of confidence and trust.

The philosophy of Japanese business customs is clearly manifested in the JSL sign CONTRACT shown in Figure 6. The sign is composed of two body movements. First, you hook two little fingers in front of your belly, as shown on the right side of the picture. In Japan, this sign stands for “making a promise and swear confidence,” or “making a pledge.” Then you move on to another sign, as displayed in the right side of the two pictures in Figure 6. You begin with making two fists in front of each side of the body, palm facing up, then move and cross the fists in front of your belly, hands opening. This sign stands for “each other.” The whole idea of this sign is that, a contract should be made based on confidence and trust between the persons involved. The sign mirrors the key concept of Japanese business customs.

## Conclusion

This paper has examined some signed expressions of American Sign Language and Japanese Sign Language from a cross-cultural perspective, through which it has attempted to describe different cognitive styles shared by the people in American culture and counterparts in Japanese culture. Three points have become clear from our discussion. First, the analyses in this paper made it clear that a sign language is nothing but a visualized and objectified form of collection of interpretations for the reality conducted by human beings. Unlike spoken language studies, sign language studies offer a key to understand the way people perceive the world in a visualized form. Secondly, it is



reasonable to say that a signed expression of a particular sign language mirrors the way people of the culture perceive the reality, and a specific and unique cognitive style shared by the members of the culture. A sign language is a human-made product that is cultural, historical, and practical. Finally, it is fair to conclude that a sign language is an unusual tool with which we can delve into the layers of human experiences accumulated through the cognitive filters of human beings, and objectify the complicated cognitive patterns in a simple way. We can now conclude that there is a tremendous value of being familiar with sign language.

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#### Notes

1. From *Random House American Sign Language dictionary*, (p. 526), Costello, E. 1994, New York, Random House. Copyright 1994 by Random House. Adopted with permission.
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#### References

- Applegate, J. L., & Sypher, H. E. (1988). A constructivist theory of communication and culture. In W. B. Gudykunst & Y. Y. Kim (Eds.), *Theories in intercultural communication* (pp. 41-65). Newbury Park, CA: Sage.
- Barnett, S. (2002). Cross-cultural communication with patients who use American Sign Language. *Family Medicine*, 34 (5), 376-382.
- Bellugi, U. (1980). Clues from the similarities between signed and spoken language. In U. Bellugi and M. S. Kennedy (Eds.), *Signed and spoken language: Biological constraints on linguistic form* (pp. 115-140). Weinheim and Deerfield Beach, FL: Verlag Chemie.
- Burger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. New York: Penguin Books.
- Cokely, D. (1992). *Sign language interpreters and interpreting*. Burtonsville, MD: Linstock Press.
- Hayes, J. L., & Dilka, K. L. (1995). A "New" old language for credit and instruction in the schools. *Special Services in the Schools*, 9 (1), 119-124.
- Henderson-Summet, V., Weaver, K., Westeyn, T. L., & Starner, T. (2008) American Sign Language vocabulary: Computer aided instruction for non-signers. *ASSETS 08, October*, 13-15.
- Hofstede (1991). *Cultures and organizations: Software of the mind*. London: Mc-Graw Hill.
- Hoza, J. (2007). *It's not what you sign, it's how you sign it: Politeness in American Sign Language*. Washington DC: Gallawdet University Press.
- Ichida, Y. (1998). Grammar of Japanese Sign Language. *Language*, 27 (4), 44-51.
- Imai, K. (1998). Analyzing sign language through related theories. *A Quarterly Publication of Japanese Federation of Deaf*, 29, 3-11.

- Kanda, K. (1984). A digression of sign language. *Japan University of Social Welfare Working Papers*, 62, 144-149.
- Kanda, K. (1990). The lecture of sign language. Tokyo: Fukumura Publishing.
- Kanda, K. (1998). On the definition of signed languages. *Language*, 27 (4), 26-33.
- Kanda, K. (1999). On the current situation of sign language study. *Gakuto Journal*, 96 (7), 8-11.
- Keating, E. & Mirus, G. (2004). American Sign Language in virtual space: Interactions between deaf users of computer-mediated video communication and the impact of technology on language practices. *Language in Society*, 32, 693-714.
- Kitamura, Y. (1997a). A comparative study of American Sign Language and Japanese Sign Language: From a perspective of intercultural communication. *Dokkyo Working Papers*, 15, 101-120.
- Kitamura, Y. (1997b, February). *A comparative study of Japanese Sign Language and American Sign Language*. Paper presented at the monthly meeting of Institute for Research in International Communication, Tokyo, Japan.
- Kitamura, Y. (1997c, Jun). *Communication must be speech?* Paper presented at the annual meeting of The Communication Association of Japan, Nagasaki Prefecture, Japan.
- Kitamura, Y. (1998a). A cross-cultural study of American Sign Language and Japanese Sign Language. *IRICE (Institute for Research in International Communication) Plaza*, 8, 84-93.
- Kitamura, Y. (1998b, December). *Cultural differences manifested in Japanese Sign Language and American Sign Language*. Paper presented at the annual meeting of The Language and Culture Association of Japan, Tokyo, Japan.
- Kitamura, Y. (2009). A practical report of an English class carried out through spoken English and American Sign Language. *Yokohama College of Art and Design Works*, 4, 81-83.
- Kyle, J. G., & Woll, B. (Eds.). (1983). *Language in sign: An international perspective on sign language*. London: Croom Helm.
- Liddel, S., & Johnson, R. (1986). American sign language compound formation processes, lexicalization, and phonological remnants. *Natural Language and Linguistic Theory*, 4, 445-513.
- Marschark, M., & Everhard, V. (1997). Relations of language and cognition: What do deaf children tell us? In M. Marschark, P. Siple, D. Lillo-Martin, R. Campbell, & V. S. Everhart, *Relations of language and thought: The view from sign language and deaf children*. New York: Oxford University Press.
- Mindes, A. (1999). *Reading between the signs: Intercultural communication for sign language interpreters*. Yarmouth, ME: Intercultural Press.
- Mori, S. (1998a). Dialects in sign languages: A cross-linguistic study on Japanese and American Sign Language. *Language*, 27 (4), 59-63.
- Mori, S. (1998b). Can we prove that Japanese Sign Language is Japanese? *Modern Thought*, 26 (10), 142-151.
- Rosen, R. S. (2008). American Sign Language as a Foreign Language in U.S. High Schools: State of the Art. *The Modern Language Journal*, 92 (1), 10-38.
- Sacks, O. (1990). *Seeing voices: A journey into the world of the deaf*. New York: HarperPerennial.
- Saito, M. (1998). On sign language and spoken Japanese. *Modern Thought*, 26 (10), 136-141.
- Spulla, T., & Newport, E. (1978). How many seats in a chair?: The derivation of nouns and verbs in American sign language. In P. Siple (Ed.), *Understanding language through sign language research*. New York: Academic Press.
- Stokoe, W. (1960). *Sign language structure*. Burtonsville, MD: Linstock Press.
- Stokoe, W. (1976). *Sign and culture: A reader for students of American Sign Language*. Burtonsville, MD: Linstock Press.
- Stokoe, W. (1980). *A dictionary of American Sign Language on linguistic principles*. Burtonsville, MD: Linstock Press.
- Stokoe, W. (2001). The study and use of sign language. *Sign Language Studies* 1 (4), 369-406
- Torigoe, T. (1998). Language acquisition of sign language. *Language*, 27 (4), 64-71.
- Wright, J. (1984). The implications of cognitive science. In W. B. Gudykunst & Y. Y. Kim (Eds.), *Methods for intercultural communication research* (pp. 31-46). Beverly Hills, CA: Sage.