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# Expressing Negation in Chinese Sign Language

## Master's Project

Submitted to the Faculty  
of the Master of Science Program in Secondary Education  
of Students who are Deaf or Hard of Hearing

National Technical Institute for the Deaf  
ROCHESTER INSTITUTE OF TECHNOLOGY

By

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In Partial Fulfillment of the Requirements  
for the Degree of Master of Science

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## Abstract

This research project paper presents my observations and analysis of the expression of negation in Chinese Sign Language (CSL). I interviewed 15 Chinese Deaf adults in Beijing, China and videotaped those interviews. Some expressions of negation in CSL are similar to those found in other sign languages (e.g., ASL, BSL, and International Sign Language) in their linguistic aspects (e.g. non-manual signals, negative signs, and structures of negative sentences). On the other hand, I discovered that CSL has some unique features in the expression of negation. For example, there is a negative handshape, a fist with the little finger extended, the same handshape as the letter "I" in ASL; a horizontal hand wave used as a common negative sign (or gesture) often is substituted for a headshake. It seems that a horizontal hand wave and a side-to-side headshake have equivalent negative force, but they cannot be used simultaneously; and special structures that combine a positive sign and its negative form in many ways to function as "yes-no" question sentences. The structures of negative words and sentences show that CSL has a unique grammatical system.

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## Introduction

Negation is an important function in communication. There are many valuable linguistic discoveries on negation in American Sign Language (ASL), British Sign Language (BSL), and International Sign Language (Int. SL), but it is a blank area in Chinese Sign language (CSL) linguistic research. I will attempt to analyze the expression of negation in CSL by using the researches of other sign languages for reference. I expect that CSL has some similarities and differences in the ways of expressing negation as compared with other sign languages.

Chinese Sign Language (CSL), *Zhongguo Shouyu* 中国手语, is one kind of visual-manual language used by Chinese deaf people. It is transmitted through schools for the Deaf and Chinese deaf communities. According to Wen (1992) and Shen (1998), CSL is the most suitable communication tool for deaf people to converse with each other, because it is image-based, vivid, and convenient.

CSL has more than 100 years of history. A major original source for CSL is the naturally occurring signing that is used by some deaf people and their families, which sometimes becomes integrated with artificial signs used for educational purposes (Wen, 1992). Sign languages have developed in areas where there are deaf people and have been influenced by the local spoken languages. Most CSL signers write in Chinese in the same way that most ASL signers write in English. We can find influences of spoken and written Chinese in CSL just as we can find the influences of English in lexical parts of ASL.

In the *Dictionary of Special Education* (Piao, 1996), CSL is defined as all of the sign / gesture language and fingerspelling<sup>1</sup> used on the mainland, as well as signing and gesture language used by some people in Hong Kong, Macao, and Taiwan. Sometimes, sign language is called manual speech or manual communication by Chinese educators (Piao, 1996). Some early CSL dictionaries were *Longyaren Tongyong Shouyu Caotu* (draft of sign language for deaf, 1959) and *Longyaren Tongyong Shouyu Tu* (chart of sign language for deaf, 1979). An updated CSL authorized dictionary, *Chinese Sign Language* (Fu, 1989), collected about 3,000 lexical terms, three fourths of which come from *Longyaren Tongyong Shouyu Tu* (1979). The *Chinese Sign Language* supplement (1992) collected an additional 2,266 words. The stated primary reason for making CSL dictionaries is to standardize CSL (Piao, 1996; Wen, 1986). There are CSL dialects reflecting different local signs. In my videotape interviews, X. Y. Gao (personal communication, June 12, 1999) says that there are great differences and few similarities between the Northern CSL dialect and the Southern CSL dialect in lexicon and the use of facial expression or mouthing. Gao grew up in a southern city of China and attended a school for the Deaf where she learned the southern CSL dialect. When she transferred to a school for the Deaf in a northern city, she had a hard time understanding what her new teachers and classmates signed to her in the northern CSL dialect. She had to learn northern CSL as a new sign language. When she went to an art college where many deaf students came from different parts of China, those deaf college students communicated with mixed CSL dialects. The Chinese Deaf Association advocates that all deaf people

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<sup>1</sup> The Chinese finger Alphabet published in 1963 with 30 finger forms to represent the 26 Roman letters and the 4 digraphs ZH, CH, SH, and NG that represent four Chinese consonants. See Appendix 5.

and other people who work with the deaf should learn CSL by following the authorized dictionary, which reflects the southern dialects (Wen, 1992; Piao, 1990).

CSL has played an important role in Chinese Deaf education. It has become a rich language and has found widespread use in schools for Chinese deaf children. Wen (1986) indicates that CSL “gradually takes its present shape with the development of the education of the deaf” (p. 301). The first school for Chinese Deaf Children was established by Rev. Charles Rogers Mills and his wife Annetta T. Mills, who was a former teacher of Rochester School for the deaf, at Tun Chow, Chefoo, in China in 1887 (Piao, 1992). That school was supported by the Presbyterian Mission. Mrs. Mills wrote in the annual report of 1889 that spoken Chinese was easy for Deaf people to learn. She taught Chinese deaf children speech using Edmund Lyon’s manuals<sup>2</sup>, reading Chinese texts, and writing Chinese characters. Mrs. Mills designed a series of Chinese textbooks for Chinese Deaf children, “First-step Text for the Deaf” (*Qi Ya Chu Jie*)<sup>3</sup> in 1907. In those textbooks there are Chinese characters, phonetic letters, illustrations of Lyon’s manuals and semantic pictures, and examples phrases and sentences.

[Insert fig. 1 photo here]

With her Chinese colleagues Mrs. Mills also created the first Chinese phonetic manual symbols that converted A. G. Bell’s Visible Speech symbols and Lyon’s manuals to the Chinese manual symbols. (Zhou 1985). Although there is no evidence that Mrs. Mills used either ASL or CSL to teach Chinese deaf children, she described that her students used natural signing and written Chinese in the annual reports (Callaway, 1998).

<sup>2</sup> Edmund Lyon’s manuals were used to denote Zhuyin Zimu that was used to record the Chinese phonetic symbols in characters between 1918 and 1958.

<sup>3</sup> This origin textbook and the biography of Mrs. Mills are stored in the historic room at Rochester School for the Deaf, in New York.



Speech training and total communication are still popular in Chinese Deaf education (Ye, 1990; Piao, 1992). A main principle in deaf education syllabus is "Oral dominant, sign assisting" (Callaway, 1999 p. 40). This means that speech / spoken language comes first and sign language is used as a support and supplement in the total communication system. Most teachers view the sign language as a signed form of Chinese. That is, what educators call "sign language" is signed Chinese and thus very different from pure CSL or naturally signing CSL. Callaway (1999) surveyed a school for the deaf in Nanjing, Jiangsu Province, China with questionnaires. She finds: "When Chinese teachers and educationalists use the phrase "sign language" they do not mean the indigenous sign language of the Chinese deaf community, but are referring to a lexicon of signs used in the order of spoken Chinese" (Callaway, 1998, p. 40).

Recently, some educators in the Chinese Deaf education system have come to recognize that CSL has some unique characteristics that are different from Signed Exact Chinese (Shen, 1998).

## Literature Review

### 1. Research on the expression of negation in ASL

Baker-Shenk and Cokely (1980) say that ASL uses non-manual grammatical signals and negation signs to express negation. Most ASL linguists think the headshake is one part of non-manual, grammatical signals or facial expression, but some BSL linguists (e.g., Sutton-Spence and Woll, 1998) separate the headshake from facial expressions. Some ASL researchers say that negation signs frequently occur before the verb or at the end of the sentence. Baker-Shenk et al. (1980) notice, "some negation signs occur in

contractions" (p. 152), and they found that "a small set of signs that can be negated by adding an outward twisting movement to the sign" (p. 154).

Greene and Dicker (1989) describe some features of expressing negation in ASL. First, side-to-side head shake and negative facial expressions (e.g., a frown, knitted brows, and wrinkling of the nose) occur simultaneously with negative signs. Second, the negative marker NOT can be used instead of or in addition to the headshake. For example, to express "dislike", the sign "LIKE" occurs simultaneously with a side-to-side headshake. Or, there occurs a sign "LIKE"; then a sign "NOT", and two signs are accompanied by side-to-side headshake simultaneously. Third, the negative sign NONE often follows some verbs such as HAVE, SEE, EAT, and GET and negates them. Fourth, Greene and Dicker (1989) explain: "DON'T, NOT, or CAN'T may be put either before the verb or at the end of the sentence. If it is put at the end, or repeated at the end, the emphasis is greater" (p. 29). Finally, hand-movement can be used as a negator. For example, DON'T-WANT and DON'T-KNOW are incorporated into the signs WANT and KNOW with an outward hand-twist (derived from the sign DON'T). WITH-OUT is produced by the sign WITH and loosening the fists into open hands. This hand-movement reverses the order of the sign for WITH and negates it. In the CSL videotape data, we can find many similar examples (See Appendix C).

Ellenberger, Moores, and Hoffmeister (1975) studied the acquisition of negation by Alice, a deaf child of deaf parents. Alice's first language was ASL, and she used ASL plus speech in communication. The experimenters videotaped her interacting with her mother in her home a total of 9 sessions from the age of 25 month to 41 months. They discovered that the earliest negation in Alice's utterances was a negative headshake.



Therefore, Alice's mother's use of headshake was analyzed. They considered that the headshake in ASL is grammatical. It often is used as a single sign (interjection) or it occurs in many positions such as utterance initial or final. It also is frequently incorporated other negative signs. Additionally, the headshake occasionally is accompanied by a question indicator (it is like a gesture WHAT, a signer's hands are palm up and moving slightly side-to-side), functioning as a tag question "You're coming, no?" (Ellenberger et. al., 1975, p. 26). The headshake is not equal to "no" in English because it can be used with a word, phrase, or sentence simultaneously. Moreover, Ellenberger et.al. (1975) indicate that the headshake sometimes occurs simultaneously with other negative signs(e. g., NOT, DON'T, NEVER, NOTHING, CAN'T, and DON'T KNOW), but does not change meaning; rather it reinforces the negativity of the utterance.

## 2. Research on the expression of negation in BSL

Sutton-Spence and Woll (1998) describe three main elements of negation in BSL including facial expression, head movement, and negative signs. They describe two types of negative facial expression: one is a weak negation in which a signer's "lips are pushed out a little bit and the eyes slightly narrowed"; the other is a strong negation where a signer's "eyes can be almost closed, the nose very wrinkled and the mouth very turned down, or the lip very curled" (Sutton-Spence and Woll, 1998, p. 73). To express negation, there are two types of head movements in BSL: a "negation head turn" and a headshake. The researchers illustrated ten of the most common negation signs. Five out of the ten are found in similar signs in CSL as we shall see later:

- (1) Flat hand, palm down and twisting up, with the 'vee' mouth pattern.
- (2) Flat hand across the mouth, with the mouth pattern 'boo' or 'poo'.
- (3) Flat hand, palm down, crossed, moving out in a cutting action.
- (4) 'O' or 'F' hands circling.
- (5) The 'B' handshape moved from side to side.

(Sutton-Spence and Woll, 1998, 75)

Sutton-Spence and Woll (1998) point out: "some signs have their own negation form" (p. 77); that is, a signer can change a phonetic element (e.g., movement, direction of the movement, or orientation of the palm) of the sign to produce its antonym. In addition, they explain that multiple negation in BSL is used as a strong form of negation.

### **3. Research on the expression of negation in International Sign Language**

Webb and Supalla (1994) studied negation in International SL, a contact variety recently developed among deaf researchers. They indicate that negation "employs different types of linguistic devices" (Webb and Supalla 1994, p. 174) (e.g., Non-manual markers and sequential lexical negative signs). They believe that identifying negation is easy because the headshake and other manual negation gestures (e. g., two hands palm up and shoulders lifted simultaneously) are common negative markers.

Webb and Supalla (1994) analyzed how two deaf signers expressed negation in International SL in a videotaped presentation setting. The two signers were experienced users of international sign; one was fluent in LSF, and the other was fluent in BSL. The researchers collected data that combined the two signers' 94 instances of negation. They found five negative markers: headshake, negative adjunct (e.g., a palm-up gesture,

wriggling a flat 5 handshape or twisting an index finger), negative quantifiers (such as “no”, “nothing” or “none” in English), negative markers (e.g., NOT), negative modals (e.g., CANNOT); and six kinds of negation structures:

- 1) Headshake appears simultaneously with an utterance to negate the entire utterance;
- 2) A negative marker NOT is used as an utterance –final negator.
- 3) A negative adjunct appears in the post-verbal position because it follows and negates a verb. Negative quantifiers NO or NONE also appear in post-verbal negation.
- 4) The negative marker NOT and the negative modal CANNOT appear clausal-finally.
- 5) The negative marker NOT and the negative modal CANNOT appear in pre-verbal position, and
- 6) “The pre and post negators may either have a simultaneous headshake on both manual negative markers or no headshake on both; but a headshake never occurs throughout the scope of the negation in this structure” (p. 180).

In addition, Webb and Supalla (1994) state that “instances of negation in international sign are marked with either non-manual headshake or manual gestures, and often both” (p. 174). However, as we shall show, CSL has a grammatical rule different from the last part of that statement.

#### 4. Previous research on CSL

Pu and Mui (1986), Ye (1990) and Wen (1992) explain how CSL lexical signs are made. There are five principal ways:



- 1) Pictographic signs (Xiangxin 象形式), for example, SHUIJIAO (sleep) and YUE (moon), imitate the sleeping action or the moon's shape.
- 2) Compound signs (Huiyi 会意式) combine two or more signs; each sign with a meaning of its own helps to create a new meaning. For example, *JIAOSHI* (teacher) consists of JIAO (teach) and ZHU (host), LONG-REN (deaf person) is a compound sign of LONG (deaf) and REN (person), and MINGTIAN (tomorrow) is made by SHUIJIAO (sleep) and YI-TIAN (one day).
- 3) Signed imitations of written Chinese characters (Fangzi 仿字式), for example, GONG-REN 工人 (work + person) and WANG 王 (king), use fingers to profile Chinese characters.

[Insert fig. 2 here]

- 4) Pictophonetic signs (Xingsheng 形声 / 音义结合式), incorporate two parts. One part indicates meaning, and the other part represents similar sound. For example, SHI1-SHI2 事实 (fact) cooperates the first sign SHI1 事 (thing / matter) that borrows a homophonious "10" handshape because of the similar pronunciation, and the second sign SHI2 实 (true) that shows the word meaning. About 70% of written Chinese characters have this characteristic. For example, *He* 河 (river) consists of a left portion that means water, and a right portion that consists of or includes a character that is pronounced similarly to the word being depicted.
- 5) A newly coined sign with added sense in order to be more precise in expressing the meaning of a basic sign (Zhuanzhu 转注), for example, CHUNJIE (the Chinese

Spring Festival) is a greeting gesture cupping one hand in the other before one's chest to represent the Spring Festival. This gesture becomes a holiday sign in CSL and it can be used every day not only for greeting on the holiday. In addition, there are mixed signs or phrases used to create new or additional meanings.

Ye (1990) also shows that the directionality of movement plays an important role in CSL syntax to show active voice or passive voice. He illustrated the fact that CSL users often express sentences in S-O-V order. For example:

TA DIANYING KAN  
 he movie watch  
 'He watched a movie.'

In his dictionary "The Chinese Signs", Yau (1977) translated *Longyaren Tongyong Shouyu Caotu* (Draft of sign language for deaf, 1959) into English. That is the first and only CSL dictionary in English translation. Yau (1977) analyzes the formation of a sign and explains 5 visual aspects of CSL lexicon: "the hand configuration, the place of articulation, the movements and their orientations, facial expression and finally the intensity of gesture (force and speed)" (p. 3). He listed 41 types of handshapes (including Chinese fingerspelling, number signs, and other handshapes like classifiers to be used as nouns or pronouns describing shapes and sizes), 12 types of places of articulation (e.g., temple and forehead, eye, ear, nose, mouth, cheek, chin, shoulder, chest, arm, wrist, and hand), 10 types of movements (e.g., pointing, touching, tapping or pinching; directional movement; circular movement; wrist pivoting, jerking, wiggling, etc.) in CSL. Importantly for this study, Yau (1977) applied the label "NG-hand or BAD hand" (see



the “NG” handshape on Appendix E) to the negative handshape that is a fist with extended little finger like the letter I in ASL.<sup>4</sup>

Yau (1995) says that numerous basic signs or lexical items in CSL can expand in two ways: “modifying the morphology of the basic signs” and “combining two or more existing basic signs to form a compiled sign or a lexical pantomimic sequence to denote a notion or object new to that language” (p. 261). His research showed that CSL is productive and rich at the lexical / morphological level.

I have not found a deeper linguistic analysis in CSL than above resources. According to M. C. Ahlgren (personal communication, March 6, 2000), the “NG-hand or BAD-hand” (Letter I in ASL) is used as a negative signal in Thai Sign Language (TSL), Singapore Sign Language, and New Zealand Sign Language which are related to CSL and BSL, but they are not as productive as CSL. For example, “bad luck” in TSL is a compound sign: first, one upward plain B hand is tapped on the palm by finger-tips of the other bent “5” hand that means lines of the hand which shows a symptom of luck; second, the bent “5” hand is changed to “BAD-hand” with wiggling that means bad or no good. However, there does not seem to be any systematic alternation of positive and negative handshapes in TSL.

## Method

### Research purposes:

1. To show that most of those features of negation found in sign languages above can also be found in CSL utterances.

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<sup>4</sup> The letter I in CSL is the same as the number 1 handshape in ASL. See Appendix E.

2. To show that CSL has unique features of negation in aspects of phonology (e.g., negative handshapes are accompanied with varied movements and occurred in varied locations), morphology (e.g., hand waving may be used instead of headshake, but not simultaneously), and syntax (e.g., the combination of a positive item and its negative form or inserting a negative marker between two signs function as yes-no questions). Negative signals (e.g., the negative handshape, hand- waving, and headshake) frequently function as an interjection, a negative operator in initial / medial / final position, and a question tag.

### **Participants:**

I interviewed 15 deaf adults in Beijing, China in informal conversation situations in May and June of 1999. The interviewees have been deaf since childhood. They attended schools for the deaf. There are other deaf members (spouses or parents) in their families. Those 15 participants are fluent in CSL. Half of them know both the Northern and Southern CSL dialects. Those CSL dialects are different mostly in the lexical item rather than grammar (Wen, 1986;1992; Yau, 1977).

I observed and videotaped conversations which occurred one-to-one with me, one-to-one with someone else, small groups, and brief lectures about personal experiences for a total of 16 hours. There are two supplements: a 45 minutes videotape lesson taught by a Deaf teacher and a one-hour TV talk show, "*Shihua Shishuo: Qingting*" (Hearing what Deaf People Say) on the No. 1 Beijing TV channel (May 16, 1999).

### **Procedure:**

As a first step, I reviewed the videotapes looking for details that CSL signers used negation. Then, I took notes on index cards in glossed Chinese *Pin Yin* and translated the

glosses into Chinese. Next, I classified the note cards by features of negation in aspects of phonology (handshapes, movements, locations, orientations of the palm, and facial expressions of each negative item), morphology (word-roots, prefixes, and suffixes that mean negation), and syntax (the positions and functions of negative markers); then, I compared CSL with other sign languages (e.g., ASL, BSL, International SL, Thai Sign language, and Japanese Sign Language) in terms of negative words and negative sentences, discovered similarities and differences, and made charts. In addition, I chose typical examples of negation in CSL from the videotape and note cards. I translated the main examples of CSL negative words and sentences to glossed English, and translated the Chinese text to written English.

## **Results and Analysis**

In the CSL videotaped interviews, there are many examples of the use of negative facial expressions, headshake, negative adjuncts (body gestures), independent negative signs, and negative manual markers -- horizontal hand wave and negative handshape (see Webb & Supalla, 1994). Especially, the two negative manual markers are basic negative signs, and they also are morphemes or affixes in either an incorporating sign or a compounding sign unit.

### **1. Negative facial expressions**

There are two kinds of obvious negative facial expressions based on the videotaped data. One is a "cold" face; it looks serious, with tightly closed lips, and no smile. The other is a "moody" face; brows are drawn together and lowered, nose wrinkled, and the upper lip raised. The two negative facial expressions differ in the following ways: first,



the “cold” face shows the signer’s serious attitude; the “moody” face is the real negator or facial adverb to show the signer’s strong negative attitude. Secondly, the “cold” face has to be accompanied by negative signs to carry out negative meanings; but the “moody” face can be used as a stand-alone non-manual negative sign in conversations. Sometimes in discourse a plain facial expression is accompanied by a horizontal hand wave that denotes weak negation. Obvious negative facial expression and strength / frequencies of hand waving show various degrees of negation. In CSL, negative facial expressions, such as a frown, wrinkled nose, and raised upper lip, frequently occur simultaneously with negation signs. In the examples below, signs in CSL are indicated by capital letters; English glosses are given below.

- <1> KAISHI DINGZHE XIXIAODE-DIFANG nfe<sup>5</sup> BUXING2  
 Start look at small-place cannot / wrong  
 ‘At the start of drawing, you focus on an unimportant detail; that is incorrect.’

Obviously, the match between facial expression and signed utterance is an important grammatical rule in CSL. Negative facial expressions in CSL frequently co-occur with negative signs. If negative signs are accompanied by smile as a positive expression, that will confuse viewers into thinking that the message seems negotiable or insulting. For example:

- <2> \* XIGUA CHI pfe (smile) BU-hand waving  
 Watermelon eat no
- <3> \* ZHI (INDEX) pfe (smile) HUA BUHAO  
 Pointing Draw no good

<sup>5</sup> Negation facial expression (abbr. nfe): while signing wiggling a negative hand with the little finger pointing down, the signer simultaneously shows a frown and wrinkled nose.

An asterisk (\*) in front of an utterance indicates that the utterance is ungrammatical. Negative signs must be accompanied by negative facial expressions for agreement; and positive facial expressions should match positive signs.

## 2. Headshake

In ASL grammatical headshake frequently occurs simultaneously with any sign (Ellenberger et al., 1975). For example, ASL signers can sign "UNDERSTAND" accompanied with a headshake to denote "don't understand".

<4.1>                                headshake  
                                 UNDERSTAND  
                                 'I don't understand.'

However, I found that headshake is not simultaneously used with a sign to negate the sign in any of the CSL videotapes. CSL signers sign "DONG (understand)" and nod simultaneously. If signing "DONG (understand)" and headshake occur simultaneously, that is ungrammatical in CSL. For example,

<4.2>                                headshake  
                                 \* DONG  
                                 understand

There are two ways to negate "DONG (understand)": one is to add a hand-wave before signing "DONG" (see <5>); the other is to supplement a headshake after signing "DONG" (see <6>).

<5>                      DONG-BU(hand-wave)  
                                 Understand-not  
                                 'I don't understand.'

<6>                                headshake  
                                 DONG  
                                 understand not  
                                 'I don't understand.'



CSL signers sign “XIHUAN (like)” and nod-smile simultaneously. To negate the utterance “XIHUAN (like)”, a headshake shows up after signing the “XIHUAN” that incorporates a nod-smile facial expression, but the headshake is not instead of the nod. For instance:

		<u>(nod/smile)</u>	<u>headshake</u>
<7>	ZHI (INDEX)	XIHUAN	
	pointing	Like	no
	‘ I do not like it.’		

This is similar to ASL, where effectively the entire sentence is topicalized or questioned, and the headshake is the answer. It is equivalent to the yes-no version of so-called rh-q (Baker-Shenk & Cokely, 1980). For example:

		<u>headshake</u>
		<u>pfe (nod / smile)</u>
<8>	* ZHI (INDEX)	XIHUAN
	pointing	like

Example <8> is not grammatical in CSL. There is another sign for BUXIHUAN (dislike) that is accompanied by negative facial expression. After a signer signed BUXIHUAN (dislike), the headshake occurred for purpose of emphasizing the initial negation. At this point, CSL is similar to BSL; headshake is separated from negative facial expression. Headshake often follows a topic instead of a negative sign, such as horizontal waving of a “5” hand. For example:

<9>	LONG-REN LAOSHI DONGDE LONG-REN XIN-LI,	GUANXIN LONG-
	Deaf- person teachers understand deaf person heart-inset	look after deaf-
		<u>t</u> <u>headshake</u>
	XUESHENG DUO; PUTONG LAOSHI	
	Students a lot hearing teachers	not

'Deaf teachers understand deaf people's hearts, take care of deaf students a lot, (but some) hearing teachers do not so.'

There is other kind of headshake where a signer turns his head to a side and holds it for 2 seconds, then he returns his head to look at the listener. This shows negative affect on the part of the signer. For example:

<10> LI LINDDAO JIAN-YI TI LONGREN XUEXIAO YINGAI DUO ZHAO  
 Li leader suggestion offer deaf school should more hire  
 LONGREN DANG LAOSHI HAO; XIAOZHANG, head-turn-to- the-side nfe BUTING,  
 deaf-person be teachers principal (not) not listen  
 ZIJE JUEDING: 4 LONG-REN LAOSHI GUOLE.  
 Themselves make a decision: four deaf-person teachers enough

'Gov. Li suggested to a school principal that they should hire more deaf teachers, (but one thing made me angry that) the principal did not accept (Li's suggestion) and he made his own decision that four deaf teachers (in his school for the Deaf) were enough.'

### 3 Negative adjuncts

Negative adjuncts (Webb and Supalla, 1994) are body gestures that show negative meaning. In the CSL conversation, signers sometime shrugged and opened their hands with palm up to denote negative meaning. The negative adjunct always occurs at the end of sentence; sometime it is used as a negative interjection. For example:

<11> TA XIA GANG nfe. QIAN SHAO, shrug  
 He step-down job money little  
 'He lost his job, had no much money, (I cannot help him).'

#### 4 Negative signs

Appendix A shows typical and independent negative signs that negate a word or sentence in CSL.

Those negative signs are fundamental. They often are used as an independent utterance or as grammatical material to build compounding signs, phrases and sentences. The negative handshape (a fist with extended little finger) and hand movements are two productive elements.

#### 5 Negative manual markers --- NG handshape and hand-wave

In this paper, I focus on analyzing more about negative handshape, movements that show negation, and incorporation of negative signs. I find that negative handshape and hand-waving movements that show negation in CSL are productive.

There is a negative handshape ---- a fist with extended little finger, as Yau (1977) defined "NG hand or BAD hand". Its opposite is a positive handshape that is equivalent to the "thumbs-up" gesture, which Yau (1977) labeled "A hand or GOOD hand". CSL and Thai SL signers utter "not good" by slightly wiggling a fist with the extended little finger. I classify three types of the NG handshape in a variety of negative signs.

First, the NG handshape is used as an independent negative sign incorporating varying movements. For example:

1) Slightly horizontally wave a fist with extended little finger, meaning "not good, bad, or wrong".

2) Slightly vertically wave a fist with downward little finger, meaning "impossible", "cannot", "do not", or "have not done well".



3) A fist with stretched little finger draws an "X" in air, meaning "incorrect" or "wrong answers" (in Chinese culture the symbol X denotes incorrect and negation).

4) Two fists with extended little fingers move simultaneously outside; that sign denotes "to object to something or someone".

Second, the NG handshape incorporates different locations and directions of the extended little finger to produce new negative items. For example:

5) The extended little finger pasted on the chest to denote "I am sorry" or "I did wrong".

6) The NG hand toward another person means that person is wrong or did wrong.

7) The extended little finger touches on the temple to represent "to regret wrongdoing".

8) The extended little finger brushes the back of the other hand, meaning "dirty".

9) Some Chinese deaf people used to sign LONG (deaf) with the extended little finger touching an ear and dragging to a corner of the mouth.

Third, the NG-hand is often used as a negative suffix or tag. Most negative compound signs include the extended little finger that carries out a negative meaning.

Four examples are the following:

10) BUXING1 不幸(Unfortunate), the tips of a B hand slightly touch the forehead, then the B handshape is quickly changed to the NG handshape. Here, the NG hand functions as an adjective, but acts a negative suffix of a sign unit.

11) JISHU-CHA 技术差 (not skillful), the tips of a B right hand slightly touch the back of the B left hand, then, the B handshape of the right hand is quickly changed to the NG handshape. This compound sign assimilates two separated signs "JISHU" (technique)



This repeated down-and-up hand movement is semantically equivalent to a nod in the same way that a horizontal hand wave is semantically equivalent to a side-to-side headshake. A historical change that head movement becomes hand movement is found in ASL. Frishberg (1975) describes the sign "PATIENT" changed from head bowing downward to hand movement downward. It can be a reasonable assumption that head shake or nods were shifted to hand movement to incorporate or compound with other hand shapes. See, for examples, alternative ASL signs for "YES" and "NO" which involve a fist (representing the head) nodding or twisting respectively. Based on the videotaped data, CSL signs frequently use side-to-side hand waving to incorporate manual signs to express negation, and use down-and-up hand movement to incorporate manual signs to express positive responses. The hand movement and head movement do not often occur simultaneously.

## **6. Pairs of negative and positive words**

Many CSL signs have pairs of positive items and corresponding antonym forms. They differ in the direction of movement, types of movement, or handshapes. A thumbs-up is the positive handshape and an extended little finger is the negative handshape. The following CSL examples show how to produce some of these pairs.

1. Switch or change a thumb-up to an extended little finger. This would be a morphological negation if the thumbs-up or an extended little finger (the NG handshape) were a morpheme. Table 2 shows some examples; for greater detail, see Appendix B.

Table 2 Positive-Negative Pairs with Thumb-up or Extended Little Finger

Thumb Up	Extended Little Finger
DUI 对 (correct / right)	CUO 错 (wrong)
GANJING 干净 (neat)	ZANG 脏 (dirty)
JISHU HAO 技术好 (skillful)	JISHU CHA 技术差 (unskillful)
XINGHAO 幸好 (fortunate)	BUXING 不幸 (unfortunate)

2. Reverse or change the direction of original movement or pointing. That would be morphological negation if the direction movement were a morpheme. See Table 3, and there are more details in Appendix C.

Table 3 Positive-Negative Pairs that differ in direction of hand-movement

Pair Signs	Formation
TING (listen) BU-TING (not listen)	An index finger points to an ear. The index finger moves away from the ear.
FUCONG (obey) BU-FUCONG (not obey)	The tips of a bent B hand touch the face. The tips of a bent B hand move away from the face and palm orientations are opposite.
SHI (be / yes ) BU-SHI (not be / no)	10-hand moves up and down. 10-hand moves side to side.
KEYI (yes, may, can) BU (no)	B (or close 5) hand repeatedly bents and straights. B (or close 5) hand waves repeatedly

2. A sign assimilates or incorporates with a negative sign BU (no / not, horizontal hand wave) to make a new incorporated sign that is similar to the way signs like DON'T KNOW are formed in ASL. That seems to be a phonological process (This topic will be discussed more in the section on "the negative signs in sentences").

See Table 4.

Table 4 Positive-Negative Pairs with Additional Hand-movement for the Negative

Pair Signs	Formation
DONG 懂 (understand)	An index taps on the head.
DONG-BU 不懂 (not understand)	The index finger moves away from the head and the fist loosens to an open 5 handshape.
YAO 要 (want)	A palm up "B" hand pulls toward the body.
BU-YAO 不要 (not want)	The "B" hand palms up and down repeatedly.
XIANGXIN 相信 (believe)	A pain B inserts between the thumb and index of the other bent B hand.
BU-XIANGXIN 不相信 (not believe)	The pain B (inserted between the thumb and index of a bent B) moves out from the palm of the bend-B hand.

4. Compound with independently BU-hand-waving or other negative signs. This constitutes syntactic negation. See Table 5, and Appendix D shows more examples.

Table 5 Some Signs Negated by BU-hand-wave

Negative Signs	Antonyms (compound BU-hand-wave)
DAJIA (fight)	BU DAJIA (do not fight)
TIAOTI (pick flaws)	TIAOTI BUXING (cannot pick flaws)
YIMOU (bad scheme)	MEIYOU YINMOU (have no bad scheme)

## 7 Negative signs in sentences

Three basic types of negative structure described by ASL researchers (e.g., Webb and Supalla, 1994; Ellenberger, Moores, and Hoffmeister, 1975) are found in CSL. In addition to a negation interjector (<1>, <2>, <3>, and <4.2>), negative signs are used in post-lexical position (<12>, <13>), pre-verbally (<14>, <15>), post-clause (<16>), and pre & post sentence (<17>, <18>).









Huang (1982) described this type of yes/no sentence in spoken Chinese as the “A-not-A” question. “It is a kind of yes/no question, taking a disjunctive form requesting the addressee to identify either the affirmative or the negative from its two disjuncts” (Huang, 1982, p. 277).

b. Fluent CSL signers frequently compound the negative sign “BU” with the second verb “QU” to an incorporation form. A connector such as “OR” between a positive form and its negative form is not needed in CSL and spoken Chinese. For example:

<21>    QU     $\overset{q}{\text{BUQU}}$  (incorporation)  
              go    not-go  
              ‘Do you go (or not)?’

This type of questions with a pair of positive-negative words is common in spoken and written Chinese (Huang, 1982). That influences CSL. However, for CSL in the “A-not-A” pattern (Huang, 1982), the negative morpheme “BU” (not) and the second A, a verb “QU” in the above example sentence, become one smooth compound sign that cannot happen in spoken Chinese. Frishberg (1975) indicates “Those assimilatory processes show that boundaries between the separate parts of a compound sign are changing from word-type boundaries to something more like morpheme boundaries” (p. 717). The negative sign morpheme “BU” (not) often is assimilated with the following sign. The boundary between “BU” and a following sign is lost, and the movement or direction of the following sign is changed. For example, “BUYAO” (not want) is formatted by twisting a B hand palm down and up twice (meaning ‘I don’t want to accept something’); or to show a B hand palm up, then turn the palm down in an outward

twisting action (meaning 'I don't want to keep something anymore' or 'something needs to be cancelled').

c. The second type of yes/no question with a positive-negative pair in CSL is to switch the thumb and little finger quickly. It is often used to ask 'right or wrong', 'good or bad', and 'thumbs up or thumbs down'. For example:

<22>                     $\overset{q}{\text{HAO-BUHAO}}$   
                               Good-no-good  
                               'Is it good (or not)?' or 'It is good or bad?'

d. The third type of yes/no question with a positive-negative pair in CSL is to change the original movement direction; the change in movement is a negative morpheme. For example, a positive sign "SHI" (yes / be) is found by moving the "SHI (10)" hand down and up like nodding; its negative form "BUSHI" (not be) changes SHI's original movement direction to twist the "SHI (10)" hand from side to side.

<23>                     $\overset{q}{\text{NI LAOSHI SHI BUSHI}}$   
                               You teacher are / yes aren't/ no  
                               'Are you a teacher (or not)?'

e. There are two ways to express yes/no question tags: first, to repeat a verb (Verb +++ ) accompanied by negative facial expressions, such as, frown, wrinkled nose, and almost closed eyes. For instance,

<24>                     $\overset{t.}{\text{KAIHUI}} \quad \overset{nfe}{\text{QU +++}}$   
                               meeting            go +++  
                               'You are going to go to join a meeting, aren't you?'



- <25>       $\overset{\cdot}{\text{NI LAOSHI SHI}} \xrightarrow{\quad\quad\quad} \text{+++}^q$   
 You teacher are / yes +++  
 'You are a teacher, aren't you?'

Second, to repeat a negative sign or a horizontal hand wave, as a question tag. For example:

- <26>       $\overset{\cdot}{\text{QU BU-hand-wave}} \xrightarrow{\quad\quad\quad} \text{+++}^q$   
 Go not +++  
 'You don't go, do you?'

- <27>       $\overset{\cdot}{\text{DIANSHI KAN BU-hand-wave}} \xrightarrow{\quad\quad\quad} \text{+++}^q$   
 TV watch not +++  
 'You don't watch TV, do you?'

The above data show that CSL signers express negation in various ways and negative signs in CSL are rich and productive.

## Discussion

In this section, I attempt to highlight the major similarities and differences between what I have found in CSL compared with ASL, BSL and International SL.

CSL shares some similar features with other sign languages in the expression of negation. Negative elements in International SL distinguished by Webb and Supalla (1994) are found in the videotaped CSL interviews. Non-manual signs (e.g., negative facial expression, headshakes, negative adjuncts) that express negation in CSL are similar with usage in ASL, BSL, and International SL. Negative signs and negative makers in

CSL come from a similar grammatical framework of negative structures in ASL, BSL, and International SL. See Table 6.

Table 6 CSL Negative Markers that are Also Found in Other Sign Languages

Negative Markers	ASL, BSL, Int. SL	CSL
Negation facial expression	Frown, brow squint	"Cold" face, frown, wrinkled nose, raising upper lip
Headshake	Side to side	Side to side, Head turns to the side and holds
Negative adjuncts	Open hands, lift shoulders	Open hands, palm up, lift shoulders
Negative signs	NO, NONE NOT	BU 不, MEIYOU 没有, WU 无 BU 不, BUHAO 不好, BUHUI 不会, BUSHI 不是, TINGZHI 停止
	CANNOT	BUXING2 不行, BUNENG 不能
Negative movements	Twist a wrist (i.e., DON'T-KNOW, DON'T-WANT) Reverse the order of an origin sign (i.e., WITHOUT)	Twist a wrist (i.e., BUYAO 不要, BUGUAN 不管, BUZUNJING 不尊敬) Reverse the order of an origin sign (i.e., BUTING 不听, BUXIANGXIN 不相信, MEIGUANXI 没关系)

Moreover, there are many ways to produce corresponding antonym forms in sign languages. CSL can change the original movement of positive items or incorporate a negative sign (e. g., BU (no/ not)) as ASL and BSL do (e.g., NEVER, NOTHING).

However, based on the videotape data, CSL has some unique features that are not found in ASL, BSL, and International Sign Language. First, CSL can shift the movement direction to negate a corresponding item. If some signs show that a hand is moved toward

the signer's body, CSL signers can move the same hand outward or move away from the body which is a way to negate the original sign. Second, most compound negative signs are accompanied by horizontal hand wave instead of headshake. The horizontal hand wave is a manual negative sign for "NO / NOT", and the headshake is a non-manual sign for "NO / NOT"; thus, the horizontal hand waving and headshake are equivalent in CSL. Most obviously, changing the positive handshape (thumbs-up) to the negative handshape (the Ng handshape or a fist with extended little finger) also produces many negative signs.

Additionally, accompanied by question facial expressions, the combinations of a positive item and its negative form (e.g., switching a thumb and a little finger in the fist, A-not-A patterns) can function as yes / no question sentences in CSL. That feature cannot be found in ASL, BSL and International Sign language. A-not-A patterns in CSL are more widespread than in spoken Chinese. Sometime, the "not" negative sign incorporates the second A, becoming "A – not A", i.e., two sign units. Spoken Chinese cannot do that. CSL word orders are more flexible than spoken Chinese. In "A – not – A", if A is a verb and followed by a same object; the object often in moved in front of the first verb, but that shift is impossible in spoken Chinese. For instance:

<28>  $\begin{array}{cccc} & & \text{nfe} & \text{q} \\ \hline \text{XUEXIAO} & \text{QU} & \text{BU} & \text{QU} \\ \text{school} & \text{Go-to} & \text{not} & \text{go-to} \end{array}$

'Do you go to school (or not)?'

(Grammatical in CSL, but not grammatical in spoken Chinese.)

<29>  $\begin{array}{cccc} & & \text{nfe} & \text{q} \\ \hline \text{QU} & \text{BU} & \text{QU} & \text{XUEXIAO} \\ \text{Go} & \text{not} & \text{go-to} & \text{school} \end{array}$

'Do you go to school (or not)?'

(Grammatical in both CSL and spoken Chinese.)



<30>  $\begin{array}{ccccccc} & & & \text{nfe} & & & \text{q} \\ & & & \hline \text{QU} & \text{XUEXIAO} & \text{BU} & \text{QU} & \text{XUEXIAO} \\ \text{Go-to} & \text{school} & \text{not} & \text{go-to} & \text{school} \end{array}$

‘Do you go to school (or not)?’

(Grammatical in CSL and spoken Chinese, but not often used in CSL.)

<31>  $\begin{array}{ccccccc} & & \text{t} & & & & \text{nfe} \\ & & \hline * \text{QU} & \text{XUEXIAO} & \text{BU-QU} \\ \text{Go-to} & \text{school} & \text{not-go} \end{array}$

‘(You ask me if I) go to school, I do not go.’

(Ungrammatical in either CSL or spoken Chinese.)

## Conclusion

Language is a mirror of a culture. Horizontal hand wave, verb-hand-wiggling, and the extended little finger (the NG handshape) are understandable and meaningful gestures in CSL and Chinese culture. Most Chinese people use those gestures to negate something in limited communication conditions. In Chinese culture and traditional education practices as well as deaf educational systems, negative expressions are used widely and frequently to teach children what is right and what is wrong, what should be done and what should not be done in language acquisition, modifying behavior, and moral education domains. Deaf children quickly notice the negative feedback by reading a signer’s extended little finger, negative facial expression, handshakes, and other manual signs.

However, horizontal hand wave, verb-hand-wiggling, and the NG handshape (extended little finger) are grammatical markers in CSL. The negative handshape and negator of hand movements found in CSL show that CSL has a unique grammatical system and contributes some new results to sign language research.

There are some limitations of this study. I should collect more data from Chinese Deaf children of deaf parents. There was not specific topic to be focused / aimed before videotaping. My research topic was found in the process of videotaped data analysis. Data translations are difficult. I used chain interpreting translating CSL to written Chinese and English. It is necessary to analyze CSL more deeply within modern linguistic frameworks and find more similarities and differences with other sign languages; for example, we may find similar or unique features in other types of sentences, such as yes/no questions or wh-questions, compared with negative sentences.

## References:

- Baker-Shenk, C. & Cokely, D. (1980). *American sign language: a teacher's resource text on grammar and culture*. Washington, DC: Gallaudet Univ. Press.
- Callaway, A. (1998). Deaf children in China. *China Review*, Spring, 28-32.
- Callaway, A. (1999). Considering sign bilingual education in cultural context: A survey of deaf schools in Jiangsu Province, China". *Deafness and Education International*, 1(1), pp. 34-46.
- China Deaf Assoc. (Ed.). (1989). *Zhongguo Shouyu* [Chinese Sign Language]. Beijing, China: Huaxia Press.
- Ellenberger, R. L., Moores, D. F., & Hoffmeister, R. J. (1975). *Early Stages in the Acquisition of Negation by a Deaf Child of Deaf Parents*. (Research Rep. No. 94). Minneapolis, Minnesota: University of Minnesota, Research, Development and Demonstration Center in Education of Handicapped Children.
- Frishberg, N. (1975). Arbitrariness and Iconicity: Historical Change in American Sign Language. *Language*, 51(3), 696-719.
- Greene, L. & Dicker, E.B. (1989). *Sign Me Fine*. Washington DC: Gallaudet Univ. Press.
- Huang, C. J. (1982). Logical relations in Chinese and the theory of grammar. Unpublished doctoral dissertation, Massachusetts Institute of Technology.
- Piao, Y. X. (1992). *Teshu Jiaoyu Gailun*, [An Introduction of Special Education]. Beijing, China: Huaxia Press.
- Piao, Y. X. (1996). *Teshu Jiaoyu Cidian* [Dictionary of Special Education]. Beijing, China: Huaxia Press.



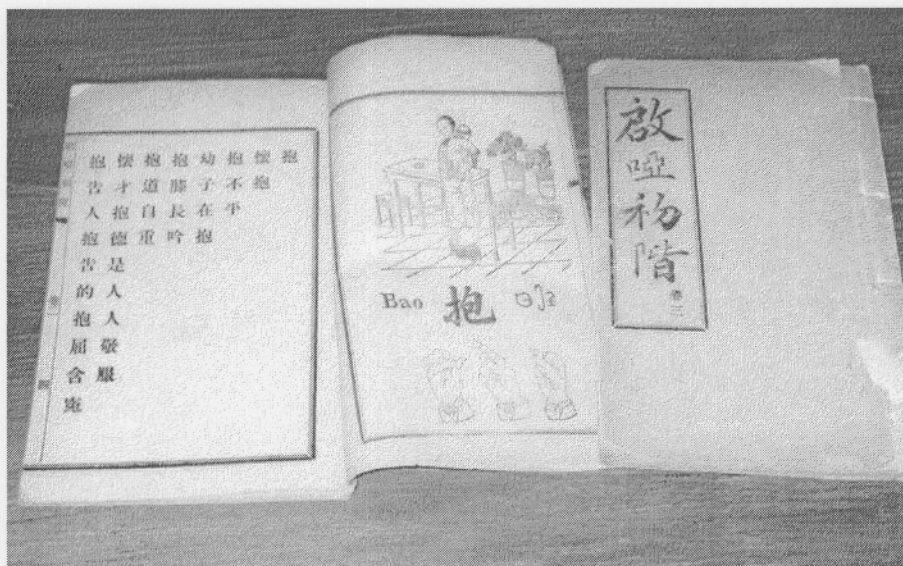
- Pu, Y. T. & Mui, C. K. (1986). *Longren Shouyu Gailun* [An introduction to the Chinese sign Language]. Shanghai, China: Xuelin Press.
- Shen, Y. L. (1998). Shouyu Xingzhi Fenxin [Analyzing qualities of sign language]. *Teshu Jiaoyu Yanjiu* [Research on special education], 26, 6-10.
- Sutton-Spence, R. & Woll, B. (1998). *The linguistic of British sign language: An introduction*. UK: Cambridge Univ. Press.
- Webb, R. & Supalla, T (1994). Negation in international sign. In I. Ahlgren, B. Bergman, & M. Brenman (Eds.), *Perspectives on sign language structure* (pp. 173-185). England: the International Sign Language Linguistic Asso.
- Wen, D. M. (1986). Sign language in China. In U. Engzell, E. Kwan, et al. (Eds.), *Towards better communication, cooperation and coordination: Proceedings of the 1<sup>st</sup> Asian-Pacific Regional conference on Deafness* (p. 301). Hong Kong: HK Society for the Deaf.
- Wen, D. M. (1992). Xulun [Preface]. In Y. X. Piao (Ed.), *Zhongguo Shouyu Jiaoxu Fudao* [A teacher's book of Chinese Sign Language] (pp.1-24). Beijing, China: Huaxia Press.
- Yau, S. S. (1977). *The Chinese signs: Lexicon of the standard sign language for the deaf in China*. Hongkong: Language Croises.
- Yau, S. S. (1990). Lexical Branching in Sign Language. In S. D. Fischer & P. Siple (Eds.), *Theoretical Issues in Sign Lanuage Research Vol. 1* (pp. 261-278). Chicago: The Univ. of Chicago Press.
- Ye, L. Y. (1990). *Longxiao Yuyan Jiaoxue* [Teaching Language Arts in Schools for the Deaf]. Beijing, China: Guangming Daily Press.

Zhou, Y. G. (1975, 1982). The Chinese finger Alphabet and the Chinese Finger

Syllabary. In S. Carmel (Ed.), *International Hang Alphabet Charts*, (pp. 111-12).

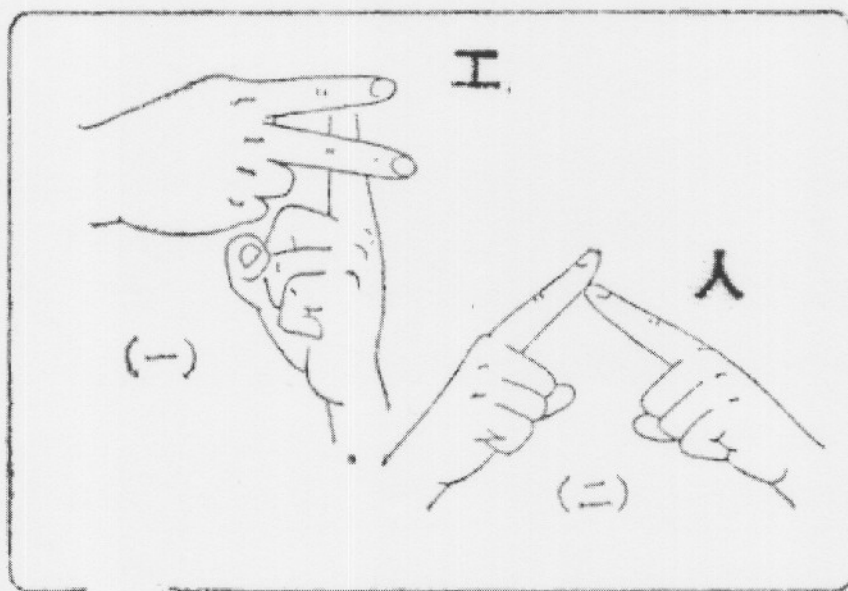
Rockville, MD: Studio Printing Inc..

**Figure 1** Mrs. Mills' Textbook for Chinese Deaf Children from the 1890's



Source: Rochester School for the Deaf, in New York, photographed by J. H. Yang.

**Figure 2** Two Signs Based on Chinese Characters



Source: China Deaf Assoc. (Ed.). (1989). *Zhongguo Shouyu* [Chinese Sign Language].

Beijing, China: Huaxia Press, p. 18.



## Appendix A Common CSL Negation Signs

CSL Negation Signs		Formation	Meaning
BU	不	A "5" or "B" hand waves horizontally.	No, none, nothing, do not, did not, have not down, etc.
BUDUI	不对	A fist with extended upward little finger wiggles slightly or draws an X in the air.	Something is wrong, and incorrect.
BUHAO	不好	A fist with extended upward little finger wiggles slightly.	Something or somebody is not good, wrong, and inappropriate.
BUHUI	不会	A B-hand brushes on the forehead.	Do not know.
BUNENG	不能	A fist with extended downward little finger wiggles.	Someone cannot have anything or do something impossibly.
BUSHI	不是	A "10" hand or "X" hand <sup>7</sup> waves side to side or turns to the outside.	No and "not be".
BU XING <sup>2</sup>	不行	A fist with extended downward little finger wiggles.	"Do not do anything" and forbidden to do something.
FANDUI	反对	Two fists with extended little fingers move simultaneously outside.	To object to something or someone.
MEI YOU	没有	A "o" or "F" handshape is located near the chin and the index and the thumb snap several times.	None, nothing, "do not have anything", did not, and have not done.
TINGZHI	停止/ 禁止	Two flat "B" hands, the first hand palms up; the other hand moves down on the palm of the first hand in a cutting action.	"Do not do a thing" and stop now. e.g., LIAO-TIAN TING Chat stop 'Do not chat now.'
WU	无	A flat "B" hand moves across the mouth, with the mouth pattern 'hoo'; or horizontally waving 'O' or 'F' hand.	None, nothing, "do not have anything".

<sup>7</sup> The "10" handshape or "X" handshape in CSL is the same as the letter "R" in ASL. See Appendix E & F.

### Appendix B Some CSL Negative Signs with the NG handshake

Negative Signs	Handshape / Palm Orientation	Movement / Location	Positive Signs	Changes
BAOBI [Harbor]	NG and B down	A B hand covers up the NG hand in the front of the body	BAOHU [Protect]	handshape NG > A
BUXING1 [Unfortunate]	B, NG inward	4 finger tips touch and move out on the forehead	XINGHAO [Fortunate]	handshape NG > A
CHOULOU [Ugly]	B, NG inward	Touch and move out from the nose	MEILI [Beautiful]	handshape NG > A
CUOWU [Wrong]	NG One side	Hold or slight wave in the front of a signer's body	ZHENGQUE [Correct]	handshape NG > A
GANQING BUHAO Feeling bad	B, NG inward	Touch and move out from the chin	GANQING HAO [Feeling good / get along well]	handshape NG > A
JISHU BUHAO [Unskillful]	B (bent), NG down	Tap on, lift up On the back of a hand	JISHU HAO [Skillful]	handshape NG > A
LONG-YA [Deaf]	NG inward	The little finger tip touches On the ear	PUTONG [Hearing]	handshape NG > A
MINGSHENG BUHAO [Have a bad name]	INDEX with NG	The index finger tip touches, move out	MINGSHENG HAO [Famous]	handshape NG > A
QUEDIAN [Fault]	INDEX with NG down	Tap on, lift up On the back of a hand	YOUDIAN [Benefit]	handshape NG > A
WEIDAO BUHAO [Not delicious]	INDEX with NG inward	On the corner of the mouth	WEIDAO HAO [Delicious]	handshape NG > A
ZANG [Dirty]	NG inward	The tip of the little finger skims over the back of other hand.	GANJIING [Clear]	handshape NG > A

## Appendix C Some CSL Negative Signs with a Movement-Negator

Negative Signs	Handshape / Palm Orientation	Movement / Location	Positive signs	Changes
BU [no / not]	B outward	Waving side to side	KEYI [Can/may]	Movement > bend and upward
BUDONG [not understand]	1 and 5	1 hand tips the forehead, then changes to 5 hand and moves away	DONG [understand]	Movement > touch and hold
BU FUCONG [disobey]	B	Move away from a corner of the mouth	FUCONG [obey]	Movement > touch and hold
BUGUAN [not care about]	B down	Skim over a shoulder	GUAN [take a responsibility]	Movement
BUSHI [not be / no]	10 down	Waving side-to-side	SHI [be / yes]	Movement .> up and down
BUTING [ignore]	B	Move away from an ear	TING [listen]	Movement > touch and hold
BU XIANGXIN [not believe]	A bend B and a plain B (Two hands)	A pain B hand is inserted between the thumb and index of a bent B. The pain B moves out from the palm of the bend-B hand.	XIANGXIN [not believe]	Movement A pain B inserts between the thumb and index of the other bent B hand.
BUYAO [not want]	B Upward and down	Rotating the B hand	YAO [ want]	Movement > in and out
BU ZUNJING [disrespect]	A (thumb up) and B (upward)	A hand sets on the center of the other palm, then separates away	ZUNJING [respect]	Movement > no movement
MEI GUANXI [not matter / no relation]	3 <sup>8</sup> and 3 (Two hands)	Thumb and index release, two hands move out from linked position.	YOU GANGXI [have a relation]	Two 3 hands are linking.
MEIYONG [useless]	Bent B	Tips of fingers knock on a side of waist	YONG [use / useful]	Movement >move away



## Appendix D Some CSL Negative Signs with a Syntax-Negator

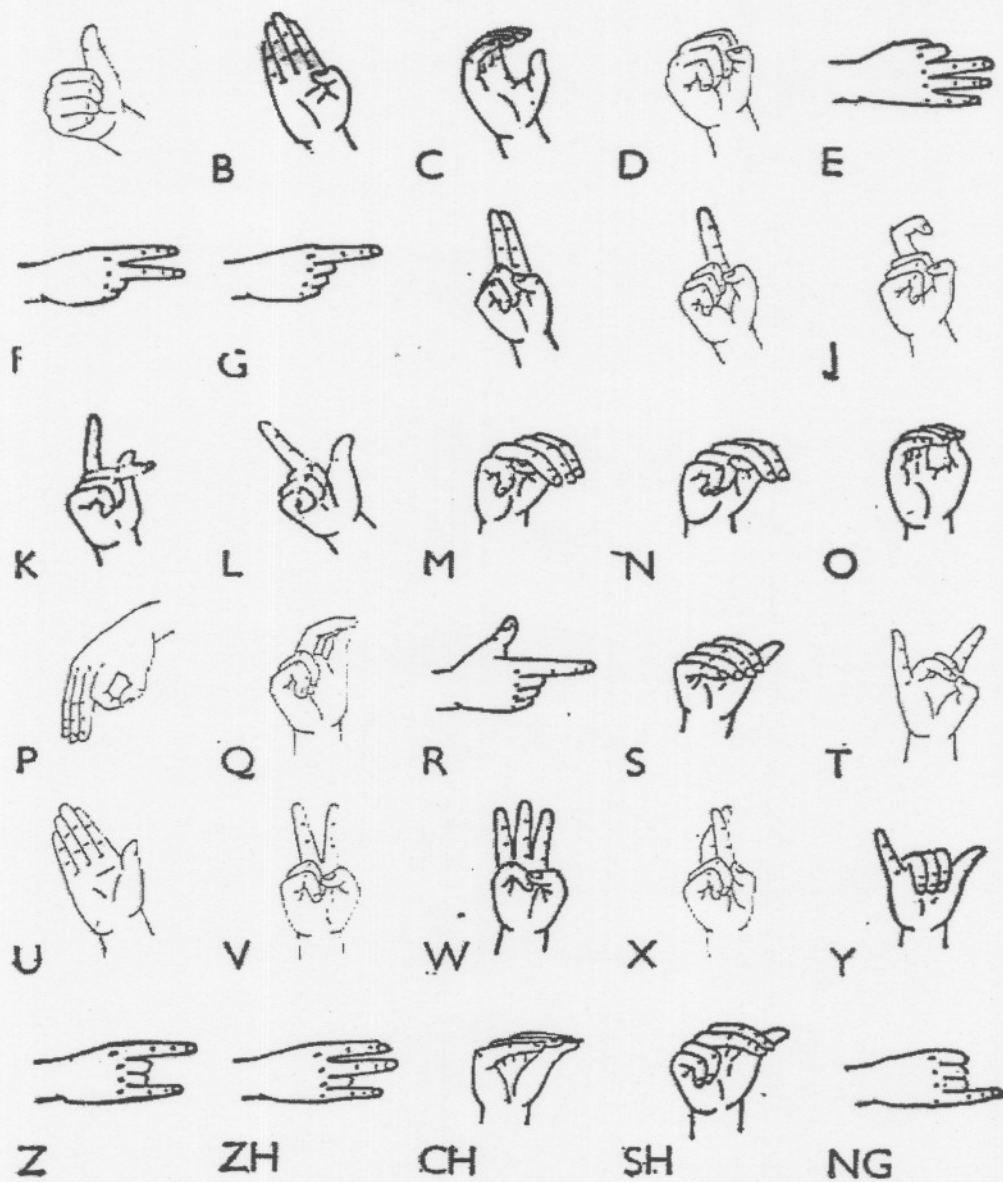
Negative signs	Handshape / Palm orientation	Movement / Location	Opposite signs	Changes
CHIKUI [Take a disadvantage]	INDEX with NG inward	The index finger tip touches the chin, then moves away.	---	Add a sign BUSHI Or MEIYOU
DAJIA [Fight]	NG inward	Two index fingers touch each other	----	Add a sign BU
DUIBUQI [sorry]	NG side	The side of a palm touches the chest	---	Omit "BU"
GOUJIE [Gang up with]	NG (bent the little finger) inward	Two index fingers collide with each other.	----	Add a sign MEIYOU
HOUHUI [Regret]	NG inward	The little finger tip touches the temple	---	Add a sign BU
SHENGQI [angry]	Y Down	The tip of the thumb touches the stomach	---	Add a sign BU
XIANG BU CHULAI [Have no idea]	INDEX with NG inward	The index finger tip touches, then moves out from the temple	XIANG YOU [have an idea]	Omit NG hand and add a sign "YOU"

<sup>8</sup> The number 3 handshape in CSL is like F or 9 in ASL. See Appendix F.

Appendix E Chinese Manual Alphabets

# 汉语手指字母图

HANYU SHOZHIZI ZIMU TU

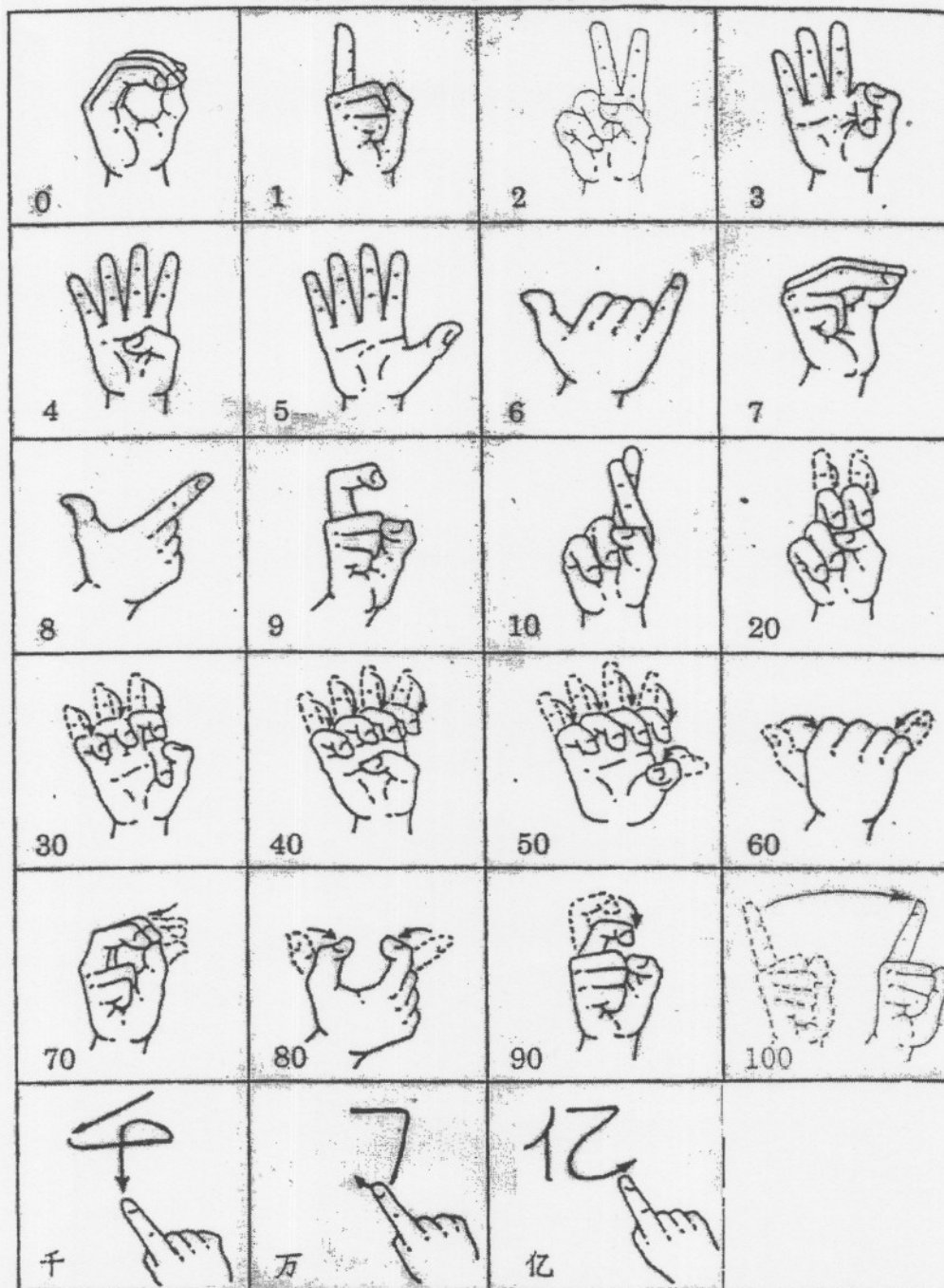


Source: China Deaf Assoc. (Ed.). (1989). *Zhongguo Shouyu* [Chinese Sign Language].

Beijing, China: Huaxia Press, p. xi.

## Appendix F Chinese Number Signs

## 中国手语数字手势动作图



Source: Dai, M. (1992). Duoguo Shouyu Shiduo [Collecting Sign Languages from Many Countries]. Shanghai, China: Shanghai Ed. Press. P. 505.