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ABSTRACT

In order to empirically examine the claim that sign language varieties in Hong Kong developed partially from sign language varieties in Shanghai, this paper examines the intuitive judgements of Hong kong signers about the similarities and difference in basic vocabulary items in sign language varieties in Shanghai and in Hong Kong. Specifically, the paper includes a discussion of the type of basic vocabulary to be compared, the data collected from Hong Kong and Shanghai sign language varieties, and an analysis of the intuitive judgement data of the Hong Kong signers. Findings are summarized and implications for further research are presented. (JL)

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Intuitive Judgments of Hong Kong Signers about the Relationship of Sign Language Varieties In Hong Kong and Shanghai[1]

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Abstract

It is generally believed that the origins of sign language varieties in Hong Kong can be traced to a small group of deaf people from Shanghai, Nanjing, and Hangzhou who established private tuition for deaf people in Hong Kong in 1949.

In order to empirically examine the claim that sign language varieties in Hong Kong developed partially from sign language varieties in Shanghai, this paper will examine the intuitive judgements of Hong Kong signers about the similarities and difference in basic vocabulary items in sign language varieties in Shanghai and in Hong Kong. Specifically, the paper will include a discussion of 1) the type of basic vocabulary to be compared, 2) the data collected from Hong Kong and Shanghai sign language varieties, and 3) an analysis of the intuitive judgement data of the Hong Kong signers. The conclusion summarizes the findings and discusses implications for future research.

Introduction

Historical-comparative research on sign languages in a given region must be done independently of any spoken languages in the same region, since the sign language situation in given countries may contrast sharply with the spoken language situation. For example, it is clear that (North) American Sign Language (ASL) is much more closely related to French Sign Language (Stokoe, Casterline, and Croneberg 1965; Woodward 1978) and to New Costa Rican Sign

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Language (Woodward 1992) than it is to British Sign Language.

Since sign language varieties in many countries have not been studied in depth, little is known about their historical origins. Hong Kong is a particular case in point. It is generally believed that the origins of sign language varieties in Hong Kong can be traced to a small group of deaf people from Shanghai, Nanjing, and Hangzhou who came to Hong Kong in 1949, established private tuition for deaf people in Hong Kong, and brought their sign language varieties to Hong Kong (Hong Kong Welfare Society for the Deaf 1987). It is also believed that Hong Kong signs are much more closely related to signs from Shanghai and Nanjing than they are to signs from Hangzhou (Hong Kong Welfare Society for the Deaf 1987).

To date, there have been no empirical studies that would confirm or refute this account of the development of sign language varieties in Hong Kong. However, it should be relatively easy to confirm or refute the account by empirically examining similarities and differences in basic vocabulary items across the sign language varieties in question. If sign language varieties in Hong Kong developed from sign language varieties in Shanghai, Nanjing, and to a lesser extent, Hangzhou within the last 44 years, basic vocabulary items in Hong Kong signing should be highly similar to basic vocabulary items in Shanghai, Nanjing, and/or Hangzhou varieties of signing and fluent users of sign language varieties in Hong Kong should be able to recognize these close similarities in basic vocabulary.

Presently, because available video-recorded sign language data in Hong Kong is limited to sign language varieties in Hong Kong and Shanghai, this paper will attempt only to determine the possible relationship between sign language varieties in Hong Kong and in Shanghai. In order to examine the claim that sign language varieties in Hong Kong developed from sign language varieties in Shanghai, this paper will examine the intuitive judgements of Hong Kong signers about the similarities in basic vocabulary items in sign language varieties in Shanghai and in Hong Kong. Specifically, the paper will include a discussion of 1) the type of basic vocabulary to be compared, 2) the data collected from Hong Kong and Shanghai sign language varieties, and 3) an analysis of the intuitive judgement data of the Hong Kong signers. The conclusion summarizes the

findings and discusses some implications for future research.

Basic Vocabulary to be Compared

Table 1 below lists the basic vocabulary that is used for comparing Shanghai and Hong Kong signs in this paper.

TABLE 1: SPECIAL VOCABULARY LIST FOR SIGN LANGUAGES

1.	all	26.	grass	51.	other	76.	warm
2.	animal	27.	green	52.	person	77.	water
3.	bad	28.	heavy	53.	play	78.	wet
4.	because	29.	how	54.	rain	79.	what
5.	bird	30.	hunt	55.	red	80.	when
6.	black	31.	husband	56.	right	81.	where
7.	blood	32.	ice	57.	river	82.	white
8.	child	33.	if	58.	rope	83.	who
9.	count	34.	kill	59.	salt	84.	wide
10.	day	35.	laugh	60.	sea	85.	wife
11.	die	36.	leaf	61.	sharp	86.	wind
12.	dirty	37.	lie	62.	short	87.	with
13.	dog	38.	live	63.	sing	88.	woman
14.	dry	39.	long	64.	sit	89.	wood
15.	dull	40.	louse	65.	smooth	90.	worm
16.	dust	41.	man	66.	snake	91.	year
17.	earth	42.	meat	67.	snow	92.	yellow
18.	egg	43.	mother	68.	stand	93.	full
19.	fat	44.	mountain	69.	star	94.	moon
20.	father	45.	name	70.	stone	95.	brother
21.	feather	46.	narrow	71.	sun	96.	cat
22.	fire	47.	new	72.	tail	97.	dance
23.	fish	48.	night	73.	thin	98.	pig
24.	flower	49.	not	74.	tree	99.	sister
25.	good	50.	old	75.	vomit	100.	work

While it is common to use the original 200 word Swadesh list to compare for cognates in basic vocabulary across spoken languages, it is not generally desirable to use the same list for sign language research. Use of the original 200 word Swadesh list in sign language research may result in slight overestimation of the relationship of closely related sign languages, moderate overestimation of the relationship of loosely related sign languages, and great overestimation of the relationship of historically unrelated sign languages (Woodward 1991). These overestimations are due to the fact that the original 200 word Swadesh list contains many items, such as body parts and pronouns, that are represented indexically in sign languages. The comparison of indexic signs results in a number of false potential cognates. To avoid this problem, I am using the special vocabulary list shown in Table 1 above. The modified list removes most of the potentially indexic signs from the original 200

word Swadesh list.

Data From Sign Language Varieties in Shanghai and Hong Kong

Sign language data from Shanghai were collected in the United States in the mid 1980's from two fluent users of Shanghai Sign Language. The two consultants were both born deaf in Shanghai, learned how to sign in Shanghai at an early age, and had been residents in Shanghai all of their lives. Both were dancers in a Shanghai dance company for deaf individuals and were on tour in the United States. Both consultants were in their early twenties; one was male and the other female.

Both consultants from Shanghai were given a written Chinese version of the basic vocabulary list in Table 1 above and simultaneously videotaped while signing the list. The Chinese version of the basic vocabulary list was done by a native speaker of Chinese in consultation with the author.

Sign language data from Hong Kong were collected in Hong Kong in 1992 from four fluent users of Hong Kong Sign Language. The four consultants were all born deaf in Hong Kong, learned how to sign in Hong Kong at an early age, and had been residents of Hong Kong all of their lives. Two consultants were teenage males, one was a female in her early twenties, and the fourth was a man in his early forties.

The four consultants from Hong Kong were given Chinese translations of the basic vocabulary list and were told that they would be shown a videotape of two Shanghai signers signing all the items on the list. The Hong Kong consultants were told to watch the videotape and to circle the Chinese translation of any Shanghai sign item that they thought was similar enough to Hong Kong signs to be understood by a Hong Kong signer. The consultants were allowed to see each sign as many times as they needed to make a decision. In fact, consultants only needed to watch the great majority of signs once.

Analysis of the Intuitive Judgement Data of Hong Kong Signers

Tables 2 to 5 record the responses of each of the four Hong Kong consultants. Items that were judged by the consultant to be similar are shaded; items that were judged by the consultant to be different are in normal print.

TABLE 2: RESPONSES OF CONSULTANT 1 (66% JUDGED SIMILAR)

1.	all	26.	grass	51.	other	76.	warm
2.	animal	27.	green	52.	person	77.	water
3.	bad	28.	heavy	53.	play	78.	wet
4.	because	29.	how	54.	rain	79.	what
5.	bird	30.	hunt	55.	red	80.	when
6.	black	31.	husband	56.	right	81.	where
7.	blood	32.	ice	57.	river	82.	white
8.	child	33.	if	58.	rope	83.	who
9.	count	34.	kill	59.	salt	84.	wide
10.	day	35.	laugh	60.	sea	85.	wife
11.	die	36.	leaf	61.	sharp	86.	wind
12.	dirty	37.	lie	62.	short	87.	with
13.	dog	38.	live	63.	sing	88.	woman
14.	dry	39.	long	64.	sit	89.	wood
15.	dull	40.	louse	65.	smooth	90.	worm
16.	dust	41.	man	66.	snake	91.	year
17.	earth	42.	meat	67.	snow	92.	yellow
18.	egg	43.	mother	68.	stand	93.	full
19.	fat	44.	mountain	69.	star	94.	moon
20.	father	45.	name	70.	stone	95.	brother
21.	feather	46.	narrow	71.	sun	96.	cat
22.	fire	47.	new	72.	tail	97.	dance
23.	fish	48.	night	73.	thin	98.	pig
24.	flower	49.	not	74.	tree	99.	sister
25.	good	50.	old	75.	vomit	100.	work

TABLE 3: RESPONSES OF CONSULTANT 2 (66% JUDGED SIMILAR)

1.	all	26.	grass	51.	other	76.	warm
2.	animal	27.	green	52.	person	77.	water
3.	bad	28.	heavy	53.	play	78.	wet
4.	because	29.	how	54.	rain	79.	what
5.	bird	30.	hunt	55.	red	80.	when
6.	black	31.	husband	56.	right	81.	where
7.	blood	32.	ice	57.	river	82.	white
8.	child	33.	if	58.	rope	83.	who
9.	count	34.	kill	59.	salt	84.	wide
10.	day	35.	laugh	60.	sea	85.	wife
11.	die	36.	leaf	61.	sharp	86.	wind
12.	dirty	37.	lie	62.	short	87.	with
13.	dog	38.	live	63.	sing	88.	woman
14.	dry	39.	long	64.	sit	89.	wood
15.	dull	40.	louse	65.	smooth	90.	worm
16.	dust	41.	man	66.	snake	91.	year
17.	earth	42.	meat	67.	snow	92.	yellow
18.	egg	43.	mother	68.	stand	93.	full
19.	fat	44.	mountain	69.	star	94.	moon
20.	father	45.	name	70.	stone	95.	brother
21.	feather	46.	narrow	71.	sun	96.	cat
22.	fire	47.	new	72.	tail	97.	dance
23.	fish	48.	night	73.	thin	98.	pig
24.	flower	49.	not	74.	tree	99.	sister
25.	good	50.	old	75.	vomit	100.	work

TABLE 4: RESPONSES OF CONSULTANT 3 (65% JUDGED SIMILAR)

1.	all	26.	grass	51.	other	76.	warm
2.	animal	27.	green	52.	person	77.	water
3.	bad	28.	heavy	53.	play	78.	wet
4.	because	29.	how	54.	rain	79.	what
5.	bird	30.	hunt	55.	red	80.	when
6.	black	31.	husband	56.	right	81.	where
7.	blood	32.	ice	57.	river	82.	white
8.	child	33.	if	58.	rope	83.	who
9.	count	34.	kill	59.	salt	84.	wide
10.	day	35.	laugh	60.	sea	85.	wife
11.	die	36.	leaf	61.	sharp	86.	wind
12.	dirty	37.	lie	62.	short	87.	with
13.	dog	38.	live	63.	sing	88.	woman
14.	dry	39.	long	64.	sit	89.	wood
15.	dull	40.	louse	65.	smooth	90.	worm
16.	dust	41.	man	66.	snake	91.	year
17.	earth	42.	meat	67.	snow	92.	yellow
18.	egg	43.	mother	68.	stand	93.	full
19.	fat	44.	mountain	69.	star	94.	moon
20.	father	45.	name	70.	stone	95.	brother
21.	feather	46.	narrow	71.	sun	96.	cat
22.	fire	47.	new	72.	tail	97.	dance
23.	fish	48.	night	73.	thin	98.	pig
24.	flower	49.	not	74.	tree	99.	sister
25.	good	50.	old	75.	vomit	100.	work

TABLE 5: RESPONSES OF CONSULTANT 4 (67% JUDGED SIMILAR)

1.	all	26.	grass	51.	other	76.	warm
2.	animal	27.	green	52.	person	77.	water
3.	bad	28.	heavy	53.	play	78.	wet
4.	because	29.	how	54.	rain	79.	what
5.	bird	30.	hunt	55.	red	80.	when
6.	black	31.	husband	56.	right	81.	where
7.	blood	32.	ice	57.	river	82.	white
8.	child	33.	if	58.	rope	83.	who
9.	count	34.	kill	59.	salt	84.	wide
10.	day	35.	laugh	60.	sea	85.	wife
11.	die	36.	leaf	61.	sharp	86.	wind
12.	dirty	37.	lie	62.	short	87.	with
13.	dog	38.	live	63.	sing	88.	woman
14.	dry	39.	long	64.	sit	89.	wood
15.	dull	40.	louse	65.	smooth	90.	worm
16.	dust	41.	man	66.	snake	91.	year
17.	earth	42.	meat	67.	snow	92.	yellow
18.	egg	43.	mother	68.	stand	93.	full
19.	fat	44.	mountain	69.	star	94.	moon
20.	father	45.	name	70.	stone	95.	brother
21.	feather	46.	narrow	71.	sun	96.	cat
22.	fire	47.	new	72.	tail	97.	dance
23.	fish	48.	night	73.	thin	98.	pig
24.	flower	49.	not	74.	tree	99.	sister
25.	good	50.	old	75.	vomit	100.	work

All four Hong Kong signers were remarkably similar in their evaluations of the Shanghai signs. Percentages of signs judged similar varied by only two percent, from 66% to 68% similar. In addition, the four consultants independently agreed on 96 out of the

total of 100 signs. The four signs where judgements varied are: "louse", "person", "salt", and "tail". Three of the four signers said the Shanghai signs for "louse" and "person" were similar to the Hong Kong signs; two of the four signers stated that the Shanghai for "tail" was similar to the Hong Kong sign, and one person believed that the Shanghai and Hong Kong signs for "salt" were similar.

Summary and Conclusion

The data from the intuitive judgements of the four Hong Kong signers would indicate that Hong Kong signs show a close relationship to Shanghai signs. However, the data also suggest that while Hong Kong signs were heavily influenced by Shanghai signs, Hong Kong signs that are used today do not derive solely from Shanghai signs, but probably result from a mixture of Shanghai signs with other sign varieties. There are three major reasons for proposing a hypothesis of language mixture.

First, it is important to note that basic sign language vocabulary does not change appreciably faster than spoke languages. Gejl'man (1957) found a 97.5% rate of similarity in basic Russian Sign Language vocabulary in the 1950's as compared with Russian Sign Language vocabulary in an 1835 dictionary. Similarly, Woodward (1978) found a 99% rate of similarity in basic American Sign Language vocabulary in 1978 as compared with American Sign Language vocabulary in a 1913 dictionary. In such cases of closely related sign vocabulary, fluent signers are easily able to recognize all similarities in basic sign vocabulary.

Secondly, the percentages of similarity in basic vocabulary between Shanghai and Hong Kong signs (between 66% to 68%) show strong parallels to other sign languages where there is historical evidence of language mixture. American Sign Language which resulted from the mixture of French Sign Language and indigenous varieties of sign language in the United States circa 1817 (Woodward 1978, Groce 1985) has a 61% rate of cognates in basic vocabulary with French Sign Language (Woodward 1978). New Costa Rican Sign Language (used by signers under the age of 30 in San Jose, Costa Rica) developed within the last thirty years because of a mixture of American Sign Language and older indigenous forms of sign language in Costa Rica has a 63% rate of cognates with

American Sign Language (Woodward 1992).

Thirdly, there is evidence that language mixing often occurs at a very rapid rate. Once the abrupt restructuring is completed, normal internal change begins to happen at the "normal" rate. Examples of this can be found with New Costa Rican Sign Language and American Sign Language. As mentioned earlier, when comparing Costa Rican signs used by people under the age of 30 with signs used by signers in the United States, the rate of cognates in basic vocabulary is 63%. When comparing Costa Rican signs used by Costa Rican signers under the age of 30 with signs used by Costa Rican signers over the age of 30, there is only a 42% rate of cognates. More than half the vocabulary shifted within one generation. Comparative studies of American Sign Language and French Sign Language also point out that most of the shifts in basic vocabulary in American Sign Language occurred within 18 to 52 years after French Sign Language was brought to the United States. The relatively short time separation of Shanghai and Hong Kong signs (roughly years) suggests that a similar abrupt mixture of Shanghai signs with other forms of signing could have taken place.

While the results of the research reported in this paper strongly suggest 1) a strong historical relationship between Hong Kong signs and Shanghai signs and 2) language mixture of several sign language varieties as a basis for the development of modern Hong Kong signs, the complete picture of the historical development of sign language varieties in Hong Kong is still lacking. For example, we do not know for sure what other sign language varieties may have played a role in the language mixture that resulted in the development of modern Hong Kong signs. Given generally accepted beliefs about the origins of Hong Kong signs, it is reasonable to assume that sign language varieties in Hong Kong will also show similarities to Nanjing and Hangzhou varieties of signing. However, given historical-comparative research on other sign languages, there may have been other sign language varieties involved in the development of modern Hong Kong signs.

Sociolinguistically, it is somewhat unrealistic to expect that deaf people in Hong Kong, would not have developed local forms of signing. In many parts of the world without formal educational systems for deaf individuals (including highly isolated areas), spontaneous development of indigenous sign languages have occurred.

Some of these places include: pre-1817 United States (Groce 1985); Adamorobe, Ghana (Frishberg 1978, 1987); Yucatan, Mexico (Johnson 1991), Rennell Island (Kuschel 1973), and Providence Island (Washabaugh, Woodward, and De Santis 1978, Woodward 1982), among others.

Such indigenous sign language varieties are easily changed when the imposition of a foreign or outside sign language with educational prestige is imposed for educational purposes. This is especially true when the society views deafness as a handicap or disability rather than as a linguistic difference. Thus, the role of older indigenous forms of signing in the development of a modern sign language is easily and quickly forgotten or sometimes never known and has to be rediscovered through careful comparative linguistic analysis and reconstruction. Such is clearly the case with American Sign Language in the United States. Until the 1970's, the traditional view was that American Sign Language resulted solely from the introduction of French Sign Language to the United States by Laurent Clerc, a French deaf man, who along with T.H. Gallaudet established the first public school for deaf children in the United States in 1817. It was not until 1978, that a formal linguistic comparison of French and American signs suggested earlier forms of indigenous signing in the United States (Woodward 1978). In 1980, historical research confirmed the existence of indigenous forms of signing as early as 1714, more than 100 years before the arrival of French Sign Language in the United States (Groce 1985).

It is not unreasonable to posit a similar scenario for the development of modern varieties of Hong Kong signs. However, it must be stressed that much more comparative linguistic research is needed, not only in Hong Kong but also in various parts of China to confirm or deny the actual existence of signing in Hong Kong prior to the arrival of signs from Shanghai and probably from Nanjing and Hangzhou in 1949.

Such comparative research will require a great deal of time and effort, and ideally such comparative research needs the efforts of a group of linguists with various skills. Unfortunately, until such research is completed, all of us in Hong Kong will have an incomplete understanding of the history of a valuable local heritage, the sign language varieties of Hong Kong.

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