

Signed Names in Japanese Sign Language: Linguistic and Cultural Analyses

Angela Nonaka, Kate Mesh, and Keiko Sagara

Pre-print copy; final draft post-refereeing

This article describes the types of signed names given and used by deaf users of Japanese Sign Language. Drawing from a dataset of 216 signed names, we identify and describe nine strategies for signed name-formation. Notably, seven of these represent written Japanese surnames. We explain how language contact with written Japanese characters (kanji) and syllabograms (kana) gives rise to a distinctive set of naming strategies. We further discuss the culture of literacy in Japan that emphasizes the written forms of surnames and consider its influential role in Japanese deaf education when sustained contact between many deaf people made naming a central concern.

This article describes the naming or onomastic system of Japanese Sign Language (JSL), a natural language, distinct from spoken Japanese, used by more than sixty thousand deaf people and their hearing cosigners in Japan (Ishida 2001). Like members of all linguistic communities, users of JSL refer to themselves and to each other by name. Deaf JSL signers typically have at least one signed name and may have nicknames for use in informal contexts. With few exceptions (typically, nicknames), JSL signed names represent the bearer's surname, reflecting the emphasis on family names as the primary terms of reference in Japan (Gaudart 1999). Notably, JSL signed names depict the written form of the bearer's surname, a fact, we maintain, that is the product of a literacy culture dating to the Meiji period in Japan and pervasive in the Japanese educational system, including deaf education.

A growing body of research considers the linguistic structure of JSL (see, among others, Peng 1974; Osugi and Supalla 1998; Fukuda et al. 1999; Torigoe and Takei 2001; Morgan 2006, 2008; Fischer 2008; Fischer and Gong 2010; Mori 2010; Sagara and Yang 2013) and the culture and discourse strategies of its users, both deaf and hearing (Nakamura 1995, 2006; Nonaka 1997; George 2011). Another line of research is dedicated to developing sign language recognition technology (Sagawa and Takeuchi 2000a, 2000b, 2002; Xu et al. 2000), with applications for JSL teaching, interpreting, and linguistic analysis (Tokuda and Okumura 1998; Hirohiko and Takeuchi 2002; Koizumi, Sagawa, and Takeuchi 2002). While these two research fields have significantly expanded the description of JSL, neither has taken into consideration the onomastic system of the language.

A broad description of JSL signed names has been provided in some educational materials designed for second language acquisition. *Minna No Shuwa* (みんなの手話) (Japan Broadcasting Corporation 1990), *Everyone's Sign Language*, and *Shuwa Kyoushitsu* (手話教室) (Japanese Federation of the Deaf 1984), *Sign Language Classroom*, are textbook and video short courses for second-language learners of JSL. *Minna No Shuwa* identifies three bases for JSL signed names: (1) *kanji kara narumono* (漢字からなるもの) “things derived from kanji characters,” (2) *rekishi jou no jimbutsu kara totta mono* (歴史上の人物からとったもの) “things taken from historical figures,” and (3) *yubi moji ya kuusho de hyougen suru mono* (指文字や空書で表現するもの) “things expressed through fingerspelling or writing in the air.” *Shuwa Kyoushitsu* lists six ways to derive signed names in JSL: (1) *moji kuusho hikki* (文字空書筆記) “characters,” (2) *yubi moji* (指文字) “fingerspelling,” (3) *kanji no katachi yori hyougen shita shuwa no kumiawase* (漢字の形より表現した手話の組み合わせ) “combinations

of signs that express the shape of *kanji*,” (4) *douon igo no shuwa ni yori arawasu* (同音異語の手話により表わす) “sign language expression of a homophone,” (5) *nikkuneimu* (ニックネーム), a borrowed English word, “nicknames,” and (6) *ichi kara go no kumiawase* (1~5 の組合わせ) “combinations of #1-5.”

While both sources identify at least some of the ways in which JSL signed names are derived, neither provides an in-depth description or analysis of the language’s onomastic system of the sort provided here. In collecting and analyzing a set of more than two hundred JSL signed names, we aimed to expand on the prior description of the JSL onomastic system by providing a detailed account of the strategies for signed-name formation in the language and discussing the relative frequency of each strategy.

Methods and Analysis

Dataset

A set of 216 JSL signed names was compiled from four sources:

<NL>

- (1) video-recorded self-introductions of deaf JSL signers from the Kansai region of Japan in the JSL video curriculum *Minna No Shuwa* (みんなの手話), *Everyone’s Sign Language*, released in 1990.
- (2) video-recorded sociolinguistic interviews between the first author and deaf and hearing JSL signers, conducted in the Kansai region of Japan in 1993 as part of an investigation of social interaction in deaf communities.
- (3) video-recorded demonstrations of signed names by the third author: a deaf, fluent JSL signer living in the Kantou region of Japan, and a research consultant to the first author at the time

of recording in 1997. All signed names demonstrated were those of signing acquaintances of the third author.

(4) video-recorded demonstrations of ninety-seven signed names, accessed in 2013 on the website of Shikaku “Vision,” a deaf social organization based in the Kantou region of Japan (Shikaku 2014).

All signed names in data sources (1), (2), and (3) were gathered directly from the bearers of the names or from an individual personally acquainted with those persons. The Shikaku organization does not make a similar claim for data source (4), although the individuals submitting videos are members of the JSL-signing community. We elected to include data from the Shikaku website because it was an independent source of signed names collected more than twenty years after the data collection from sources (1), (2), and (3). A nearly identical set of strategies for signed-name formation was evident in each contributing dataset, revealing the stability of the JSL signed name system over time and across geographic regions in Japan.

Some signed names in the four data sources referred to individuals with the same written surname, an unsurprising occurrence since the one hundred most common surnames in Japan belong to 33 percent of the Japanese population (Meiji Yasuda Life Insurance 2008). When immediate family members sharing a surname had the same signed name, we excluded all but one token from the dataset. However, if unrelated individuals sharing a surname reported identical signed names, all of these were included in the aggregated dataset. This approach allowed our dataset to reflect the frequency of signed name-formation strategies between, but not within, individual families, minimizing skew from any familially idiosyncratic naming decisions.

Names were excluded from the dataset for two other reasons. Entirely fingerspelled versions of surnames (of which there were only six) were treated as a naming phenomenon

separate from signed-name formation and accordingly excluded. Names that the Shikaku organization identified as place names and did not also categorize as surnames were excluded.

A notable feature of the videos collected from all four sources is the co-occurrence of mouthing during the articulation of the manual signed name: Typically the signer produces a mouthed form of the referent's spoken-language surname while producing the person's signed name. All images of signed names provided in this article accordingly feature mouth configurations—the configuration pictured is the one performed by the signer when the still image was captured and is one of multiple configurations produced during the pronunciation of a spoken-language name.

Analysis

On examining the JSL signed names in the dataset, we observed that nearly all were composed of several signs. In the majority of cases, the number of component signs in a JSL signed name was equivalent to that of kanji characters in the bearer's written Japanese surname. This one-to-one correspondence was not coincidental: Each sign was in some way representative of a character to which it corresponded. We further observed that this sign-to-character mapping was systematic: In all but six cases, unrelated individuals with identical written surnames had the same sign-to-character mappings in their signed names.

A first step in the analysis was to determine how often these mappings took place in the dataset. To answer this question, we isolated each component sign in a JSL signed name, finding a total of 421 signs. We asked whether each sign represented a kanji character in the corresponding written name or identified the name bearer in some other way and coded the signs accordingly. When we saw some association with a character in the bearer's surname, we then

asked what feature of the character the sign represented. We found that a character’s meaning, shape, or associated pronunciation(s) in spoken Japanese could be represented by a sign and coded all instances of these categories of representation. Finally, within each category we considered exactly how representation took place—that is, which mechanisms were used to convey the meaning, shape, or sound of characters. We identified a total of six methods of kanji character representation, which we discuss at length later in the article.

Using this methodology, we identified and coded a total of nine JSL signed name–formation strategies. In the following section we provide a chart showing these strategies and the frequency of each one in the dataset. We follow the chart with a discussion of each of the strategies, providing examples from the dataset.

Results

Our analysis identified a total of nine JSL signed name–formation strategies. Of these, two made exclusive reference to an individual’s physical traits or personal characteristics, while seven represented kanji characters in written Japanese surnames, either with or without descriptive elements.

<<Table 1 : Strategies for Signed-Name Formation in JSL>>

Descriptive Signed Names

We begin with the one signed name–formation phenomenon in JSL that in no way interacts with written Japanese: wholly descriptive signed names. As first discussed by Samuel Supalla in his account of American Sign Language signed names, this type of name describes “a person’s

physical characteristics or behavior” (Supalla 1990, 101) and bears no relation to the person’s spoken-language name as it is pronounced or written. Since Supalla’s original work on descriptive signed names, this type of signed name–formation strategy has been found in every documented signed language onomastic system.¹

Two types of descriptive signed names are present in JSL: One describes a salient attribute of the individual named, while the second links the name bearer to a historical figure who shares the same surname by describing an attribute associated with the historical figure in the public imagination. We briefly discuss both strategies.

Descriptions of the Name Bearers’ Characteristics (3 Percent of the Dataset)

A signed name from our dataset that straightforwardly describes an attribute of the name bearer is MANGA, the name for a man who as a child was an avid reader of manga, or comic books.

<<Figure 1. The descriptive JSL signed name MANGA.>>

The signed name MANGA is completely unrelated to the meaning and pronunciation of the bearer’s family name, Itou, written with the kanji characters *i* 伊 “that” and *tou* 藤 “wisteria.”

A total of six signed names in the dataset describe certain features of their bearers and have no relation to written names. Some names, like MANGA and SHAPE-OF-LETTER-P (representing the field of physics), refer to activities associated with the bearers, while others, like LONG-TORSO-SHORT-LEGS, refer to the bearers’ physical features. Of these six descriptive signed names, five were acknowledged to be names used only among intimates of the bearers,

while in public these individuals used signed names that represented written kanji. Notably, MANGA was the only instance of a descriptive signed name used as the bearer's primary name.

Descriptions of Historical Figures' Characteristics (1 Percent of the Dataset)

An additional three descriptive signed names in the dataset exemplified a phenomenon that the *Minna No Shuwa* curriculum labels *rekishi jyou no jinbutsu* (歴史上の人物), or “famous historical figure” signs (Japanese National Broadcasting Corporation 1990, 7). These signed names describe the physical traits or characteristic behaviors of celebrated Japanese historical figures and are given to deaf individuals whose Japanese surnames are written and pronounced in the same way as the name of the historical figure. An example from the dataset is the signed name THRUSTING-SPEAR, used by an individual surnamed Katou. The signed name makes reference to a characteristic behavior of Katou Kiyomasa (加藤清正), a famous warrior of the Sengoku period (1562–1611).

<<Figure 2. THRUSTING-SPEAR, signed name used by an individual surnamed Katou 加藤.>>

THRUSTING-SPEAR describes a behavior that has become associated in the public imagination with Katou Kiyomasa because of his heroic spearsmanship in the battle of Shizugatake in 1583 (Elison 1983, 168). Two-hundred eighty years after the battle, the artist Yoshitoshi created a woodblock print depicting Katou in full military regalia holding a spear. This and similar images are available to people throughout Japan.

<<Figure 3. Woodblock Image of Katou Kiyomasa by the artist Yoshitoshi (printed with permission from the Worcester Art Museum, Worcester, MA).>>

That deaf individuals with an identical surname “inherit” a descriptive signed name referring to the famed spearsman is comparable to other signed-name inheritance patterns in which a signed name becomes associated with a particular spoken-language name and is passed on to other deaf individuals with the same name. Such signed name–inheritance patterns are attested in British Sign Language (Day and Sutton-Spence 2010), Estonian Sign Language (Paales 2011), and New Zealand Sign Language (Locker McKee and McKee 2000).

Of the two additional signed names of historical figures in the dataset, one refers to a particular behavior by the person, and the other to the individual’s physical appearance. The name FIELD-SWORD is used by individuals surnamed Saskaki (佐々木) and refers to the *nodachi* or field sword of Sasaki Kojirou, a seventeenth-century master swordsman. The signed name CHIN-STRIP is used by individuals surnamed Saitou (齋藤) and refers to the beard associated with Saitou Dosan, a Samurai warrior of the sixteenth century.

Representational Signed Names

The vast majority signed names in the dataset—207 of 216 total names—were in some way associated with written Japanese surnames. This association could be established on a sign-by-sign basis since each sign in a single- or multisign name could be shown to map to a kanji character in the name bearer’s written surname. In some cases, a sign corresponded to a character by directly translating its meaning; in other cases, the sign referenced the shape of an associated character or its pronunciation. In the description to follow, we refer to this relationship between

sign and character as the sign's representing the character and call the class of signed names produced via this mechanism "representational" signed names. We identified a total of seven strategies for producing a representational signed name.

While we discuss each of the seven representational strategies individually in the following section, it is important to note that in many cases a number of strategies were employed to map each of several signs to discrete kanji characters (figure 4). It is therefore accurate to describe strategies 3–9 as ones used to form signed-name *components*. For the sake of clarity and concision, we refer to all nine strategies simply as signed name–formation strategies.

<<Figure 4. Japanese surname Arai (新井) and corresponding JSL signed name.>>

The Japanese writing system figures crucially into the discussion of JSL representational signed-name formation. We do not assume on the part of the reader any familiarity with this system and therefore begin with a brief introduction to the two elements of Japanese orthography: kanji characters and the kana syllabaries.

Kanji Characters

Most Japanese writing is performed with kanji characters—symbols with sound and meaning associations developed over the course of millennia, first in China and subsequently in Japan. The characters originated in ancient China as logographs: symbols that represented individual morphemes without making reference to speech sounds. For thousands of years the number of Chinese characters proliferated, and each character came to represent not only multiple spoken-language instantiations of its associated morpheme but also the sounds of these spoken forms;

that is, every character developed several Chinese language–based morphophonemic associations. Many characters transformed from whole-word representations to “word building units” (Yamada 1983, 141) that obligatorily combined with other characters.

Kanji characters were adopted into the Japanese writing system during or before the sixth century AD (Frellesvig 2010) and were used individually and in compound to represent not only Chinese loanwords but also native Japanese words. Again, various morphophonemic associations—this time from Japanese—developed for each kanji character. Today, most of the approximately two thousand foundational kanji characters taught in Japanese schools (from an inventory of more than fifty thousand characters) have morphophonemic associations with at least one Chinese word (traditionally called the “on” readings of the kanji character) and at least one Japanese word (traditionally, the “kun” readings of the character). The reading of a kanji character is typically made clear by structural and/or discourse context. See figure 5 for an example of two readings available for a single kanji character.

<<Figure 5. Two readings of the kanji character 本.>>

All Japanese surnames and most given names are written using kanji characters (Yamada 1983). For this reason, language contact between the onomastic systems of Japanese and JSL chiefly involves signed representation of the meaning, shape, or pronunciation(s) of kanji characters.

Kana Syllabary

The second orthographic system used in Japan is kana: a set of symbols that represent meaningless syllabic units rather than meaningful morphophonemes. The term “kana” is used to

refer to all syllabic characters in Japan, whether they are part of the katakana or hiragana scripts—two systems for representing the same sounds that are distinguished by their context of use. While the entire Japanese language could be written using kana, the system is typically used to support the reading of kanji, as when hiragana are employed to append inflectional endings to kanji characters and to insert grammatical particles, or when katakana are used to phonetically represent non-Chinese loanwords (Haruo 1983, 131).

Language contact between written Japanese and JSL has resulted in the development of a fingerspelled syllabary called yubi moji (指文字). Handshapes in the yubi moji system represent neither katakana nor hiragana symbols; rather, they correspond directly to the syllable sounds that the two scripts represent. Yubi moji might therefore be aptly described as a third kana syllabary, this one in the manual-visual modality.

Some JSL signs incorporate yubi moji fingerspelling to represent all or part of a spoken Japanese word. Like the other kana scripts, yubi moji can be used to identify the intended “reading,” or pronunciation, of a kanji character when context is insufficient to disambiguate between possible interpretations. This is especially common when discussing names since the same kanji character or character compound may correspond to several phonetically distinct readings. During jiko shoukai (自己紹介) “self-introductions,” Japanese deaf people both introduce themselves using their signed name and indicate the pronunciation of the name using yubi moji fingerspelling.

Descriptive Initialized Names (Less than 1 Percent of the Dataset)

In one case in the dataset, a descriptive name was produced in a manner that also represented the referent’s spoken-language name. The name incorporated a handshape from the yubi moji

(fingerspelling) system that corresponds to the first syllable of the name bearer’s spoken-language name. In this case, the handshape in question represents the initial syllable *a*, あ, from the spoken Japanese name Arai (新井). The handshape representing the syllable is articulated with the back of the hand touching the signer’s forehead, evoking the bandana characteristically worn across the forehead by the name bearer. The incorporation of a character from the yubi moji manual syllabary is comparable to “initialization” processes in other signed languages, which incorporate a letter from the language’s fingerspelled alphabet into the articulation of a sign, often to reference a spoken-language translation of the signed word (Sutton-Spence and Woll 1993; Machabée 1995; Padden 1998; Padden and Gunsauls 2003).

<<Figure 6. A-BANDANA, a descriptive initialized signed name.>>

Loan Translations (60 Percent of the Dataset)

By far the most common strategy for representing a written name in the dataset was simply to translate the Japanese words signified by component kanji characters into JSL. A representative example is a signed name corresponding to the Japanese name Takakusa, composed of the kanji characters *taka* (高) “high” and *kusa* (草) “grass.” The Japanese words corresponding to the kanji characters are translated to their equivalent JSL signs—HIGH and GRASS—to produce a signed name.

<<Figure 7. HIGH-GRASS, a translation of the Japanese words *taka* (高) and *kusa* (草) into JSL.>>

A second example is the JSL name of an individual with the Japanese surname Hara (原). The name is written with a single kanji character *hara* (原) “plain, field.” The Japanese word represented by the character is translated to JSL FIELD.

<<Figure 8. The JSL FIELD, a translation of the Japanese word *hara* (原).>>

As we will show, loan translation is only one means of representing the kanji character that occurs in the name Hara. The following description of homonymic loan translation will reveal that there is some room for creativity even within the conventionalized approaches to representational signed-name formation.

Homonymic Loan Translations (4 Percent of the Dataset)

Representational signed names in the dataset are sometimes formed using a more playful strategy: homonymic loan translation. Here the Japanese word translated into JSL does not map directly to a character in the corresponding written surname. Rather, the translated word is a homonym of a word written with the relevant character. An example is the signed name for a second individual with the Japanese surname Hara (原). While the name is written with a kanji character meaning “plain” or “field,” a second Japanese word pronounced “hara” also exists, this one meaning “belly” and corresponding to an entirely separate kanji character, 腹. To produce a playful pun using homonymic loan translation, the homonym meaning “belly” is translated as JSL BELLY.

<<Figure 9. JSL BELLY, a translation of the Japanese word *hara* (腹) “belly” and a homonym of the word *hara* “plain, field.”>>

A homonymic loan translation can also be produced by reanalyzing the word boundary in the pronunciation of *kanji* characters, as in the following example. The Japanese name Kajikura is written with three *kanji* characters: *ka* (鍛) “silver,” *ji* (治) “smith,” and *kura* (倉) “warehouse/building.” A reanalysis of the pronunciation joins the sounds *ka* and *ji*, forming a compound that maps to an entirely separate set of *kanji* characters with the meaning “fire”: 火事. The reanalyzed word *kaji* is translated from Japanese as JSL FIRE. The final component of the spoken name *kura* is translated to JSL BUILDING. Thus a compound signed name is formed by two signs: the first, a homonymic substitution with word boundary reanalysis, and the second, a simple loan translation.

<<Figure 10. FIRE-BUILDING, a homonymic loan translation via word boundary reanalysis and simple loan translation from the Japanese surname Kajikura (鍛治倉).>>

Kana Representation: Initialization (Less than 1 Percent of the Dataset).

In some cases, loan translations—either direct or homonymic—are produced with an additional feature: a handshape incorporated from the *yubi moji* (fingerspelling) system that corresponds to the first syllable of the Japanese word being translated. The signed name Kajikura, used to exemplify the phenomenon of homonymic substitution in the foregoing discussion, also provides an example of initialization from the dataset. The first sign in this name—JSL FIRE—is optionally initialized, that is, produced with the handshape of the *yubi moji* character *ka* (カ)

incorporated into the articulation of FIRE. While figure 10 shows a plain version of the name, in which FIRE is signed without initialization, figure 11 shows the initialized signed name, in which FIRE is signed with the *ka* handshape.

<<Figure 11. Initialized FIRE-BUILDING, corresponding to the Japanese surname Kajikura (鍛冶倉), where FIRE is articulated with the handshape of the yubi moji syllable *ka*.>>

Kanji Representation: Character Signs (25 Percent of the Dataset)

The second most common method of representing kanji in the dataset was to use signs that represent the shape of a kanji character on the hands. Such “character signs” are found not only in JSL but also in other signed languages in contact with Chinese-based writing systems, including Chinese Sign Language (Yau 1977), Hong Kong Sign Language (Tang 2007), and Taiwan Sign Language (Smith and Ting 1979; Ann 1998; Chen 2007). The constraints governing the well-formedness of character signs may vary across these languages (Ann 1998), but all documented character signs exploit the shape of the human hand and the configurations it can assume to iconically represent whole Chinese(-based) characters or recognizable portions of characters.

The use of character signs to form a JSL signed name is exemplified in the case of an individual whose Japanese surname, Sankoda, is composed of the kanji characters *san* (三) “three,” *ko* (小) “small,” and *ta* (pronounced “da” in this phonetic context) (田) “rice paddy.” This individual’s JSL signed name is a set of three corresponding character signs (figure 12).

<<Figure 12. A signed name composed of character signs representing the *kanji* characters *san* (三), *ko* (小), and *da* (田).>>

For a second example of the use of character signs in representational signed names, consider the name of an individual whose Japanese surname, Nakagawa, is written with the characters *naka* (中) “middle” and *kawa* (川) “river.”

<<Figure 13. A signed name composed of character signs representing the kanji characters *naka* (中) and *kawa* (川).>>

Kana Representation: Fingerspelling (8 Percent of the Dataset)

In aggregating our dataset, we excluded the few examples of names produced entirely by fingerspelling. While we believe fingerspelling an entire name to be a process of self-identification for JSL signers, we follow the intuitions of the third author and classify this process as one that falls outside the domain of signed-name formation in the language.

Fingerspelling therefore remained in our dataset only in those instances in which representational signed names were formed using a variety of methods.

For an example of fingerspelling as a component of a signed name, consider the name of an individual surnamed Tatsumi (辰巳). The Japanese name is produced using kanji characters referring to two members of the Japanese Zodiac: *tatsu* (辰) “the dragon” and *mi* (巳) “the snake.” A signed name corresponding to the written surname is produced by translating the first character as JSL DRAGON and fingerspelling the remaining syllable in the pronunciation of the name.

<<Figure 14. DRAGON-MI, a signed name incorporating both a loan translation and a fingerspelling to represent the Japanese name Tatsumi (辰巳).>>

A second example of a fingerspelled component of a representational signed name comes from the name corresponding to the Japanese surname Nakano, which is written with the characters *naka* (中) “middle” and *no* (野) “meadow.” The first kanji character in the surname is represented by a character sign, while the pronunciation of the second character is indicated by fingerspelling.

<<Figure 15. A signed name incorporating a character sign and a fingerspelling to represent the Japanese name Nakano (中野).>>

In these and all other names in our dataset containing fingerspelling, no features of handshape, movement, palm orientation, or location of the fingerspelled items were altered. That is, we found no evidence of lexicalization processes affecting the articulation of yubi moji in these cases (Battison 1978; Valli 2000).

Kanji Representation: Air-Drawing (Less than 1 Percent of the Dataset)

A single signed name in the dataset had a component produced using *kuusho* (空書) “air drawing.” Representing the shape of a character by drawing it in the air is a familiar practice in Japanese classrooms (hearing and deaf), where it is used to practice the writing of characters. Among its many pedagogical benefits, *kuusho* reinforces the writing of kanji using correct stroke order.²

The Japanese surname Nyuuta (入田) is written with two kanji characters, *nyuu* (入) “enter” and *ta* (田) “rice paddy.” In one instance in the dataset, an individual with this surname formed her signed name using two character signs (figure 16). Some associates of this individual, however, produced the first kanji character in her written surname by air-drawing it (figure 17).

<<Figure 16. A signed name using two character signs to represent the characters in the surname Nyuuta (入田.>>

<<Figure 17. Air-drawing a signed name (produced from the signer’s perspective) and a character sign to represent the characters in the surname Nyuuta (入田.>>

Although air-drawing is discussed as a signed name–formation strategy in the description provided by the *shuwa kyoushitsu* (手話教室) “sign language classroom” curriculum, it occurs just once in our dataset, as part of a name ascribed by associates to an individual but not used by the individual herself. It seems that this is not a robust signed name–formation strategy at present among users of JSL.

Discussion: Origins of the JSL Onomastic System

The preceding discussion outlined nine formation strategies for producing signed names in Japanese Sign Language. Unsurprisingly, these strategies included the use of descriptors for names, a phenomenon attested in all documented signed naming systems. Notably, while descriptive signed names occur in JSL, our data revealed that they are not the dominant naming strategy: Instead, the majority of JSL name signs are representative of the meaning, sound, or

shape of the bearer's spoken or written Japanese surname. This pattern is striking when compared to the onomastic systems of other sign languages and raises interesting questions regarding the strong emphasis on representing surnames and in particular their written forms. The answers may be traced back to the history of the Japanese deaf social experience vis-à-vis the establishment of formal deaf education within the context of Japanese culture.

Deaf education began in Japan during the Meiji era (1868–1912), a period of dramatic modernization undertaken as part of *bunmei kaika* (文明開化) “civilization and enlightenment.” The *bunmei kaika* movement was closely tied, ideologically and practically, to Japan's transformation from a feudal society to a modern nation-state. As in many other countries, public education—including special education for deaf students as well as blind students—was considered part and parcel of modernization and establishment of the new nation-state (Tokyo Blind and Dumb School 1893; Nakamura 2006).

Modern schools in any country are typically eager to foster literacy, and students learn to read and write their names during their very first lessons. Japanese schools established during the *bunmei kaika* movement were no exception, and the names emphasized in lessons were the family names or surnames of students—a reflection of the fact that, except among intimates (e.g., close family members and friends), strong cultural emphasis is placed on surnames in Japan (Gaudart 1999). As Plutschow (1995) explains in *Japan's Name Culture: The Significance of Names in a Religious, Political, and Social Context*, names in Japan (and surnames in particular) have long been “identifiers, signs of social and political belonging. . . . The absence of a name usually located a person at the periphery of society” (203–204). Early deaf education, according to Obata (1985), emphasized literacy, and entire lessons were dedicated to the “pronunciation of words, dictation, discourse training, spelling and writing, and composition,” as well as to

geography and mathematics (para. 12, translated from Japanese).³ In such a historical and sociocultural context, especially at schools for deaf students, where administration and instruction were overseen by hearing Japanese people, it is likely that great emphasis was placed not only on identification with one's Japanese surname but also on learning its written form and the meaning and sound associated with that form.

As mentioned earlier, the character-based writing system central to Japan's literacy culture is notable for the fact that both morphological and phonemic features are simultaneously represented in each kanji character. Thus, phonetic, semantic, and orthographic features of kanji characters—or some combination thereof—were available to be borrowed into JSL at precisely the point when systematic and sustained interaction in deaf education programs introduced the need to individuate people using a conventionalized naming system. The strategies for representing a spoken or written Japanese surname in JSL that we describe here are doubtless the product of contact between Japanese and JSL during this period. For this reason, studying the various strategies used for signed-name formation in Japan today not only gives us an understanding of naming practices in a contemporary context but also provides a window onto Japanese deaf history.

Acknowledgements

We are grateful to the following individuals for their kind assistance with various phases of the project: Richard Meier, Jean Ann, Midori Tanaka, Chiho Sunakawa-Inoue, Tomoko Traphagan, Kaori Kitta, Junko Takeuchi, Akemi Bond, Kelly Stack, Akira Yamamoto, Noriko Inokuchi, James C. Woodward, Pam Munro, Keith Murphy, and Merav Shoheit. Funding for this study was generously provided by the Japanese Ministry of Education; the National Science Foundation;

the Harvard-Yenching Library; Ratchasuda College, Mahidol University at Salaya; the Ratchasuda Foundation; and Sign Language Research, Inc. We also thank the following organizations for helping bring this project to fruition: the Worcester Art Museum; the Japanese Federation of the Deaf; the Kansai Chapter of the Japanese Federation of the Deaf; and the students and faculty at Tsukuba College of Technology. We are grateful to the members of the Shikaku organization for deaf people for making information about signed names publically available on its website.

Table 1. <TT>Strategies for Signed-Name Formation in JSL

Strategy	Number of Signs	Percentage of Total Signs in Dataset
descriptions of name bearers	6	3%
descriptions of historical figures' characteristics	3	1%
descriptive initialized names	1	< 1%
loan translations	248	60%
kanji representation: character signs	103	25%
homonymic loan translations	16	4%
kana representation: fingerspelling	35	8%
kana representation: initialization	2	< 1%
kanji representation: air drawing	1	< 1%

Note: Although the dataset contained 216 name signs, these were analyzable into 421 component signs. All of the percentages in table 1 represent a proportion of these 421 signs.

Figure 1. The descriptive JSL signed name MANGA.



Figure 2. THRUSTING-SPEAR, the signed name of an individual surnamed Katou (加藤).

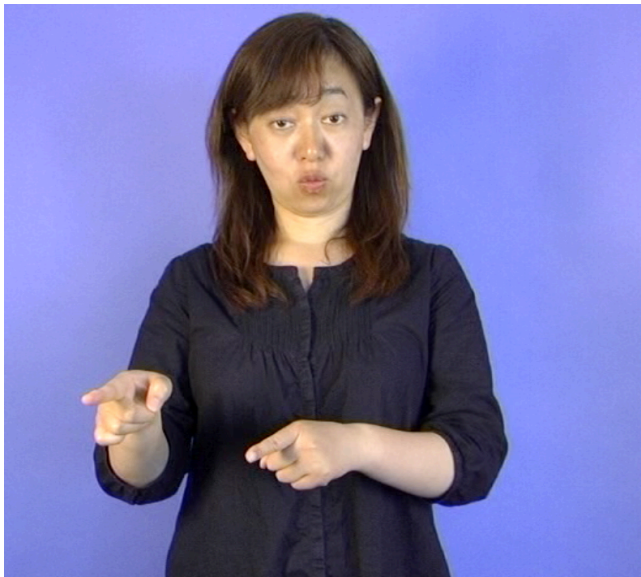


Figure 3. Woodblock image of Katou Kiyomasa by the artist Yoshitoshi.



Figure 4. Japanese surname Arai (新井) and corresponding JSL signed name.

新
ara
“new”

represented by NEW, a JSL sign translating the word *ara*



井
i
“well”

represented by a character sign depicting the shape of the character 井



Figure 5. Two readings of the kanji character 本.

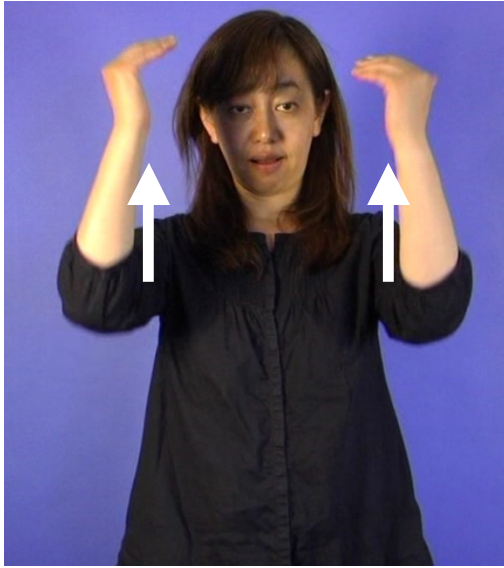
On reading: *Hon.* Book, volume, (prefix) main, head, this, our, present, real, counter for long cylindrical things, counter for films, TV shows, goals, home runs, and so on.

Kun reading: *Moto.* Origin, source, base, basis, foundation, root, cause, ingredient, material, original cost, (plant) root, (tree) trunk, first section of a *waka* (classical poem), classifier for blades of grass, tree trunks, falcons, handles (chopsticks, brushes, etc.), and grips.

Figure 6. A-BANDANA, a descriptive initialized signed name.



Figure 7. HIGH-GRASS, a translation of the Japanese words *taka* (高) and *kusa* (草) into JSL.

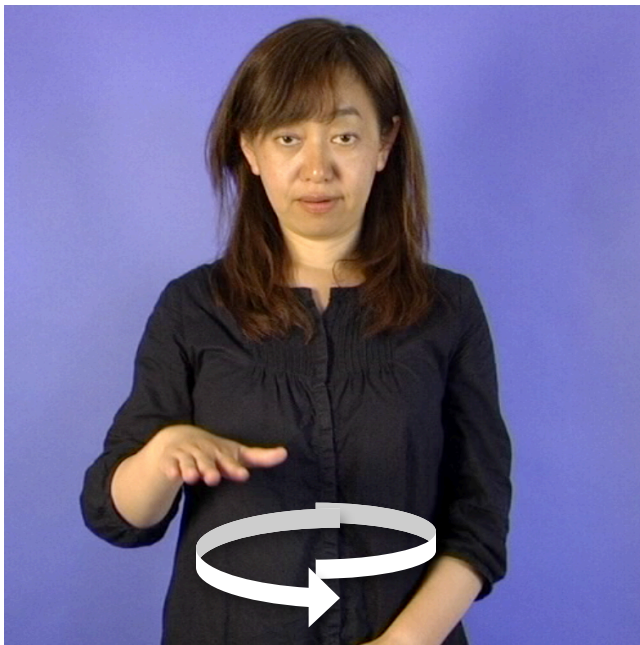


HIGH



GRASS

Figure 8. The JSL name FIELD, a translation of the Japanese word *hara* (原).



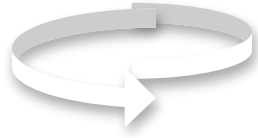


Figure 9. The JSL name BELLY, a translation of the Japanese word *hara* (腹) “belly” and a homonym of the word *hara* (原) “field.”



Figure 10. FIRE-BUILDING, a homonymic loan translation via word boundary reanalysis and simple loan translation from the Japanese surname Kajikura (鍛冶倉).



FIRE

BUILDING

Figure 11. The initialized signed name FIRE-BUILDING, corresponding to the Japanese surname Kajikura 鍛冶倉, where FIRE is articulated with the handshape of the yubi moji syllable *ka*.



FIRE



BUILDING

Figure 12. A signed name composed of character signs representing the kanji characters *san* (三), *ko* (小), and *da* (田).



三

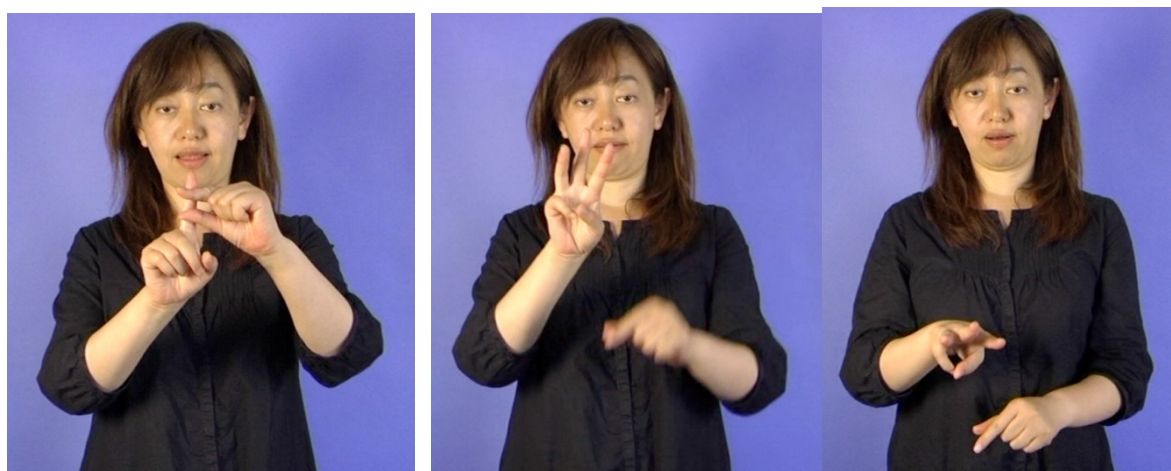


小



田

Figure 13. A signed name composed of character signs representing the kanji characters *naka* (中) and *kawa* (川).



中

川

Figure 14. DRAGON-MI, a signed name incorporating both a loan translation and a fingerspelling to represent the Japanese name Tatsumi (辰巳).



DRAGON

Fingerspelled syllable *mi*

Figure 15. A signed name incorporating a character sign and a fingerspelling to represent the Japanese name Nakano (中野).

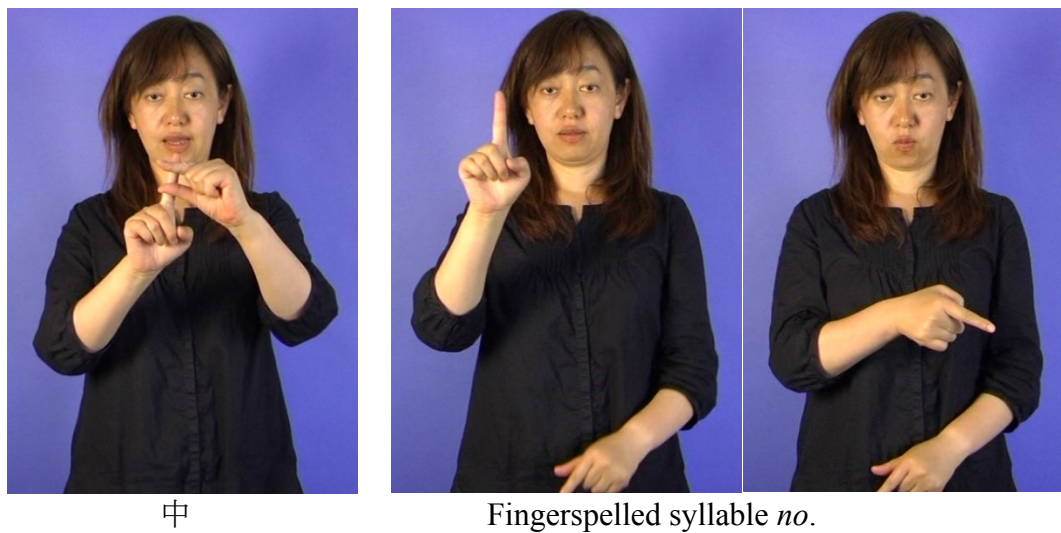
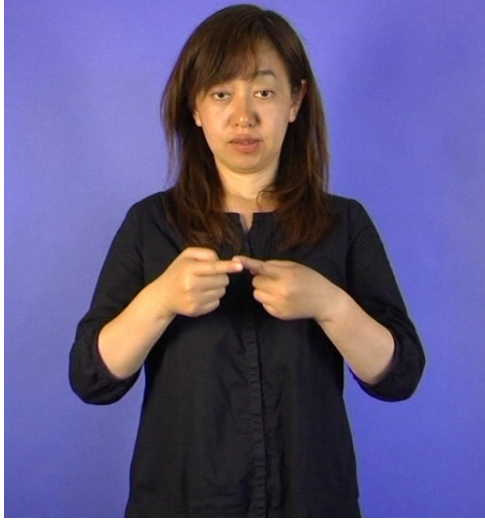


Figure 16. A signed name using two character signs to represent the characters in the surname Nyuuta (入田).

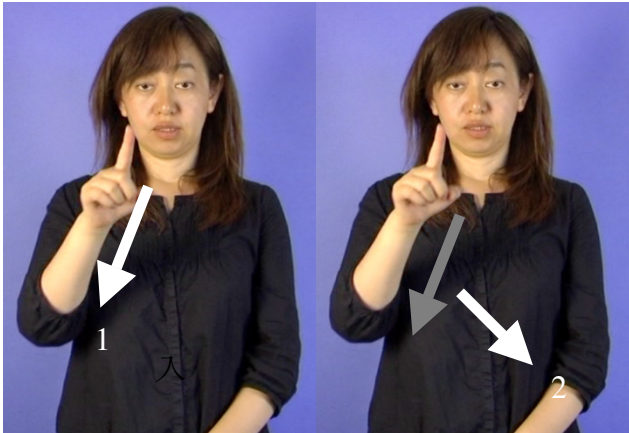


入



田

Figure 17. Air-drawing a signed name (produced from the signer's perspective) and a character sign to represent the characters in the surname Nyuuta (入田).



Notes

1. Descriptive name signs have been identified in literature discussing Adamorobe Sign Language (Nyst and Baker 2003), American Sign Language (Meadow 1977; Mindess 1990; Supalla 1990, 1992), Australian Sign Language (Johnston and Schembri 2007), Ban Khor Sign Language (Nonaka 2007), British Sign Language (Day and Sutton-Spence 2010), Chinese Sign Language (Yau and He 1989), Estonian Sign Language (Paaes 2010, 2011), Finnish Sign Language (Rainó 2005), Flemish Sign Language (Van Mulders 2005), French Sign Language (Mottez 1985; Delaporte 2001), German Sign Language (Mackevicius 2010), Greek Sign Language (Kourbetis and Hoffmeister 2002), Irish Sign Language (Leeson and Saeed 2013), Mali Sign Language (Nyst and Baker 2003), New Zealand Sign Language (Locker McKee and McKee 2000), Quebec Sign Language (Desrosiers and Dubuisson 1994), Sign Language of the Netherlands (Nyst and Baker 2003), Swedish SL (Hedberg 1994), Thai Sign Language (Nonaka 1997), and Ugandan Sign Language (Nyst and Baker 2003).

2. “Stroke count” refers to the number of strokes (traditionally made with a calligraphy brush) required to draw a kanji character. “Stroke order” refers to the particular sequence in which strokes are produced. Correctly written, kanji characters must be written using a particular stroke order. “The basic rules are top to bottom and left to right” (Kuratani, Kobayashi, and Okunishi 1982, 434).

Proper stroke order yields correct stroke count. For those who have never studied Japanese, one cannot overemphasize the importance of proper stroke order and correct stroke count. Pedagogically, producing kanji using proper stroke order not only improves writing legibility but also assists in committing characters to memory. Moreover, stroke count (which, as already mentioned, relies on stroke order) is a central organizing feature of character

dictionaries. In instances in which the meaning(s) of a kanji, its pronunciation/reading(s), and/or the character's radical are unknown, it is possible to look up the kanji in a dictionary using stroke count. Finally, adherence to correct stroke order rules is not only pedagogically and practically useful but also aesthetically important in Japan, where calligraphy has been elevated to an art form.

3. Obata (1985) clarifies the meaning of two pedagogical terms dating to the Meiji period: *Kakitori* (書取) “dictation” referred to the instructional approach of translating between kana, kanji, and signs or gestures, while *danwa ousetsuhou* (談話応接法) “discourse training” referred to the development of conversational skills via writing and reading.

References

- Ann, J. 1998. Contact between a Sign Language and a Written Language: Character Signs in Taiwan Sign Language. In *Pinky Extension and Eye Gaze: Language Use in Deaf Communities*, ed. C. Lucas, 59–99. Language Use in Deaf Communities. Washington, DC: Gallaudet University Press.
- Battison, R. 1978. *Lexical Borrowing in American Sign Language*. Silver Spring, MD: Linstok.
- Chen, H. 2007. Lexical Borrowing in Taiwan Sign Language: Focus on Chinese Character Signs. Master's thesis, University of Texas at Austin.
- Day, L., and R. Sutton-Spence. 2010. British Sign Name Customs. *Sign Language Studies* 11(1): 22–54.
- Delaporte, Y. 2001. *Les sourds, c'est comme ça! Ethnologie de la surdimutité* [Thus Are the Deaf: An Ethnology of Deafness], vol. 23. Paris: Éditions de la Maison des sciences de l'homme.

- Desrosiers, J., and C. Dubuisson. 1994. Name Signs in Quebec Sign Language (LSQ) and What They Tell Us about Quebec Deaf Culture. In *Perspectives on Sign Language Usage: Papers from the Fifth International Symposium on Sign Language Research*, vol. 2, ed. I. Ahlgren, B. Bergman, and M. Brennan, 249–60. Durham, UK: International Sign Linguistics Association.
- Elison, G. 1983. “Katou Kiyomasa.” In the *Kodansha Encyclopedia of Japan*, vol. 4, 168. Tokyo: Kodansha.
- Fischer, S. D. 2008. Sign Languages East and West. In *Unity and Diversity of Languages*, ed. P. van Sterkenburg, 3–15. Amsterdam: Benjamins.
- , and Q. Gong. 2010. Variation in East Asian Sign Language Structures. In *Sign Languages*, ed. D. Brentari, 499–518. Cambridge Language Surveys.
- Frellesvig, B. 2010. *A History of the Japanese Language*. Cambridge: Cambridge University Press.
- Fukuda, Y., H. Akahori, K. Fukishima, K. Suzuki, H. Kimura, and Y. Ishida. 1999. Nihon shuwa ni yoru roushakan no taiwa no nihon shuwa de no tango no youhou ni kansuru kenkyuu. [A Study of the Usage of Words in Dialogue between Deaf Persons through Japanese Sign Language]. In *Transactions of the Technical Committee on Psychological and Physiological Acoustics, H-99-21, Acoustical Society of Japan, and Technical Report, IEICE, Transactions of the Technical Committee on Speech, SP98-1541999*: 1–6.
- Gaudart, H. 1999. *The Trouble with Names: Forms of Address in Asia*. Singapore: SNP Editions.
- George, J. E. 2011. Politeness in Japanese Sign Language (JSL): Polite JSL Expression as Evidence for Intermodal Language Contact Influence. PhD diss., University of California at Berkeley.
- Haruo, A. 1983. *Kodansha Encyclopedia of Japan*, 1st ed., vol. 4, *Kana*. Tokyo: Kodansha.

- Hedberg, T. 1994. Name Signs in Swedish Sign Language: Their Formation and Use. In *The Deaf Way: Perspectives from the International Conference on Deaf Culture*, ed. C. J. Erting, R. H. Johnson, D. L. Smith, and B. D. Snider, 416–24. Washington, DC: Gallaudet University Press.
- Ishida, Y. 2000. Nihon shuwa bogo washa jinko suikei no kokoromi [The Estimation of the Number of Native Signers of Japanese Sign Language]. In *Proceedings of the 27th JSL Annual Meeting*, 42–45.
- Japan Broadcasting Corporation (NHK). 1990. *Minna No Shuwa* [Everyone's Sign Language]. Textbook and video short course in Japanese Sign Language. Tokyo: Tokyo Interpreters Association and the Japanese National Broadcasting Corporation.
- Japanese Federation of the Deaf (JFD). 2013. *Current State, Purpose, and Structure and Roster of Executive Officers* (translated from Japanese). Retrieved January 15, 2014, from <http://www.jfd.or.jp/about/gensei>.
- . 1984. *Shuwa kyoushitsu* [Sign Language Classroom]. Textbook and video short course in Japanese Sign Language. Tokyo: Japanese Federation of the Deaf and the Japan Broadcasting Corporation (NHK).
- Johnston, T., and A. Schembri. 2007. *Australian Sign Language (Auslan): An Introduction to Sign Language Linguistics*. Cambridge: Cambridge University Press.
- Koizumi, A., H. Sagawa, and M. Takeuchi. 2002. An Annotated Japanese Sign Language Corpus. In *Proceedings of the Third International Conference on Language Resources and Evaluation*, 927–30.
- Kourbetis, V., and R. J. Hoffmeister. 2002. Name Signs in Greek Sign Language. *American Annals of the Deaf* 147(3): 35–43.

- Kuratani, N., A. Kobayashi, and S. Okunishi. 1982. *A New Dictionary of Kanji Usage* [Atarashii kanji y'lohōjiten]. Tokyo: Gakken.
- Leeson, L., and J. Saeed. 2013. *Irish Sign Language*. Edinburgh: Edinburgh University Press.
- Locker McKee, R., and D. McKee. 2000. Name Signs and Identity in New Zealand Sign Language. In *Bilingualism and Identity in Deaf Communities*, ed. M. Metzger, 3–40. Sociolinguistics in Deaf Communities 6. Washington, DC: Gallaudet University Press.
- Machabée, D. 1995. Description and Status of Initialized Signs in Quebec Sign Language. In *Sociolinguistics in Deaf Communities*, ed. C. Lucas, 29–61. Washington, DC: Gallaudet University.
- Mackevicius, K. 2010. *Einsatz von Namensgebärden im Gebärdensprachkurs in Bayern*. Hamburg: Books on Demand.
- Meadow, K. P. 1977. Name Signs as Identity Symbols in the Deaf Community. *Sign Language Studies* 16(1): 237–46.
- Meiji Yasuda Life Insurance Company. 2008. Meiji Yasuda Life Insurance Company National: Same Family Name Investigation (translated from Japanese). Retrieved August 1, 2014, from <http://www.meijiyasuda.co.jp/profile/news/release/2008/pdf/20080924.pdf>.
- Mindess, A. 1990. What Name Signs Can Tell Us about Deaf Culture. *Sign Language Studies* 66(1): 1–23.
- Morgan, M. 2008. Expressing Possession and Existence in Japanese Sign Language. In *Possessive and Existential Constructions in Sign Languages*, ed. P. Perniss and U. Zeshan. Sign Language Typology Series 2. Nijmegen: Ishara.

- . 2006. Interrogatives and Negatives in Japanese Sign Language (JSL). In *Interrogative and Negative Constructions in Sign Languages*, ed. U. Zeshan. Sign Language Typology Series 1. Nijmegen: Ishara.
- Mori, S. 2010. Pluralization. In *Deaf around the World*, ed. G. Mathur and D. J. Napoli. Oxford: Oxford University Press.
- Mottez, B. 1985. Aspects de la Culture Sourde. *Sante Mentale* 85 (April): 13–16.
- Nakamura, K. 1995. *About Japanese Sign Language*. Retrieved August 2014 from <http://www.deaflibrary.org/jsl.html>.
- . 2006. *Deaf in Japan: Signing and the Politics of Identity*. Ithaca, NY: Cornell University Press.
- Nonaka, A. M. 1997. A Comparison of Thai and American Name Signs. Presentation at the First Australasian Deaf Studies Conference, La Trobe University, Australia, February.
- . 2007. Emergence of an Indigenous Sign Language and a Speech/Sign Community in Ban Khor, Thailand. PhD diss., University of California at Los Angeles.
- Nyst, V., and A. Baker. 2003. The Phonology of Name Signs: A Comparison between the Sign Languages of Uganda, Mali, Adamorobe, and the Netherlands. In *Cross-Linguistic Perspectives in Sign Language Research*, ed. A. Baker, B. van den Bogaerde, and O. Crasborn, 71–80. Selected papers from TISLR 2000.
- Obata, S. 1985. History of Language Education of the Hearing Impaired in Japan. *Rehabilitation Research Study of Current Rehabilitation* 66. Retrieved November 2014 from http://www.dinf.ne.jp/doc/japanese/prdl/jsrd/rehab/r050/r050_002.html.

- Osugi, Y., and T. Supalla. 1998. Structural Analysis of Gender Handshapes in Nihon Shuwa. *Sign Language Communication Studies* 27: 63–74. Tokyo: Japan Institute for Sign Language Studies.
- Paales, L. 2011. Name Signs for Hearing People. *Folklore* (47): 43–76.
- . 2010. On the System of Person-Denoting Signs in Estonian Sign Language: Estonian Personal Name Signs. *Sign Language Studies* 10(3): 317–35.
- Padden, C. 1998. The ASL Lexicon. *International Review of Sign Linguistics* 1: 33–51.
- , and D. C. Gunsauls. 2003. How the Alphabet Came to Be Used in a Sign Language. *Sign Language Studies* 4(1): 10–33.
- Peng, F. C. 1974. Kinship Signs in Japanese Sign Language. *Sign Language Studies* 5: 31–47.
- Plutschow, H. E. 1995. *Japan's Name Culture: The Significance of Names in a Religious, Political and Social Context*. Kent, UK: Japan Library.
- Rainó, P. 2004. *The Emergence and Development of Personal Name Signs among Sign Language Users in Finland*. Deaf Studies in Finland 2. Helsinki: Finish Association of the Deaf.
- Sagara, K., and J. Yang. 2013. *Comparing the Structures of Number Signs in Japanese Sign Language and Chinese Sign Language*. Poster presentation at the Thirteenth Theoretical Issues in Sign Language Research conference. London, July 10–13.
- Sagawa, H., and M. Takeuchi. 2000a. Development of an Information Kiosk with a Sign Language Recognition System. In *Proceedings on the 2000 Conference on Universal Usability*, 149–50. Arlington, VA: ACM. doi: 10.1145/355460.355552.
- . 2000b. A Method for Recognizing a Sequence of Sign Language Words Represented in a Japanese Sign Language Sentence. In *Proceedings of the Fourth IEEE International*

- Conference on Automatic Face and Gesture Recognition*, 434–39. doi:
10.1109/AFGR.2000.840671.
- . 2002. A Teaching System of Japanese Sign Language Using Sign Language Recognition and Generation. In *Proceedings of the Tenth ACM international conference on Multimedia*, 137–45. Arlington, VA: ACM. doi: 10.1145/641007.641035.
- Shikaku. 2014. Deaf social organization. Japanese Name Signs. Retrieved January 15, 2014, from <http://shikaku.in/sign/PJ/1/>.
- Smith, W. H., and L. F. Ting. 1979. Shou neng Sheng Chyau [Sign Language Manual], vol. 1. English translation.
- Supalla, S. 1990. The Arbitrary Name Sign System in American Sign Language. *Sign Language Studies* 67: 99–126.
- . 1992. *The Book of Name Signs: Naming in American Sign Language*. San Diego: DawnSignPress.
- Sutton-Spence, R., and B. Woll. 1993. The Status and Functional Role of Fingerspelling in BSL. *Psychological Perspectives on Deafness* 1: 185–208.
- Tang, G. 2007. *Hong Kong Sign Language: A Trilingual Dictionary with Linguistic Descriptions*. Hong Kong: Chinese University Press.
- Tokuda, M., and M. Okumura. 1998. Towards Automatic Translation from Japanese into Japanese Sign Language. In *Assistive Technology and Artificial Intelligence*, 97–108. Berlin: Springer.
- Tokyo Blind and Dumb School. 1893. *Short Account of the Tokyo Blind and Dumb School*. Tokyo.

- Torigoe, T., and W. Takei. 2001. A Descriptive Analysis of Early Word Combinations in Deaf Children's Signed Utterances. *Japanese Psychological Research* 43(3): 156–61.
- Valli, C. 2000. Lexicalized Fingerspelling and Loan Signs. In *Linguistics of American Sign Language: An Introduction*, 3rd ed., ed. C. Valli and C. Lucas, 64–71. Washington, DC: Gallaudet University Press.
- Van Mulders, K. 2005. Name Signs in Flemish Sign Language. *Deaf Worlds* 21(1): 49–78.
- Xu, M., B. Raytchev, K. Sakaue, O. Hasegawa, A. Koizumi, M. Takeuchi, and M. Sagawa. 2000. A Vision-Based Method for Recognizing Non-Manual Information in Japanese Sign Language. In *Advances in Multimodal Interfaces: ICMI 2000*, 572–81. Berlin: Springer.
- Yamada, T. 1983. *Kodansha Encyclopedia of Japan*, 1st ed., vol. 4, *Kanji*. Tokyo: Kodansha.
- Yau, S. 1977. *The Chinese Signs: Lexicon of the Standard Sign Language for the Deaf in China*. Jiu Ming.
- , and J. He. 1989. How Deaf Children in a Chinese School Get Their Name Signs. *Sign Language Studies* 65: 305–22.