

CHAPTER 54

HONG KONG SIGN LANGUAGE

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54.1 INTRODUCTION

SIGN languages differ from spoken languages in a number of ways. First, they are articulated through a visual spatial modality, and second, in language production, they make use of two independent but identical manual articulators (i.e., the two hands), facial muscles, the signer's body and head, and sometimes vocalizations. The adoption of such many "articulatory organs" has an effect on the ways sign language grammar is structured, in the sense that different combinations of these physiological attributes are employed to encode sign language grammar at the phonological, morphological, and syntactic level, leading to the general observations that the organization of linguistic units in sign language is highly simultaneous (Vermeerbergen et al. 2007). In this chapter, we offer a linguistic sketch about Hong Kong Sign Language (HKSL) based on the research conducted in recent years. Besides, the data suggest that HKSL and Cantonese are independent languages displaying differences in certain grammatical properties.

A discussion about the linguistics of HKSL would not be complete without a description about how it originated in the 1930s in Hong Kong and the course it took until the form we observe today. Like the emergence of a new sign language reported in Senghas and Coppola (2011), the establishment of a signing deaf school played a pivotal role in sparking the development of HKSL in the 1930s. However, it was not until the 1990s that linguistic research on HKSL began. In this chapter, we trace the origin of HKSL since the early 1930s then discuss recent research on the linguistics of HKSL at different levels.

54.2 HISTORICAL DEVELOPMENT OF HONG KONG SIGN LANGUAGE

In recent linguistic studies about sign languages, various acronyms have been given to refer to the natural sign language varieties adopted by the deaf communities, such

as American Sign Language (ASL), British Sign Language (BSL), Australian Sign Language (AUSLAN), Brazilian Sign Language (LSB), and Chinese Sign Language (CSL). In Hong Kong, the Deaf communities prefer to use the term HKSL to distinguish it from the varieties of the Mainland. By natural sign language, we refer to those varieties that are acquired by deaf children from Deaf parents since birth and the linguistic systems that are passed down from one Deaf generation to the next. However, a great majority of deaf children are born of hearing parents and have no access to sign language. Many of them entered deaf schools when the policy of integration was not in full swing; hence they acquired sign language either from Deaf teachers or Deaf peers whose parents were Deaf. In fact, the evolution of sign language is tied closely to deaf education.

There were few historical records about deaf education, use of sign language, or the existence of a Deaf community before 1930s. A recent survey by Sze et al. (2013) attempted to reconstruct the history by gleaning from newspaper clippings, government documents about deaf news, and verbal reports from the elderly HKSL signers. According to them, the first deaf school—the Hong Kong School for the Deaf (HKSD)—was established in 1935, and it remained one of the main deaf schools in Hong Kong until its conversion to a regular school in 2004. Since its establishment, the school consistently adopted oralism in educating deaf students, and sign language was basically banned in the classroom. Although the education system perpetuates the misconception that learning sign language would adversely affect oral language development of deaf children, recent findings of sign language acquisition have begun to dispel such unfounded myths. In fact, the elderly HKSL signers who had studied at HKSD before recalled that deaf children in those days created signs and communicated through signs/gestures extensively among themselves after class or in the dormitory. These forms of signing spread quickly within the school and probably constituted the earliest form of HKSL. Yet the establishment of two signing deaf schools—the Overseas Chinese School for the Deaf and Dumb—by a deaf couple in 1948 and 1956, respectively, triggered a prolific development of HKSL. The Deaf couple, who fled to Hong Kong from the Mainland, brought with them the signing varieties from Nanjing and Shanghai. They used them to teach and interact with deaf students (*Overseas Chinese Daily News* 1962). As deaf students of these deaf schools intermingled within their communities, one may conjecture that HKSL evolved based on a mixture of Nanjing and Shanghai varieties as well as some indigenous signs from HKSD. Although the Overseas Chinese Schools for the Deaf and Dumb closed down in 1970s, their deaf graduates continued to use the signs and became signing models of deaf students from other education settings such as HKSD (Lo et al. 2010). These historical records justify a closer typological lineage between HKSL and Shanghai Sign Language or Nanjing Sign Language. A subsequent study by Woodward (1993) confirmed that HKSL and Shanghai Sign Language shared about 66% to 68% of the cognates in the basic vocabulary. Indeed the study by Woodward triggered a series of research projects to document the varieties of HKSL, and hence the commencement of sign linguistics research in HK.

Currently, according to the government's 2008 census, there are about 92,200 people who suffer from different degrees of hearing impairment in Hong Kong (1.3% of the total population), among which 8,600 (0.1% of the total population) were categorized as "completely deaf" (cf. Hong Kong Government 2008). Given the prevalence of oralism in supporting deaf children, we suspect that the number of Deaf signers is much smaller. What we as researchers could discern is the phenomenon that while the older signers formed their own cliques, communicating among themselves with an earlier form of HKSL, other varieties of HKSL also came from signs contributed by deaf students from four deaf schools that were in operation in the 1970s and 1980s, two of which had ceased to exist due to shrinkage of deaf student enrolments in recent years in favor of mainstream education. The only deaf school left in Hong Kong, the Hong Kong Lutheran School for the Deaf, claims to favor Total Communication.¹

Given these circumstances described above, HKSL reveals a certain degree of lexical variation, and signers can track the educational settings of their peers through the signs they adopt in their daily communications, giving rise to disputes about which signs are "correct" among the Deaf members of the communities and the misconceived promotion of "standardization" of HKSL. In fact, the onslaught of oralism and integration in deaf education as a government policy has sidelined if not undermined the development of HKSL, as deaf students, young or adult, are not supported by sign language in deaf education and fail to develop knowledge of this language as a first or second language. As a result, the number of fluent signers among the younger generations remains small.

In sum, this section outlines the historical backgrounds of HKSL against which a group of sign linguists embarked on a series of research in the 1990s until now. The findings thus far show that HKSL has its own independent grammar, which is different from that of Cantonese or Mandarin Chinese, the written form of Chinese adopted in Hong Kong education.

54.3 THE LINGUISTICS OF HONG KONG SIGN LANGUAGE

53.3.1 Phonology

Similar to other sign languages, HKSL has a system of sublexical, phonological contrasts in terms of handshape, location, movement, and orientation, allowing the language to create signs with different meanings. Examples are given below:

1. Contrastive handshapes



FIGURE 54.1A DIFFICULT



FIGURE 54.1B KNOW

2. Contrastive movements



FIGURE 54.2A QUIET



FIGURE 54.2B MOTHER

3. Contrastive palm orientations



FIGURE 54.3A EXAMINATION



FIGURE 54.3B INCIDENTAL

4. Contrastive locations



FIGURE 54.4A POOR



FIGURE 54.4B AGE

The goal of identifying these phonological contrasts is to establish a list of “phonemic” differences in terms of distinctive handshapes, palm orientations, locations, and movements. Brentari’s (1998) Prosodic Model cited different sets of plausible distinctive features within each of the parameters; however, whether these features are applicable to the analysis of other sign languages remains to be seen. An earlier attempt of such application was found in Tang (2007) in which she analyzed about 1,800 lexical signs in terms of “inherent” as well as “prosodic” features. Liddell and Johnson (1989) argued for simultaneity in sign language phonology where features of handshape, movement, palm orientation, and location are “stacked” onto each other in its formation. However, later studies revealed sequentiality in sign language phonology expressed in terms of dynamic changes of the movement parameter (Brentari 1998). Phonetically, movement is expressed in terms of transition between two stases, hence two timing units, leading to setting changes in path movement (e.g., up to down movement in CRUEL), aperture change (e.g., open to close fingers in LIGHT_OUT), or orientation change (e.g., pronation to supination of the wrist in CHANGE).

Simultaneity in HKSL phonology may also be analyzed in terms of combinations of different path and local movements in sign articulation. Mak and Tang (2011) identified three types of movement in HKSL: no movement, simplex movement, and complex movement. There are quite a number of signs in HKSL that contain no movement at all but an epenthesis movement to hold, such as REVENGEFUL. Simplex movements involve one type of dynamic change such as setting change, aperture change, or orientation change. Complex movements involve (a) a path movement overlaid with a local movement or (b) two local movements. For example, the sign SUGGEST involves a path movement from the temple of the head, overlaid with an opening movement of the fingers (i.e., aperture change from close to open). The sign RESOLVE involves a simultaneous combination of orientation change and aperture change. Interestingly, signs involving such combinations are not many in HKSL.

Another level of simultaneous layering of phonological information is by way of combining nonmanuals with the sign’s manual articulation (e.g., BAD). This sign is accompanied with pursed lips. The manual articulation of LAZY is overlaid with tongue protrusion and head tilt.

54.3.2 Morphology

54.3.2.1 *The Hong Kong Sign Language Lexicon*

In approaching the lexicon of a sign language, one needs to take into account the morphology of sign language, the age of the language, and the language contact situation between the sign language and spoken language of the community. The first factor also sets HKSL apart from Cantonese or Mandarin Chinese. HKSL, being an agglutinating language, is rich in inflectional morphology while Cantonese or Mandarin Chinese are said to be analytic with few inflectional morphological markers such as tense and agreement. Second, it has been well accepted that the sign languages under study so far are relatively young.

HKSL, for example, may have a history of no more than seventy to eighty years, which is in stark contrast with Chinese. The age factor has an effect on the extent of lexicalization in the language. Seen in this light, these two factors square well with the observation that the number of lexical signs in the lexicon is usually as small as a few thousand with many sign languages. However, as an agglutinating language, most signs of HKSL are made up of a whole host of affixes attached to a root that can also be a bound morpheme by itself. Lexical signs in the literature are usually referred to as the “frozen lexicon” as compared to the “productive lexicon,” which hosts a lot more signs linguistically analyzed as morphosyntactic constructions rather than lexical signs. The third factor, which is language contact between HKSL and spoken Cantonese, has led to interesting consequences. As sign language may be regarded as a minority language used by the Deaf communities, borrowing is common, and it seems to be unidirectional, that is, properties of the spoken language are borrowed into the sign language system. Brentari and Padden (2001) characterized the nature of a sign language lexicon as constituted by native and foreign signs. In the foreign lexicon, American Sign Language tends to incorporate the handshapes of the English alphabets to create many initialized signs such as FAMILY and UNIVERSITY and fingerspell signs such as J-O-H-N. This “foreign” lexicon is set apart from the native lexicon that is made up of core lexical signs and classifier predicates signs. In HKSL, just as in Taiwanese Sign Language and Chinese Sign Language, foreign signs revealing a Chinese origin are found, though not many, probably due to the complex orthographic nature of the Chinese characters. They are articulated by either finger configuration (e.g., FIELD “田”, Figure 54.5). What makes HKSL different from Taiwanese Sign Language and Chinese Sign Language is that HKSL does not have initialized signs or fingerspell signs in the lexicon because Cantonese romanization is restrictive in use in Hong Kong.



FIGURE 54.5 FIELD

54.3.2.2 *Compounding*

Citing Plag's (2006) works on pidgins and creoles, Meir et al. (2010) argued that sign languages employ compounding productively as a word formation process just as young spoken languages. Similar to spoken languages, sequential compounds in sign languages may be endocentric or exocentric. Examples of exocentric compounds are SMALL^NAÏVE 'kindergarten' or GOVERNMENT^STAMP 'stamp duty'. It seems that although the meaning of exocentric compounds tends to be opaque in spoken languages, such opacity may be offset by iconicity, a characteristic of sign language, as these examples show. Endocentric compounds are also found. Examples of morphological heads of these compounds are EAT or LEARN, as in MORNING^EAT 'breakfast', AFTERNOON^EAT 'lunch' and NIGHT^EAT 'dinner', or BIG^LEARN 'university', SMALL^LEARN 'primary school', and MIDDLE^LEARN 'secondary school'. These compounds are said to be right-headed, similar to Chinese, which also contains right-headed compounds. Unlike these examples that have a strong Cantonese influence, there are right-headed endocentric compounds that are intrinsic to HKSL, such as RED^ROUND_OBJECT 'tomato' and RED^LONG_EAR^CYLINDRICAL_

OBJECT 'carrot', GIVE_BIRTH^MALE 'son' and "GIVE_BIRTH^FEMALE 'daughter' or MARRY^MALE 'husband' and MARRY^FEMALE 'wife' where the first sign modifies the second, and it is the head that determines the class membership as well as grammatical category.

In addition to sequential compounds, HKSL also displays a category of simultaneous compounds. Most of these signs have an origin from two-handed signs encoding a classifier predicate. Some of these signs are subsequently lexicalized. Examples of such types of compounds are LIFT, literally glossed as "CL:human_stands_on_flat_surface ^RISE" or HELICOPTER, literally glossed as "ROTORS^CL:aircraft." These simultaneous compounds are highly iconic in nature, as most classifier predicates are. However, they are treated as lexical signs rather than morphosyntactic constructions in certain contexts. Simultaneous compounds that do not stem from classifier predicates are exceedingly rare; examples are WHAT_MONTH^WHAT_DATE or HARD_OF_HEARING, which should be literally glossed as HALF_ON_EAR^HALF_ON_MOUTH. With these signs, we observe that the high degree of simultaneity has resulted in symmetry in the phonological components of handshape, palm orientation, location, as well as movement, in compliance with Battison's Symmetry condition of two-handed signs (Battison 1978).

54.3.2.3 *Inflectional Morphology*

Number and Negative Incorporation: Incorporation of numbers and the negative morpheme NOT is another example showing that simultaneity is at work also at the level of inflectional morphology. In number incorporation, the handshape of the number morpheme is incorporated into the stem sign, the location and movement of which are usually retained, but the handshape slot will be reserved for number, as in TWO_MINUTE and THREE_YEAR (Figure 54.6a). In negative incorporation, as in SEE^NOT and HEAR_NOT 'not heard of' (Figure 54.6b), the negator NOT is merged with the stem SEE or HEAR, and, as such, the phonological form differs from the citation NOT.



FIGURE 54.6A THREE_YEAR

Agreement and Aspectual Morphology: To understand simultaneity in verbal morphology, we first introduce the way verbs are classified in many sign languages. Generally speaking, they are classified according to whether they are lexical or morpho-syntactic in nature, or whether they involve person agreement and/or spatial agreement. Plain verbs, agreeing verbs, and spatial verbs have a lexical root, but classifier verb root



FIGURE 54.6B HEAR^NOT

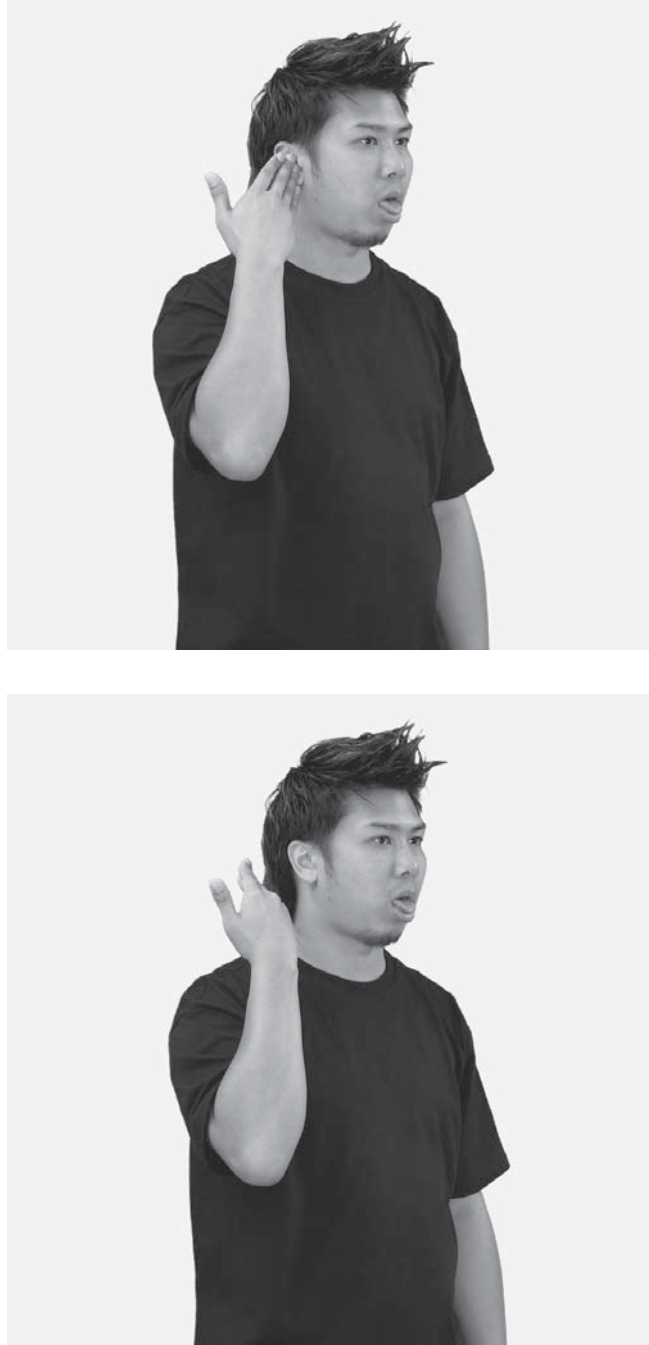


FIGURE 54.6B (continued)

is not lexical in nature. Within the category of lexical verbs, plain verbs do not encode person agreement; neither do they encode spatial agreement. Spatial verbs encode spatial agreement but not person agreement, and agreeing verbs encode both person and spatial agreement. Under these circumstances, simultaneity works on person and spatial agreement through path movement and direction to a locus in space. The locative morpheme is encoded by the beginning and end point of the path in space (i.e. two loci), and the direction of path movement of the verb may encode subject and/or object agreement, as in (1) and Figure 54.7.

- (1) KENNY YESTERDAY CAR₃GIVE₁.
'Yesterday, Kenny gave me his car.'

According to Lam (2003), HKSL adopts a three-way distinction with person agreement—first, second, and third—to mark grammatical relations, expressed through the direction of movement and location of the referents, real or imagined, in space. Other

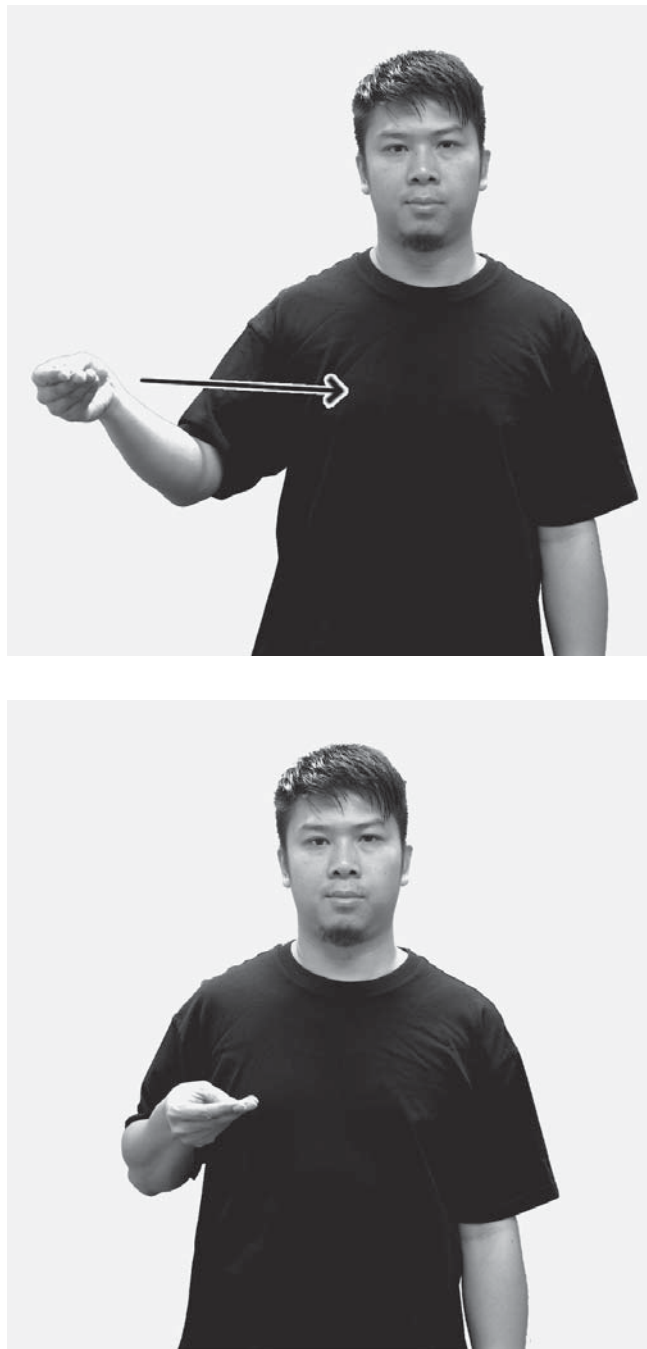


FIGURE 54.7 ₃GIVE₁

examples that show the subject and object verb agreement are ${}_2\text{TELL}_1$ and ${}_3\text{YOU}_2$. Take for example, in ${}_3\text{YOU}_2$, the direction of movement through space from one locus (third-person locus is on the either side of the signer's body) to the next (second-person locus is opposite the signer's body) indicates the grammatical relation between the subject and the indirect object. Under these circumstances, the loci as well as the direction of path movement are morphemic. Spatial verbs are less complex than agreeing verbs as they require movement direction to a locus (i.e., a locative morpheme) in space only, but the direction of movement is a phonological but not a morphemic unit. (2).

(2) YESTERDAY KENNY KNIFE PUT_a, LEAVE. TODAY, KNIFE

NOT_HERE_a

'Yesterday, Kenny put the knife (here) and left. Today, the knife is no longer here'

Verb agreement morphology expressed through modulating the movement in space may be overlaid with additional movement features to encode aspectual morphology. One such feature is [repeat] with added intensity, as in (3):

_____many times

(3) IX-3 YESTERDAY TEXT ${}_3\text{SEND}_1$, IX-1 ${}_1\text{IGNORE}_3$.

'He texted (me) incessantly yesterday; I ignored (him).'

Event Quantification: Lam (2008) also observes that event quantification is encoded through combining the default movement with additional movement features or an additional articulator. She argues that the so-called number markers "trial," "exhaustive," and "multiple" are in fact verbal quantifier markers and number markers combined. "Trial" can be interpreted as "each," "exhaustive" as "every," and "multiple" as "all." Technicality aside, these movements for quantification may be combined simultaneously with person and spatial agreement in agreeing verbs, as shown in (4a).²

(4) TODAY STUDENT THREE COME NOT_HAVE; TEACHER ANGRY
EMAIL_{EXHAUSTIVE} SCOLD_{EXHAUSTIVE}.

'Three students did not come today; the teacher was very angry. She/he emailed and scolded each of them.'

In (4), the direction of movement is maintained to show grammatical relations, but the shape of movement is modified for encoding event quantification. In this case, the single straight path to a locus for encoding an event is being reduplicated to different loci for individual subevents. 'Every' is represented by a series of repeated circular paths, and 'all' by an arc.

In sum, the research so far shows that in encoding properties such as grammatical relations, aspectuality as well as quantification simultaneously is made possible by modulating the movement parameter systematically. In the next section, we discuss how simultaneity manifests itself in classifier predicates, a construction commonly observed in sign languages.

Classifier Predicates: Classifier predicates are morphosyntactic structures composed of two obligatory affixes—a handshape affix and a movement affix—together with a host of other inflectional morphemes to encode the event properties. The handshapes, sometimes called “classifier handshapes” are associated with the arguments in the predicate. Following the conventional literature, classifier handshapes can be categorized into semantic, handle, size and shape specifiers, and body parts. The movement affix encodes the predicate root and the associated temporal and aspectual properties of the event. In HKSL, systematic study has been conducted on motion and location predicates (Tang 2003; Tang and Gu 2006), as well as causative and unaccusative predicates (Lau 2002). It has been suggested that iconicity is prevalent in classifier predicates (Tai 2005); in fact, simultaneity is just as prevalent as iconicity in sign languages. Tang et al. (2006) show that coordinated events can be signed simultaneously in HKSL, as in (5) and Figure 54.8:

- (5) BRENDA SIT, WATCH_TV, APPLE_i take+CL_handle:apple_i, eat+
CL_handle:apple+WATCH_TV

‘Brenda sits and watches TV; (she) takes an apple, eats it and watches TV (at the same time).’



FIGURE 54.8 eat+CL_handle:apple+WATCH_TV

54.3.3 Syntactic Word Order and Nonmanuals

In HKSL, although SVO is the most frequently attested word order variation is common (Sze 2003). According to Sze (2008), plain verb sentences with semantically reversible subjects and objects require a rigid SVO order. However, sentences with agreeing verbs or classifier predicates that invoke spatial elements may lead to SOV orders, as in (6a) and (6b).

- (6) a. FATHER LIKE PIZZA
 ‘Father likes pizza.’
 b. FATHER_a MOTHER_b _{3a}KISS_{3b}
 ‘Father kisses mother.’

While manual signs occur in a serial fashion, as in (6a) and (6b), it is common that they are overlaid simultaneously with linguistic nonmanuals, the functions of which can be lexical, phonological, morphological, or syntactic (Baker-Shenk 1983; Wilbur 2000; Sze 2008; Tang et.al. 2010; Pfau and Quer 2010). At the prosodic level, cues such as eye blinks and head nods occur usually at the right edge of phonological or intonational phrases, which signal constituent boundaries at the syntactic level, as in (7a). Using muscles of the lower face to produce nonmanual adverbials is also attested in HKSL, as such as tongue protrusion in (7b). Last, the muscles of the upper face make possible brow movements for a variety of syntactic functions such as brow raise for topics (Sze 2011), as in (7c), and conditionals (Tang and Lau 2012), as well as brow furrow for wh-questions (Tang 2006).

- bl/hn bl
- (7) a. MALE_i be-located+CL_{_sem:male}, IX-3 jump+CL_{_sem:male} LONG_TIME
 ‘The man is located here; he has been jumping for a long time.’
 (Eye blinks and head nods at syntactic boundaries)
 _____carelessly (protruded tongue)
- b. KENNY IX-a PLAY_PIANO.
 ‘Kenny plays the piano carelessly.’
 (adverbial nonmanuals)
 _____ br
- c. HAT BLUE IXa PETER BUY.
 ‘The blue hat over there, Peter bought (it).’
 (brow raise for topicalization)