Chapter 6

Possessive and existential constructions in Kata Kolok

Pamela Perniss and Ulrike Zeshan

KATA KOLOK

Kata Kolok (literally 'language deaf') is the sign language used in Desa Kolok (literally 'village deaf'), a small traditional farming village in the north of Bali, Indonesia. Due to the spread of a recessive deafness gene throughout the village, Desa Kolok has had a high incidence of deafness for many generations. Among the total village population of approximately 2,200, there are currently 45 deaf people. This puts the rate of deafness in the village at nearly 2%, which is 20 times greater than the world's average. There are deaf people (Balinese *kolok*) in all ten village clans, which means that the *kolok* are an integral part of the village population. As a result, all hearing people in Desa Kolok are accustomed to living with deaf people, and sign language is used not only among the deaf, but equally by the hearing village population.

Due to its peculiar sociolinguistic setting, the vast majority of Kata Kolok users are L2 (second language) users. These are the hearing people in the village who use the sign language to communicate with the deaf villagers. They also use a range of spoken languages, most prominently spoken Balinese, for various formal, informal, and ritual purposes in everyday life. The only monolingual users of Kata Kolok are the deaf villagers, and since access to formal education for the deaf has been nonexistent or marginal at best, they are illiterate. Unlike deaf communities in many urban settings, the deaf community in Desa Kolok does not receive any oral education or training in articulation and lipreading.

According to local tradition, deaf people and sign language have been an integral part of the village for several hundred years, and the village has culturally adapted to the presence of deafness in many ways. However, Kata Kolok has no official status as a language at any level of government and has only very recently been used in educational settings. A classroom for deaf children was opened in the local village school for the first time in 2007 and its language of instruction is Kata Kolok. Kata Kolok has developed in isolation with no contact from other sign languages, and has a large number of unusual structural features that are not found in better-documented urban sign languages around the world.

References:

Branson, J., Miller, D., and G. Marsaja (1996). Everyone here speaks sign language, too: A Deaf village in Bali, Indonesia – An initial report. In: Lucas, C. (Ed.), *Multicultural Aspects of Sociolinguistics in Deaf Communities*. Washington, DC: Gallaudet University Press, pp. 39-57.

Branson, J., Miller, D., and G. Marsaja (1999). Sign languages as natural part of the linguistic mosaic: The impact of Deaf people on discourse forms in North Bali, Indonesia. In: Winston, E. (Ed.), *Storytelling and Conversation: Discourse in Deaf Communities.* Sociolinguistics in Deaf Communities 5. Washington, DC: Gallaudet University Press.

Marsaja, G. (2007). *Desa Kolok – A Deaf Village and its Sign Language in Bali, Indonesia*. Nijmegen: Ishara Press.

1. Introduction: What makes Kata Kolol special?

This chapter provides a preliminary description of the various sign forms and constructions used in Kata Kolok to express possession and existence. Before approaching the main topic of possession/existence, we comment briefly on a number of characteristics and particularities in the structure of Kata Kolok, since this constitutes vital background information for a proper understanding of this chapter.

The first point to note concerns the relationship between spoken Balinese and Kata Kolok. Currently, there is no evidence that the structures of spoken Balinese have influenced the structures of Kata Kolok, despite the close interaction between deaf and hearing individuals in the village. In a wide range of lexical and grammatical domains such as the number system, kinship terms, the expression of questions and negation, verb morphology, and so forth, there are no similarities between the structures of Balinese and Kata Kolok. However, the system of conventionalised gestures used by hearing speakers of Balinese has had a significant impact on Kata Kolok on both the lexical and the grammatical level (see Marsaja 2007 for a detailed account). This includes the use of Kata Kolok signs that are derived from emblematic, word-like gestures, as well as the particular use of pointing, and examples of both are discussed in subsequent sections of this chapter.

The use of pointing signs, and the particular way this pointing system works in both Kata Kolok and Balinese gestures, plays an important role in the expression of location, possession, and existence, all of which are conceptually related. Kata Kolok uses a system of absolute pointing, meaning that the real-world locations of referents are pointed to. It is interesting to compare this to the discussions of "absolute frame of reference" systems in spoken languages (Levinson 1996, 2003; Pederson et al. 1998). The use of absolute pointing is reminiscent of, though not identical to, such systems. Contrary to what is found in most sign languages, pointing in Kata Kolok is not predominantly abstract. In most sign languages, referents that are not present in a given discourse context are associated with arbitrary locations in space; that is, signers arbitrarily choose a location in the signing space for a given discourse referent, for example, on their right- or left-hand side (Klima and Bellugi 1979; Liddell 1990; Lillo-Martin and Klima 1990). Although there are conventions governing the choice of abstract referent locations (see e.g. Engberg-Pedersen 1993), in most sign languages these conventions have nothing to do with the real-world locations of discourse entities. In Kata Kolok, however, referents – people, places, and objects – are most commonly identified by pointing to their real-world locations. This does not mean that villagers always know the exact whereabouts of their fellow villagers for the purpose of speaking about them (i.e. pointing to their actual location at any given time for reference). When people are not physically present in the specific context of utterance, they are identified by pointing to the location of their house or dwelling within the village. The directions of these points are unchanging because they are contingent on the topographical layout of the village. And at the moment of utterance, no matter what the signer's location or orientation, he/she knows the direction that identifies the specific referent being referred to.

It is important to note that spatial terms in the surrounding spoken language (Balinese), as well as in Balinese life and culture in general, are strongly rooted in an absolute, or geocentric, system (Wassmann and Dasen 1998, 2006). The spatial orientation system determines the layout of villages (e.g. where the main temple is built) as well as the layout of individual houses (e.g. the location of the kitchen or the orientation of the head during sleep). While egocentric terms like *right* and *left* (e.g. to designate the right and the left hands) and intrinsic feature descriptors (such as the front or back of an object) exist, the spatial language terms used in Bali are overwhelmingly absolute, referring to topographical features of the land (e.g. the central mountain and the sea) and the axis of the sunrise and sunset. Crucially, the absolute system of orientation is reflected in the gestures accompanying speech, especially in the pointing gestures accompanying deictic utterances such as *this way* (Changkakoti et al. 2005). These absolute pointing gestures are used in the same way by the deaf population in Desa Kolok, and the use of absolute pointing has become linguisticised and integrated into various systems in Kata Kolok, including pronominal reference, the directionality of classifier predicates, and the expression of location, possession, and existence.

Finally, Kata Kolok is a language with widespread polysemy or ambiguity both with respect to the lexicon and with respect to grammatical constructions. While this characterisation is not unique to Kata Kolok and is also found in other signed and spoken languages, e.g. in Indo-Pakistani Sign Language (Zeshan 2003), it is important to mention here, since this point will be relevant in several later sections of this chapter. Many signs in Kata Kolok have a rather wide semantic range, such as the general interrogative mentioned in section 3.1.1. Similar ambiguity can be seen in grammatical constructions, such as the variable juxtaposition in possessive structures described in section 3.2.1. Moreover, there is substantial indistinctness in the various occurrences of pointing in locative, existential, and possessive uses (see section 3), and this often needs to be resolved through context. To some extent, the extensive shared context that participants in a signed conversation can rely on, in particular with respect to the absolute sense of direction based on the topography of the village, facilitates under-specification in both lexicon and grammar, although it would go too far to say that the cultural context conditions the emergence and maintenance of structural under-specification. Be that as it may, polysemous and/ or under-specified structures in Kata Kolok play an important role in several of the following sections.

2. Kata Kolok data

The analysis presented in this chapter is based on video-recorded data from two primary sources: (1) fieldwork conducted in Desa Kolok with sign language users in the village community and (2) data elicitation sessions with a hearing member of the community who was part of the research team working on Kata Kolok in the Sign Language Typology Research Group at the Max Planck Institute for Psycholinguistics in Nijmegen, the Netherlands, from January 2005 to March 2006. Like many hearing people in the village, this signer has grown up using Kata Kolok

on a daily basis. Given the sociolinguistic and cultural context of Kata Kolok, the choice of a hearing informant as the main research assistant was not inappropriate, since many hearing people in the village are fluent in this sign language. In addition to his fluency in Kata Kolok, the research assistant was chosen to work in Nijmegen because he is among the few people in the village who have a university degree and have lived in an urban setting in Bali.

Kata Kolok data was collected during two field trips, in December 2004 and July 2005.[1] The video data includes over 10 hours of spontaneous signed conversations, both between deaf villagers and between deaf and hearing villagers, in natural settings around the village. From this large corpus, nearly three hours of video recordings were transcribed by the research assistant from Desa Kolok, and are a subset of data that includes many examples of possessive structures.

Data from the second field trip also include recordings of data elicitation sessions with controlled tasks designed to target possessive and existential constructions, and of conversations between (foreign) deaf researchers and deaf villagers geared towards topics of possession. The domains primarily targeted were inalienable possession (especially kinship), inanimate and animate alienable possession, and abstract possession (physical and psychological states). Some of the elicitation materials created for the cross-linguistic possession project were also used (see appendix). However, many of these materials proved difficult or impossible to use with the villagers in Desa Kolok, especially the deaf individuals, since the activities were not culturally salient. Therefore, the research team decided to use only one of the four game activities, and in a modified way. The picture comparison game (see appendix) was played by several pairs of deaf signers. In the usual form this game involves the participants hiding their respective pictures from one another, but the game was modified so that both pictures were put openly in front of the two participants (see Figure 1). The signers were alerted to the fact that for each pair, the two pictures differed in subtle ways. They were asked to look at each set of similar pictures together and discuss the differences between them. This resulted in a large number of possessive and existential constructions and was a useful way of eliciting more narrowly targeted data.

After careful transcription of both the spontaneous and elicited data by the hearing Kata Kolok signer in the Netherlands, example sentences and short narratives were elicited from him, drawing on the knowledge gained from the analysis of the other data, in order to augment and corroborate the findings. Communication in these sessions took place in a mixture of spoken English, International Sign, and Kata Kolok. These sessions included asking the informant to re-sign examples from the fieldwork data recorded in the village, checking the grammaticality/acceptability of utterances, and asking the signer to produce other, similar example utterances. While being clearly insufficient on its own, together with the natural fieldwork data

[1] The authors were, unfortunately, unable to participate in the field trips. We are relying on data collected by our colleagues in the Kata Kolok research team (see acknowledgements), as well as on our intensive face-to-face work with the research assistant from Desa Kolok.

these techniques allowed us to gain considerable insight into the basic structures used to express possession and existence in Kata Kolok. Moreover, many of the fieldwork video recordings are of less-than-ideal technical quality. For example, at times, several people are on the video which means there are no close-up views of individual signers, and the lighting conditions were not always optimal. Because we had the opportunity to record and re-record examples of Kata Kolok possessive and existential constructions under ideal conditions in Nijmegen, the examples shown in this chapter all depict the hearing research assistant.[2] However, we also include many transcribed utterances from the spontaneous conversations that were recorded during fieldwork.

3. Possession in Kata Kolok

Section 1 has prefigured the use of pointing signs in the expression of possession and existence in Kata Kolok. Pointing is used to identify both the possessor and the possessed item in a relationship of possession and occurs in both attributive and predicative possession.[3] Moreover, pointing is used in locative and existential expressions – indicating e.g. that *the house is over there* or *there exists a house (over there)*. As we will see, there is substantial overlap between the possessive, locative, and existential meanings of pointing signs. Individual utterances are thus often ambiguous, and the exact meaning can be determined through context only. In addition, Kata Kolok uses a polysemous "thumbs-up" sign for possession and existence in predicative constructions; variations of a hand-waving sign as a negative existential; and juxtaposition in possessive constructions with two nominals, e.g. to express part-whole possessive relationships. This section first describes attributive possession and then predicative possession in Kata Kolok.

---

[2] Since these data elicitation sessions were carried out in the Netherlands, pointing was necessarily "arbitrary", i.e. it did not refer to the real-world locations of the hypothetical referents. However, many of the pointing signs produced in these elicitation sessions (e.g. those in examples (1), (2), and (5)) are produced with outstretched arms, indexing locations that are quite far from the body. Note also that the index finger is directed outward in these pointing signs, and not downward to a location in sign space, as is generally the case for arbitrary pointing. The form of these pointing signs is thus somehow approximating the use of real-world topography to indicate the location of referents without actually doing so. In the conversations that were recorded in Desa Kolok, however, reference to animate and inanimate referents in the village was always absolute. For reference to far-away places (e.g. Europe or Australia) whose absolute locations depend on geographic knowledge that far surpasses the topographical layout of the village and its greater vicinity, villagers point in the direction of the airport.

[3] The relationship between pointing and possession is not unique to Kata Kolok, or to sign language as such. In speech, pointing gestures often accompany possessive constructions. For example, the reference of the third person masculine pronoun in the possessive noun phrase *his dog* can be resolved through an accompanying pointing gesture to the possessor.
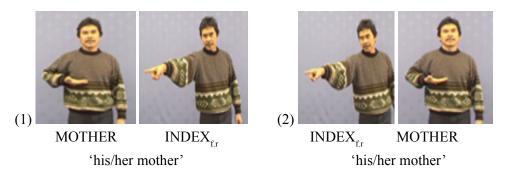
3.1 Attributive possession

Attributive possession expresses the relationship between a possessor and a possessed item (called the possessum) within a nominal phrase. Generally speaking, the possessor can be animate or inanimate, and can be expressed pronominally (e.g. *my house*) or nominally (e.g. *the woman's house* or *the door of the house*). In Kata Kolok, pronominal reference is achieved through the use of index signs (see section 3.1.1 below). Index signs are also used in conjunction with nominal signs in constructions that have nominal possessors. The relationship between a nominal possessor and a nominal possessum is expressed through juxtaposition of the two elements (see section 3.1.2).
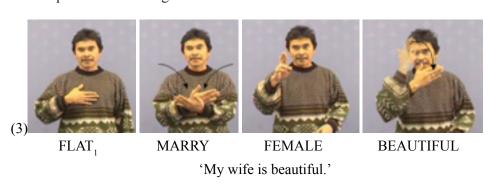
3.1.1 Pronominal possessors

To express pronominal possession like *my husband, her mother,* or *his book*, Kata Kolok uses signs that point to the possessors. The signs are identical in form to those used for simple subject and object pronominal reference (e.g. *he, she*). As described in section 1, Kata Kolok uses a system of absolute pointing. The direction of the pointing signs to indicate the possessor is predominantly determined by the real-world location of the referent. Both alienable and inalienable pronominal possession are expressed by indicating the possessor through pointing (see examples (1) to (5) below).

   As examples (1) and (2) show, pointing signs used for indicating possession may precede or follow the nominal possessum. In addition to index finger points to the chest for first person reference, signers also use flat hands (see example (3)) and open-hand taps (with a bent-B handshape) on the chest. In fact, from the data overall, the impression is that first person reference, in possessive as well as other pronominal constructions, is achieved least often by means of an index finger point. The open-hand tap and the flat-hand forms appear to occur much more frequently.[4] There does not seem to be any difference in meaning between the different forms (compare examples (3) and (4) below). All first person forms occurred both before and after the possessum and all forms could be modulated with respect to duration and frequency (i.e. repeated points or taps) to indicate emphasis or intensity.

---

[4] This observation is at odds with Marsaja (2007: 174), where it is claimed that index finger pointing is more frequent than an open-hand tap or flat hand for first person reference in Kata Kolok. This finding is not corroborated in our data, and the issue cannot be resolved conclusively at this point.

(1)

MOTHER	INDEX$_{f.r}$

'his/her mother'

(2)

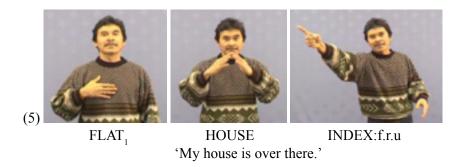| INDEX$_{f.r}$	MOTHER

'his/her mother'

While many sign languages use separate possessive pronouns with a handshape other than the extended index finger, most commonly a flat hand or a fist (cf. contributions in this volume by Lutalo-Kiingi, De Weerdt and Vermeerbergen, and Chen Pichler and Hochgesang), the use of the flat/open hand in Kata Kolok first person pronouns is not exclusively possessive. This is evident from the fact that no functional difference can be found between the different types of first person pronominal pointing, as well as the fact that open/flat hand pointing does not exist with second- or third-person reference.[5] From this, we conclude that Kata Kolok does not have a separate set of possessive pronouns, and that the handshape variation in first-person pronouns is allomorphic in nature. It remains to be determined what conditions the choice of allomorph in context in signed utterances.

(3)

FLAT$_1$	MARRY	FEMALE	BEAUTIFUL

'My wife is beautiful.'

(4)

INDEX$_1$	MARRY	MALE	*sign-name*

'My husband is X.' / 'My husband's name is X.'

---

[5] There also does not seem to be any systematic difference in the use of facial expression or non-manual forms accompanying the use of the different manual forms.

(5)

FLAT$_1$ HOUSE   INDEX:f.r.u

'My house is over there.'

Another interesting observation is that the use of a possessive pronoun is not always obligatory. Generally, ellipsis of pronouns (and nominal referents) is common in Kata Kolok as long as the referent can be recovered from the context, and this applies to pointing signs functioning both as personal and as possessive pronouns. In the absence of any particular context, there seems to be a default interpretation of first person singular. In example (6) from Marsaja (2007: 193), third-person reference in (6a) and (6c) is clear from the context, but in (6b), the first-person reference relies on the default interpretation, since third-person reference for (6b) does not make sense in the context.[6] Context-dependence in the interpretation of pronominal reference is also common in spoken languages, particularly of south-eastern Asia, where the omission of overt deictic reference is often socio-culturally motivated.[7]
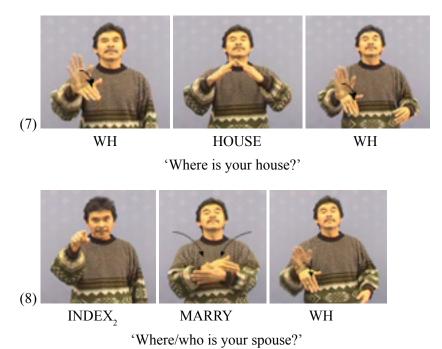
(6a)   MONEY NEG
        '(He) doesn't have money.'

(6b)   REMEMBER NEG
        '(I) don't remember.'

(6c)   HUNGRY EAT NEG
        '(He) has not eaten.'

In a construction lacking a possessive marker, but whose possessive meaning can be pragmatically inferred, the utterance will be interpreted as having a first-person possessor if there are no other contextual clues. However, this is not true of questions, where the default interpretation seems to be second person. In questions, the body leans slightly forward, the eyebrows are raised, and there is eye contact with the addressee (see example (7) below) (cf. Berenz (2002) on Brazilian Sign Language and Meurant (2008) on French Belgian Sign Language on eye gaze as a marker

---

[6] The examples come from a story about a man climbing up a tall coconut tree. Marsaja (2007) uses Balinese glosses as well as English translations. We omit the Balinese glosses for the purposes of this chapter.

[7] Thanks to Bernd Heine for pointing this out.

of second-person reference). These are the characteristic non-manual markers of questions, and they seem to induce a default second-person interpretation in the absence of other contextual clues. Thus, example (7), if uttered in isolation, would automatically receive a second-person interpretation, as is clear from the translation. In example (8), by contrast, there is an explicit second-person pronoun as possessor. The sign glossed as wh in examples (7) and (8) is a general wh-question sign whose interpretation depends on the context. For the translations, one of several possible interpretations has been chosen, but other translations are possible in an appropriate context, e.g. 'What happened to your house?' or 'What does your husband do?'.

(7)

| WH | HOUSE | WH |

'Where is your house?'

(8)

| INDEX$_2$ | MARRY | WH |

'Where/who is your spouse?'

The observations about default interpretations for first- and second-person reference in statements and questions respectively are in line with what Zeshan (2003) claims for Indo-Pakistani Sign Language. The same principle is also found in Turkish Sign Language, as examples (9) and (10) illustrate:

(9)   ANNE BABA IYI
       mother father good
       '(My) parents are well.'

       _____y/n
(10)   ANNE BABA IYI
       mother father good
       'Are (your) parents well?'

3.1.2 Nominal possessors

When both the possessor and the possessum are nominals, e.g. in possessive relationships like *the car's headlights*, Kata Kolok exhibits juxtaposition of the two nouns. In these constructions, as with the pronominals, the word order is variable. In part-whole relationships, in particular, the possessum (i.e. a specific part of the whole) may both precede and follow the possessor (see example (11) below). However, as mentioned above, pointing signs also occur to mark the location (or the existence at a location) of either the possessor or the possessed item in such constructions. Thus, a pointing sign can precede and/or follow the animate or inanimate nominal possessor or possessum in order to uniquely identify it (see examples (12a), (12b) and (13) below).
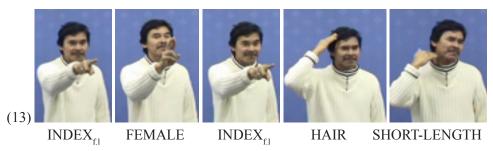
(11)

LIGHT   CAR   LIGHT   FINISH

'The car's headlights are broken.'

(12a)

INDEX:f.r   SLEEP/BED   CHILD

'That is the child's bed.' / 'That is where the child sleeps.'

(12b)

CHILD   SLEEP/BED   INDEX:f.r

'The child's bed is that one there.' / 'The child sleeps there.'

(13)

| INDEX$_{f.l}$ | FEMALE | INDEX$_{f.l}$ | HAIR | SHORT-LENGTH |

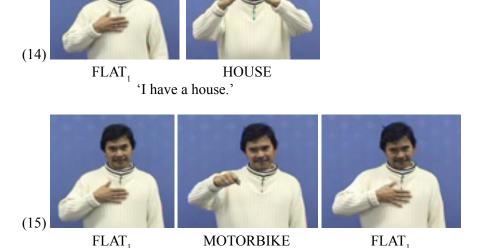'That woman's hair is short.' / 'That woman there has short hair.'

As the translations of the examples show, there is often no clear delineation between attributive and predicative possession, and often several translations are equally possible. This lack of clear differentiation between semantically-related constructions is a recurring issue in the Kata Kolok data, as already mentioned in section 1, and the same patterns of systematic ambiguity can be found in predicative possession (see section 3.2 below). It is interesting to note that the Adamorobe Sign Language data on possession (Nyst, this volume) pose similar challenges to a linguistic analysis of the constructions in question, given the lack of overt marking beyond mere juxtaposition in addition to the semantic ambiguity. However, this does not mean that systematic ambiguity of this kind is necessarily characteristic of all sign languages in village communities, or that the same does not occur in other signed or spoken languages. In fact, what we see in Kata Kolok seems quite similar to some of the data from Riau Indonesian discussed in Gil (2005). The claim there is that Riau Indonesian has a syntactic operation joining two juxtaposed elements, where any kind of semantically feasible relationship can hold between the two lexemes. For instance, juxtaposition of the lexemes meaning 'chicken' and 'eat' can have a number of possible interpretations, including 'someone eating chicken', 'the chicken eating something', and 'the chicken's food'. This range of possible translations, including possessive interpretations, is quite similar to what we see in Kata Kolok, e.g. in (12) and (13) above.

3.2 Predicative possession

Kata Kolok has several different constructions that relate a possessor to possessed items, equivalent to the use of *have* in English, as in *I have three children*. The simplest of these involve juxtaposition (see 3.2.1 below), which can be extended to include a quantifier or modifier (see 3.2.2). In addition, a sign originally meaning 'good' has grammaticalised to express both existence and possession in Kata Kolok (see 3.2.3). Kata Kolok can also associate possessed items to their possessors through a type of topicalisation structure, which bears similarity to the use of *belong* in English, as in *This car belongs to me* (see 3.2.4).

3.2.1 Juxtaposition

The most basic possessive pattern in Kata Kolok is juxtaposition of the possessor and the possessum. This is typically found with pronominal possessors, as in (14) and (15) below.

(14)

FLAT₁   HOUSE
      'I have a house.'

(15)

FLAT₁   MOTORBIKE   FLAT₁
      'I have a motorbike.'

As mentioned above, simple juxtaposition is also used within possessive NPs, and thus attributive and predicative possession essentially have the same form in Kata Kolok (cf. example (13) above). It is possible that non-manual features may serve as cues to distinguish between the interpretation of an utterance as predicative possession ('I have a house') or attributive possession ('my house'), but we were unable to confirm this at this stage. In addition, pragmatic factors related to the context of the utterance may help signers distinguish between predicative or attributive possession. As with attributive possession, word order is variable with respect to pronominal pointing (cf. section 3.1.1 above).

Inasmuch as pointing is involved in these constructions to identify the possessor, the juxtaposition construction overlaps with expressions of location in Kata Kolok. Compare the two questions in (16) and (17):

                                  y/n
(16)   COW point-to-location
        'Is the cow over there?' / 'Are there cows over there?'
                                         y/n

(17)   COW point-to-third-person-possessor
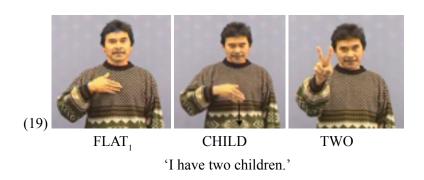   'Does s/he have (a) cow(s)? Is it her/his cow?'

However, this does not mean that we are dealing with a typical locative possessive construction as found in many spoken languages. In spoken language typologies of possession, the 'locational possessive' is one of five major types (Seiler 1983; Heine 1997; Stassen 2001, 2005). In essence, it specifies a locational relation between the possessor and the possessum by marking the possessor with an item meaning 'at', 'on' or 'in'.

(18)   *na-dur morin   bui*   (Written Mongolian, Stassen 2005)
        1sg-at horse   be.3sg.pres   (from Poppe 1954: 147)
        'I have a horse.'

As example (18) shows, the possessum (the horse), which is the grammatical subject of the verb of existence, is specified as being 'at' the location of the first person possessor, through oblique marking on the pronoun. The pattern in Kata Kolok, e.g. in examples (15) and (17) above, is different from a true locative possessive construction because the possessum's location is not specified as being at the same location as the possessor, as is the case in Mongolian. Instead, the possessor is identified through pointing in the same way that referent locations can be specified through pointing. It is only in this sense that the juxtaposed possessive construction in Kata Kolok has an affinity with the locational possessive.

3.2.2 Predicative quantifier/modifier construction

This construction is an extension of the most basic possessive construction and adds a further specification to the possession rather than merely indicating possessor and possessum. Following work by Hengeveld (1992), we refer to this as the predicative quantifier/modifier construction. This construction occurs frequently in Kata Kolok, particularly with numbers and other quantifiers, and there are many more examples of this type in the data corpus than of the previous, more basic type of possession.

(19)

FLAT₁   CHILD   TWO

'I have two children.'

(20)   INDEX₁ CHILD THREE FEMALE ALL FEMALE
        'I have three children. They are all girls.'

(21)   COW FLAT$_1$ FIVE
        'I have five cows.'

(22)   INDEX$_1$ HOUSE BIG
        'I have a big house.'

(23)   TOURIST MONEY A-LOT
        'Europeans have a lot of money.'

As in the basic juxtaposition construction, there is no dedicated morpheme here to indicate the possessive relationship. However, the construction as a whole clearly has a possessive interpretation in all the above examples.[8] With respect to clause structure, however, there again seems to be ambiguity here with respect to either attributive or predicative possession. Translations into English could involve, with equal plausibility, either a possessive NP (e.g. *My house is big; My children are all girls; My cows are five in number*) or predicative possession (e.g. *I have a big house; I have three daughters; I have five cows*).

3.2.3 THUMB-UP for possession and existence

In addition to the constructions that have already been discussed, Kata Kolok uses a sign that we gloss here as THUMB-UP to express predicative possession (see example (24)). The sign is one of many gestures used by the hearing community that has become lexicalised in Kata Kolok. In the hearing community it has emblematic status and can be used with or without a co-occurring item in speech. It is glossed by Marsaja (2007: 215) as LUWUNG with the meaning 'good', that is, 'to praise or to say that somebody/something is nice/good'.

(24)

        THUMB-UP

The Kata Kolok data that we have analysed here indicate that the THUMB-UP sign, which always occurs clause-finally, is highly polysemous in Kata Kolok. The meaning 'good', which the gesture has in the hearing community, is only one of

---

[8] We do not pursue a construction grammar approach here (cf. Goldberg 1995; Kay 1995) to argue whether, in the absence of a dedicated possessive morpheme, the possessive meaning should be ascribed to the construction as a whole. This question is beyond the scope of this chapter.

many meanings which the co-opted sign has in the deaf community. Other uses include indicating or affirming a state of affairs ('it is that way') as in example (25); signifying 'strong, healthy' in relation to people as in example (26); and, most importantly for the purposes of this chapter, expressing possession and existence as in example (27).

(25)   DEAF INDEX$_{+++(distr)}$ ALL WANT DRINK THUMB-UP
        'The deaf all want to drink, (that's the way it is).'

_____y/n
(26a)   IX$_2$ CHILD
        'Do you have (a) child(ren)?'

(26b)   IX$_1$ ONE
        'I have one (child).'

_____y/n
(26c)   IX$_2$ CHILD THUMB-UP
        'Is your child well (strong/healthy)?'

(26d)   (IX$_1$) THUMB-UP
        'Yes, (my child) is well (strong/healthy).'

(27)   RIVER INDEX$_{f.r}$ FISH THUMB-UP
        'There are fish in the river there.' / 'The river there has fish.'

Before we go into details of the use of THUMB-UP in possessive constructions, a few general observations are in order. In contrast to the original LUWUNG ('good') use of the sign, many of the secondary uses make no value judgment. For example, the utterance in (25) does not indicate whether drinking is good or bad; it simply states that this is the case. Although the THUMB-UP sign in such utterances can be modulated, through tenseness and speed of the sign movement and facial expression to express emphasis and intensity, this does not necessarily mean 'very good', 'better', 'excellent', or the like; instead, it could just be an emphasis of one of the other functions of 'good', e.g. 'this is really the case', 'it really is there', etc. It is possible that the secondary uses of THUMB-UP, e.g. its existential/possessive functions, tend to have a more lax articulation and shorter duration, and accompanying facial expressions may also provide clues to the sign's intended meaning, but these details need further research.

    Utterances with THUMB-UP are often potentially ambiguous, especially in isolation, and can have both the original value judgment meaning and the secondary, more abstract meaning. For instance, example (27) could also mean that the river is a good place for fishing, or that it has particularly nice fish in it, or that having fish in that river is a positive thing. It is not clear at this point whether, in addition to the

clearly crucial context of the utterance, there are also formal cues in the articulation of the sign that could help disambiguate its meaning.
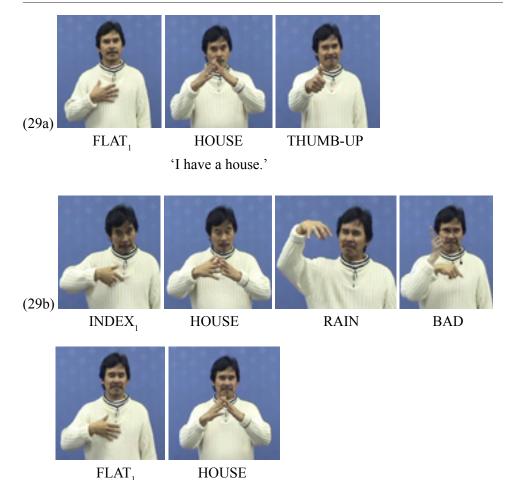
In the remainder of this section, we turn to a more detailed analysis of THUMB-UP used as an existential/possessive marker. From the existing data, it is clear that the THUMB-UP sign has undergone a grammaticalisation process. Grammaticalisation is a process whereby lexical morphemes become grammatical morphemes (cf. Heine 1997; Hopper and Traugott 1993; etc.). Often this takes the form of an independent word with a lexical meaning becoming an affix with a grammatical function, but the new grammatical morpheme can also maintain its status as an independent word. For example, the negative morpheme *pas* in the French negation *ne…pas* goes back to a word meaning 'a step, a stride' (which in turn comes from Latin *passus* 'step'). THUMB-UP in Kata Kolok has also maintained its status as an independent word.

One of the most important changes during the process of grammaticalisation is the loss of semantic content and/or a semantic shift, which enables the sign to move away from its concrete meaning and express abstract grammatical functions. This process, generally known as desemanticisation, is clearly evident in the THUMB-UP sign. It is also typical of grammaticalisation processes that a certain degree of ambiguity between the original concrete function and the new grammatical function persists in some utterances, and again, as explained above, this is true of THUMB-UP in Kata Kolok. The utterance in (27) can be regarded as a bridging context, where semantically, THUMB-UP may feature aspects of both a lexical and a grammatical interpretation. However, there are other contexts where the literal meaning of THUMB-UP has clearly been lost, and the only possible interpretation in the given context is an existential or a possessive interpretation. This is the case in examples (28) to (30) below.

(28a)   FLAT$_1$ FATHER HAIR THUMB-UP
          'My father (that is, the father in my picture) has got hair.'

(28b)   FLAT$_1$ FATHER HAIR NEG
          'My father (that is, the father in my picture) doesn't have any hair.'

Example (28) comes from a dialogue between two participants playing the picture comparison game; in one of the pictures, the father is nearly bald, whereas he has hair in the other picture. The contrast with the negative in the context makes it clear that THUMB-UP in (28a) has a possessive interpretation (see section 3.3 for details about the expression of negative possession in Kata Kolok).

Examples (29) and (30) are even clearer with respect to the meaning of THUMB-UP in the initial utterance. Since the subsequent utterances (29b), (30b) and (30c), predicate something that is very negative, THUMB-UP in the first utterances, (29a) and (30a), cannot possibly have a literal meaning of 'good'.

(29a)

FLAT$_1$	HOUSE	THUMB-UP

'I have a house.'

(29b)

INDEX$_1$	HOUSE	RAIN	BAD

FLAT$_1$	HOUSE

'My house is in bad condition; rain gets inside; it's in a bad condition, my house.'

(30a)   FLAT$_1$ MARRY FEMALE THUMB-UP
         'I have a wife.'

(30b)   FEMALE INDEX$_1$ CRAZY
         'My wife is crazy.'

(30c)   TALK$_{l.r.l}$ CRAZY
         'She talks crazy.'

The most intriguing aspect in the development of THUMB-UP towards a possessive marker is that this particular semantic shift is not one of the common developments found in many languages. Such recurring developments are known as 'grammaticalisation channels', and both the locative-to-possessive and the existential-to-possessive developments are evidence of this, since they can be found in many unrelated languages, both signed and spoken. However, the development from a

sign meaning 'good' to a marker of existence and possession is, to the best of our knowledge, not attested in any other sign language, and also does not seem to be common in spoken languages. In Heine (1997), the semantics of 'good' does not appear as one of the major sources for possessive constructions. It seems, therefore, that Kata Kolok has cultivated a rather unique pathway in its development of predicative possession.[9]

3.2.4 'Belong' construction

More data and analysis is needed in order to determine whether Kata Kolok has a separate construction that may be construed as a 'belong' construction. The main difference between a 'have' construction and a 'belong' construction lies in the construal of the possessive relationship. The 'have' construction starts from the point of view of the possessor who possesses certain (typically indefinite) items, as in *John has a book.* By contrast, the 'belong' construction starts from the possessed item, and is typically in the form of a definite NP whose possessor is identified in the utterance, e.g. *The book belongs to John.*

In the data available to us for the purposes of this chapter, there were some sentences that suggest that a type of topic construction might be involved in a 'belong' construction in Kata Kolok. In the examples below, the possessed NP appears in what may be a topicalised position. It may be that this construction appears mainly in contrastive contexts, as in (31) and (33).

(31)   INDEX$_{d.r}$ BOOK FLAT$_1$, INDEX$_{d.f}$ BOOK TEACHER FLAT$_1$
         SCHOOL
         'That book (there) belongs to me; that book (there) belongs to the teacher
         at my school.'

(32)   INDEX$_{d.f}$ BOOK FLAT$_1$ CHILD
         'That book (there) belongs to my child.' (Or: 'That is my child's book.')

(33)   COW TWO INDEX$_f$ INDEX$_{f.r}$, INDEX$_f$ *SIGN NAME1*
         INDEX$_{f.r}$ *SIGN NAME$_2$* COW
         'There are two cows, here and here. This one belongs to X, and this one
         belongs to Y.'
         (Or: 'As for these two cows, here and here, this one belongs to X and this
         one belongs to Y.')

---

[9] If one considers the possible uses of the emblematic "thumbs-up" gesture (certainly in Western cultures), it seems clear that the gesture can be used not only to convey the meaning "It's good", but also for meanings like "I've got it" or "It's here", depending on the context. Thus, in considering the path of grammaticalisation of the THUMB-UP sign in Kata Kolok, we must consider the modality from which the sign's meaning originated. Grammaticalisation from a lexeme meaning "good" into a form expressing possession may be rare in spoken languages, but may be much less so from the point of view of meaning co-opted from an emblematic gesture.

If this is indeed a topic-like construction, it differs from the 'topic possessive' construction found in spoken languages. In languages that use a topic construction to express predicative possession, it is the possessor NP that is construed as the topic of the sentence, as in the Tondano example below (Stassen 2005).

(34)   *si*   *tuama si* *wewean wale* *rua*   (Tondano, Stassen 2005)
      ANIM.SG man TOP exist   house two   (from Sneddon 1975: 175)
      'The man has two houses.' (lit. 'As far as the man is concerned, there are two houses.')

We have not investigated the details of non-manual marking in these putative topicalised constructions in Kata Kolok, so it remains to be seen if these preliminary observations can be substantiated by further data. However, both constituent order (with the possessum at the beginning of the clause) and the use of pointing to indicate definiteness certainly seem to play a role in the above examples. The use of pronominal index pointing to mark definiteness is very widespread in sign languages (e.g. Zimmer and Patschke 1990).

3.3 Negative existence/possession

There are two signs in Kata Kolok that are used to express negative existence/possession: one we gloss as NEG, the other as FINISH. Marsaja (2007) uses the gloss SING for what we call NEG (using the Balinese word for 'not'). He discusses several different functions of NEG as a the basic clause negator, including negation of the verb only, negation of a pronominal (conveying the meaning 'nobody'), and expression of a negative imperative (as in 'Don't!'). In addition, he notes its functions as a possessive negator that negates the relationship of possession between the possessor and the possessum, and as a negative existential meaning 'there is not…any' ('does not exist'). Examples (35) and (36) show the use of NEG as a basic clause negator and as a possessive negator.

(35)   INDEX$_1$ HIT NEG
      'I didn't hit him.'

(36)   CLOTHES INDEX$_1$ NEG
      'I don't have any clothes.'

The sign FINISH appeared in example (11) in section 3.1.2 above, and as can be seen from the translation of this example (i.e. 'the car's headlights are broken'), the sign is not only used as a negative. In fact, and as is suggested by its gloss, it occurs most frequently as a discourse marker signalling the end of an utterance or paragraph. FINISH in this function often occurs as a one-word utterance on its own, but also occurs at the end of a clause, as in (37) and (38).

(37)   SIGN-TALK FINISH
'They talked.'

(38)   INDEX$_{f,far}$ FEMALE TAKE-PHOTO$_{+++(distr)}$ FINISH
'The woman took photos here and there.'

The expression of negative existence and possession is one of the sub-functions of the signs NEG and FINISH. Like THUMB-UP, both signs are multifunctional and occur clause-finally. In clauses expressing negative possession and existence, they seem to be interchangeable in most contexts. Thus, examples (39) and (40) are equally possible negative possessive clauses in Kata Kolok:

(39)   INDEX$_{f.r,far}$ HOUSE TOURIST INDEX$_{f.r,far}$ RICE NEG-EXIST

(40)   INDEX$_{f.r,far}$ HOUSE TOURIST INDEX$_{f.r,far}$ RICE FINISH
'In Europe, they don't have rice.'
(in the sense of: In Europe, they don't cultivate rice)

It is tempting to assume that FINISH in the above example could have an additional aspectual meaning component equivalent to English 'not any more', and this would follow in a straightforward way from the original core semantics of FINISH. There are indeed a few examples where the use of FINISH for negative possession and existence seems to imply that X has been used up, or that X used to exist, but does not anymore. However, in general we were not able to substantiate this hypothesis, and it is not clear at this stage whether there is any meaning difference in sentence pairs such as (39) and (40) above.

4. Conclusion

This chapter has described the signs and constructions used to express possession and existence in Kata Kolok. The language has many constructions in which there is no dedicated morpheme to express possession. Instead, it uses pointing, juxtaposition, and the signs THUMB-UP, NEG, and FINISH to indicate possession. Frequently, there is no obvious distinction between attributive and predicative possession in Kata Kolok, making possible several different interpretations.

Pointing is used to identify both the possessor and the possessed item in a possessive relationship, and occurs in both attributive and predicative possession, as well as in locative and existential expressions, whose meanings may overlap with possessive meanings. However, Kata Kolok does not exhibit locative possession, since the possessum's location is not specified as being at the same location as the possessor. Rather, pointing signs indicate the (actual) location of a possessor or possessum. They are used to establish pronominal reference, as well as in conjunc-

tion with nominal signs in constructions that have nominal possessors. Kata Kolok does not feature a separate set of possessive pronouns; the handshape variation in first-person pronouns is allomorphic.

Moreover, Kata Kolok uses several different 'have'-like constructions to relate a possessor to its possessum. The first of these is juxtaposition, which can express the relationship between a nominal possessor and a nominal possessum, e.g. a part-whole possessive relationship. Juxtaposition can also be extended to include a quantifier or modifier. The other 'have'-like constructions involve the signs THUMB-UP, NEG, and FINISH. These three signs are generally polysemous and ambiguous. Individual utterances are thus often ambiguous, and the exact meaning can be determined through context only. The sign THUMB-UP is used for possession and existence in predicative constructions. Interestingly, THUMB-UP is derived from a sign meaning 'good', but has grammaticalised into a marker of existence and possession. This phenomenon has not been documented in other sign languages, and is uncommon in spoken languages. In contrast, NEG and FINISH, variants of a hand-waving sign, are used to express negative existence. NEG is used as a basic clause negator and possessive negator, while the sign FINISH is used to show negation as well as to mark the end of an utterance or piece of discourse, occurring as a one-word utterance on its own, or clause-finally.

Further analysis is required in order to establish whether Kata Kolok has a separate 'belong' construction. In this chapter, we presented some sentences that suggest Kata Kolok may have a 'belong' construction where the NP appears in a topicalised position in what is generally a contrastive construction. More investigation of non-manual features may shed light on this issue. Likewise, future study of facial expressions may help to determine whether the existential and possessive uses of THUMB-UP are shorter in duration and more relaxed in articulation compared with the other uses of this sign.

References

Berenz, N. (2002). Insights into person deixis. *Sign Language and Linguistics* 5: 203-27.

Changkakoti, N., Abbiati, M., Dasen, P., Foy, H., and S. Niraula (2005). Geocentric gestures as a research tool. Conference poster available at http://www.unige.ch/fapse/SSE/teachers/dasen/home/pages/doc/gestures3.pdf.

Engberg-Pedersen, E. (1993). *Space in Danish Sign Language: The Semantics and Morphosyntax of the Use of Space in a Visual Language.* Hamburg: Signum Press.

Gil, D. (2005). Word order without syntactic categories: how Riau Indonesian does it. In: Carnie, A., Harley, H. and S. A. Dooley (Eds.), *Verb First: On the Syntax of Verb-Initial Languages*. Amsterdam: John Benjamins, pp. 243–63.

Goldberg, A. (1995). *Constructions: A Construction Grammar Approach to Argument Structure.* Chicago: University of Chicago Press.

Heine, B. (1997). *Possession: Cognitive Sources, Forces, and Grammaticalization*. Cambridge: Cambridge University Press.

Hengeveld, K. (1992). *Non-Verbal Predication: Theory, Typology, Diachrony*. Berlin: Mouton de Gruyter.

Hopper, P. J., and E. C. Traugott (1993). *Grammaticalization*. Cambridge: Cambridge University Press.

Kay, P. (1995). Construction Grammar. In: Verschueren, J., Östman, J. and J. Blommaert (Eds.), *Handbook of Pragmatics*. Amsterdam and Philadelphia: John Benjamins, pp. 171-7.

Klima, E. and U. Bellugi (1979). *The Signs of Language*. Cambridge, MA: Harvard University Press.

Lillo-Martin, D. and E. Klima (1990). Pointing out differences: ASL pronouns in syntactic theory. In: Fischer, S. and P. Siple (Eds.), *Theoretical Issues in Sign Language Research 1: Linguistics*. Chicago: University of Chicago Press, pp. 191-210.

Levinson, S. C. (1996). Frames of reference and Molyneux's question: Cross-linguistic evidence. In: Bloom, P., Peterson, M., Nadel, L. and M. Garrett (Eds.), *Language and Space*. Cambridge, MA: MIT Press, pp. 109-69.

Levinson, S. C. (2003). *Space in Language and Cognition*. Cambridge: Cambridge University Press.

Liddell, S. K. (1990). Four functions of a locus: Re-examining the structure of space in ASL. In: Lucas, C. (Ed.), *Sign Language Research: Theoretical Issues*. Washington, DC: Gallaudet University Press, pp. 176-98.

Marsaja, G. (2007). *Desa Kolok – A Deaf Village and its Sign Language in Bali, Indonesia*. Nijmegen: Ishara Press.

Meurant, L. (2008). The Speaker's Eye Gaze: Creating Deictic, Anaphoric, and Pseudo-deictic Spaces of References. In: de Quadros, R.M. (Ed.), *Sign Languages: Spinning and Unraveling the Past, Present and Future.* TISLR 9, forty-five papers and three posters from the Theoretical Issues in Sign Language Research Conference, Florianopolis, Brazil, December 2006. Petropolis, Brazil: Editora Arara Azul. (http://www.editora-arara-azul.com.br/EstudosSurdos.php)

Pederson, E., Danziger, E., Wilkins, D., Levinson, S. C., Kita, S., and G. Senft (1998). Semantic typology and spatial conceptualization. *Language* 74(3): 557-89.

Poppe, N. (1954). Grammar of Written Mongolian. *Porta Linguarum Orientalium* 1. Wiesbaden: Otto Harrassowitz.

Seiler, H. (1983). *Possession as an Operational Dimension of Language*. Language Universals Series 2. Tübingen: Narr.

Sneddon, J. (1975). *Tondano Phonology and Grammar*. Canberra: ANU.

Stassen, L. M. H. (2001). Predicative possession. In: Haspelmath, M., König, E., Oesterreicher, W. and W. Raible (Eds.), *Language Typology and Language Universals*. Berlin: Mouton de Gruyter, pp. 954-960.

Stassen, L. M. H. (2005). Predicative possession. In: Haspelmuth, M., Dryer, M., Gil, D. and B. Comrie (Eds.), *The World Atlas of Language Structures*. Oxford: Oxford University Press, pp. 474-477.

Wassmann, J. and Dasen, P. R. (1998) Balinese spatial orientation. Some empirical evidence for moderate linguistic relativity. *Journal of the Royal Anthropological Institute* 4: 689-711.

Wassmann, J., and P. R. Dasen (2006). How to orient yourself in Balinese space: Combining ethnographic and psychological methods for the study of cognitive processes. In: Straub, J., Seidemann, D., Kölbl, C. B. and Zielke (Eds.), *Pursuit of Meaning: Advances in Cultural and Cross-Cultural Psychology*. Bielefeld: Transcript (3-89942-234-1). London: Transaction Publishers, pp. 351-76.

Zeshan, U. (2003). Indo-Pakistani Sign Language grammar: A typological outline. *Sign Language Studies* 3(2): 157-212.

Zimmer, J. and C. Patschke (1990). A class of determiners in ASL. In: Lucas, C. (Ed.), *Sign Language Research: Theoretical Issues* (Proceedings of the International Conference, Theoretical Issues in Sign Language Research, II, May 18-21, 1988 at Gallaudet University). Washington, DC: Gallaudet University Press, pp. 201-10.

ACKNOWLEDGEMENTS