Form, function, and the grammaticalisation of completive markers in the sign language varieties of Solo and Makassar

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This paper presents findings from a corpus-based study of grammatical expressions of completion in the urban sign language varieties of Solo and Makassar. In both varieties, the completive aspect can be marked by at least four particles, which may cliticise, and also by silent imitation of the lip pattern of a spoken language word (mouthings). These forms have several different functions, at the sentence level, the discourse level and the interaction level, and are typified by form-function asymmetry. Attention is drawn to interesting similarities both with varieties of spoken Indonesian, and with other sign languages. However, the presence of so many forms of the completive marker is not widely attested across sign languages, and some thoughts are shared as to the possible grammaticalisation sources of these forms.

1. Introduction[1,2]

Compared with many of the world's sign languages, very little research has been conducted on sign language varieties in Indonesia. Much is now known about Kata Kolok, a village sign language in the Buleleng regency of Bali (Branson, Miller and Marsaja 1996, Marsaja 2008, de Vos 2012a), but there has been no robust linguistic research on Indonesia's urban sign language varieties.[3] It is likely that urban sign language varieties have existed in Indonesia for at least 80 years, and possibly longer, although there is little evidence of where and how they have been used. The earliest schools for deaf children were founded by Dutch missionaries in Bandung, West Java in 1930, and Wonosobo, Central Java, in 1938.[4] As far as we know, these missionaries did not use sign language, since oral education methods were strongly favoured in the Netherlands at the time, and use of sign language was officially forbidden. The only known link between modern-day Indonesian sign language varieties and the Netherlands is a manual alphabet, which seems to have been introduced to Indonesia by the missionaries. Despite the proscription of sign language in the classroom, sign language varieties were used by deaf children, and developed through contact. Today, sign

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[3] Kata Kolok is not known to be related to Indonesia's urban sign language varieties.

[4] The information presented in this section is described in detail in Palfreyman (forthcoming).

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language users gather in most, if not all of Indonesia's urban centres, and usually acquire sign language from other deaf children at school.

In this paper I present a corpus-based study of completive markers, focusing on the forms and functions of these markers in the urban sign language varieties of Solo and Makassar.[5] Solo was chosen because of my familiarity with the Solonese sign community, and Makassar was chosen for its potential as an optimally distinct variety: members of the deaf community in Jakarta, who have had contact with deaf people from several different parts of Indonesia, mentioned the sign language variety of Makassar as being notably dissimilar from their own. There has been little if any direct contact between the deaf communities in these two cities, but considerable indirect contact. Over the past 80 years, an extensive, fluid social network has developed, encompassing deaf communities of sign language users in many parts of Indonesia. This network has emerged as a result of deaf boarding schools, economic migration, sports events, deaf organisation and, recently, through innovation such as 3G mobile phone technology (see Palfreyman forthcoming for more details).

The grammatical domain of completion has been researched quite extensively in several sign languages.[6] The task of describing aspectual categories is notoriously complex (Dahl and Velupillai 2011) and there is often considerable overlap between completive, perfective and perfect aspect (Singler 2004), although subtle differences may be seen between them. The term *completion* is used in this paper to indicate 'the completedness of an action' (Zeshan 2003). Although aspectual distinctions in sign languages are often marked morphologically by changing the movement of a sign, completion is marked somewhat differently: particles are by far the most common way of marking completion (Zeshan 2003:49), although at least two other strategies have been reported. In Turkish Sign Language, some verbs can be modified to indicate completion by using a different movement path (Zeshan 2003) or by adding a mouth gesture (Dikyuva 2011). The manual completive in Kata Kolok is also accompanied by a mouth gesture – a loud lip-smack – which may be used by itself with a lexical predicate (de Vos 2012a:116).

At this point, some brief explanation concerning mouth actions is needed. Sign languages have at least two different types of mouth actions, which are generally referred to as *mouthings*, and *mouth gestures* (Boyes Braem and Sutton-Spence 2001). Mouthings derive from spoken languages, and are silent representations or imitations of words seen on the lips of spoken language users, with whom deaf signers interact daily. Mouth gestures do not correspond to the mouth movements of speech, but develop within sign languages. In sign linguistics, the *scope* of a mouth action refers to all manual signs that the mouth action is co-extensive with. Thus the scope of a mouth action may range from a

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[5] To date, not enough research has been conducted to know whether these varieties would be better referred to as 'Solonese Sign Language' and 'Makassarese Sign Language', either on linguistic or socio-political grounds. The findings presented here are part of a larger project which aims to document variation between the two varieties in the semantic domains of number, colour and kinship terms (Palfreyman 2014) and the grammatical domains of completion and negation (Palfreyman forthcoming).

[6] Expressions of the perfect, completive and/or perfective aspects have been described in varying levels of detail for American Sign Language (Fischer & Gough 1999, Rathmann 2005), Australian Sign Language (Johnston et al. 2013), British Sign Language (Sutton-Spence & Woll 1999), Finnish Sign Language (Salonen 2011), Hong Kong Sign Language (Tang 2009), Indo-Pakistani Sign Language (Zeshan 2000), Israeli Sign Language (Meir 1999), Italian Sign Language (Zucchi 2009), Kata Kolok (de Vos, 2012b), Turkish Sign Language (Zeshan 2003) and Ugandan Sign Language (Lutalo-Kiingi in prep.).

single sign to an entire clause, and is indicated in the examples below by the length of the underscore on the 'mouthing' tier (see Section 6: Transcription Conventions).

Completive markers in sign languages have been found to exhibit a range of functions. Fischer and Gough (1999) note that the sign FINISH in American Sign Language (ASL) can function as a main verb, a past-participle adjective, an adverb, and a sort of auxiliary verb.[7] FINISH can also mark perfective action, take on a subordinating function, or mean 'that's all' or 'that's enough'. Further, it has been argued that there is a relationship between the function and syntactic slot occupied by this sign. Rathmann (2005) holds that pre-verbal FINISH indicates perfect aspect, while post-verbal FINISH indicates perfectivity.

For the corpus on which this research is based, 40 informants were filmed in dyads, triads and tetrads engaged in spontaneous conversation, mostly on the premises of a local deaf organisation (Solo) and a deaf-run donut café (Makassar). Ninety minutes of data were transcribed from each city, with informants broadly balanced in terms of age and sex. Data were glossed with the support of deaf research assistants from each community, as part of a long-term partnership with both deaf communities.[8]

2. Formal expressions of completion in Solo and Makassar

2.1 Four completive particles

Four forms that express completion occur widely in the data. These are glossed accordingly, and shown in Figure 1. SUDAH1 has a flat handshape, with a quick change in orientation created by a twist of the wrist; the sign ends with the palms facing away from the body, although the exact orientations are underspecified. SUDAH2 has a flat handshape, but the change in orientation is slower, and the twist in the wrist is in the opposite direction to SUDAH1; the final position is palm-up. SUDAH3 has a flat handshape facing away from the signer, and requires a push forward from the body. SUDAH4 has a 'thumbs up' handshape and may involve a push forward. All forms can be one or two-handed. An example from the corpus is shown for each form in (1)-(3).

Two of these forms – SUDAH1 and SUDAH2 – are formally similar to completive markers in other sign languages. A form similar to SUDAH1 is found in the unrelated sign languages of American Sign Language (Rathmann 2005), British Sign Language (Sutton-Spence and Woll 1999) and Indo-Pakistani Sign Language (Zeshan 2000), for example, while SUDAH2 is similar to the completive in Kata Kolok (de Vos 2012a). The other two forms are much less common cross-linguistically as completive markers.

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[7] In accordance with the literature on sign linguistics, I follow the convention of glossing signs with upper case letters, using words from a relevant written language – in this case, Bahasa Indonesia – which have meanings that come closest to the meanings of the sign. Section 6 describes the transcription conventions that are used in this paper.

[8] I have been working with the deaf community in Solo since 2007, and in Makassar since 2010 – initially as an international development volunteer, and subsequently as an academic – with the aim of empowering the Indonesian deaf community through sign language documentation and the development of metalinguistic awareness by sharing knowledge and skills about sign language.

SUDAH1   SUDAH2

SUDAH3   SUDAH4

Figure 1.

The four completive forms used in the sign language varieties of Solo and Makassar. (model: Oktaviani Wulansari).

(1)   <u>sudah</u>   [Solo]

RUMAH PAKAI-JILBAB SUDAH2 | **MERIAS-WAJAH   SUDAH4**
HOUSE   PUT-ON-JILBAB SUDAH2 | PUT-ON-MAKE-UP SUDAH4

'In the house I put on my jilbab and then my make up…'

(2)   <u>sudah</u>   [Makassar]

MAKAN SUDAH1
EAT   SUDAH1

'[We] finished eating…'

(3)   <u>hilang</u>   [Solo]

KARTU BERI SUDAH3 | **HILANG TANGGUNG-JAWAB-SENDIRI**
CARD   GIVE SUDAH3 | LOST   RESPONSIBILITY-SELF

'We give them a card. If they lose it, that's their responsibility.'

2.2 The cliticisation of completive forms

All four completive forms used in Solo and Makassar are able to cliticise to a host as enclitics.[9] There are several indications of clitic status, and these include elision of a phonological segment, assimilation with the location of the previous sign, a hold in one hand of the previous sign, and the spread of the mouthing to bind the clitic to the host, all of which have the effect of reducing the duration of the completive marker.

In (4), both the pronoun and the completive particle are one-handed, and the first segment of SUDAH2 is elided: there is no twist of the wrist from palm-down to palm-up. Instead, the signer moves straight from the pronoun to the final hand position of SUDAH2, which is palm-up. Phonologically, this reduces articulatory effort, since articulation using

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[9] Completive particles are known to cliticise to a host in some other sign languages too, including Ugandan Sign Language (Lutalo-Kiingi in prep.) and ASL (Fischer & Gough 1999). See Sandler (1999, 2000) and Zeshan (2002) for a discussion of cliticisation in sign languages.

citation forms would involve a twist 180° in one direction followed immediately by a second 180° twist in the opposite direction. Elision of the first segment of SUDAH2 enables a quicker transition, and cliticises the completive to the pronoun.

(4)   sudah   mampir   [Solo]
   PT:PRO1   MAMPIR   PT:PRO1=SUDAH2
   PT:PRO1   CALL-ROUND PT:PRO1=SUDAH2
   'I have already called round [to his house].'

Another indicator of clitic status is assimilation, whereby the completive particle assumes the location of the previous sign.[10] In (5), the clitic and its host (the second articulation of BELI, 'buy') share the same location outside the neutral signing space, where spatially unmodified signs are usually located, as shown in Figure 2. In (6) the sign PULANG ('go home') begins in the neutral sign space and ends outside the signing space. In both cases, the placement of the completive sign in the location of the previous sign facilitates ease of articulation, because the hands do not have to return to the neutral space before the completive form is articulated.[11]

(5)   besok   beli+   beli+   sudah   [Mksr]
   BESOK   BELI   PAKAIAN-SERAGAM   BELI$_x$=SUDAH2$_x$
   TOMORROW   BUY   UNIFORM   BUY$_x$=SUDAH2$_x$
   'The next day the uniform was bought there, and then…'

Figure 2. The signs BELI (left) and the completive SUDAH2 (right), which is articulated in the same location, outside the neutral signing space (model: Iksan Djamaluddin).

(6)   pulang   [Solo]
   PULANG$_y$=SUDAH2$_y$
   GO-HOME$_y$=SUDAH2$_y$
   '[He] went home, and then…'

Another indication that the completive is cliticised to a host is a hold, in one hand, of the final position of the previous sign.[12] This can be seen in (7), where the left hand holds the sign KAWIN ('marry') while the right hand articulates the completive marker. Where the completive form is articulated with only one hand, it is usually the dominant hand that

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[10] In the following examples, *x* and *y* represent grammatically relevant locations (so-called *loci*) outside the neutral signing space in front of the signer.

[11] Such assimilation also happens frequently with free signs in connected discourse, but when it occurs in conjunction with other indicators described in section 2.2, it is interpreted as indicating cliticisation.

[12] Holds are possible because signers have two manual articulators at their disposal – they can 'hold' one hand, leaving it in the final position of a previous sign while using the other hand to articulate the next sign (see Sandler 2006).

articulates the completive.[13] However, the hold may occur in either hand, as seen in (8), where two tokens from the same signer are articulated with a hold in each hand, respectively. The occurrence of a hold fuses the clitic and its host together phonologically, which results in a reduced duration for the production of the sign.

(7)   dia   sudah   [Solo]
   RH-gloss: **PT:PRO3**   **KAWIN=SUDAH3**
   LH-gloss: **KAWIN--------------**
   RH-gloss: PT:PRO3   MARRY=SUDAH3
   LH-gloss: MARRY--------------
                   'She is already married.'

(8)   sudah   [Mksr]
   RH-gloss: **HANCURKAN--------------**   **LAKU++ =SUDAH4**
   LH-gloss: **HANCURKAN=SUDAH4**   **LAKU++ --------------**
   RH-gloss: CRUSH--------------   POPULAR++ =SUDAH4
   LH-gloss: CRUSH=SUDAH4   POPULAR++ --------------
                   'I crushed [the ingredients].'   'People kept coming, and…'

A final indication that a clitic is bound to its host is the scope of the mouthing. This can be observed by comparing the previous two examples. In (8) the scope of the mouthing covers only the clitic. Conversely, in (7), the mouthing *sudah* spreads, and is coextensive with both the host (KAWIN) and the clitic (SUDAH4), binding them together more closely. Another example is shown in (9), where the scope of the mouthing *sudah* includes LIHAT ('see') and SUDAH3. The mouthing is deliberately rendered syllabically as *su* and *dah* to represent the co-occurrence of each mouthed unit with a separate sign.

(9)
                                                       [Solo]
        su   dah
   LIHAT=SUDAH3
   SEE=SUDAH3
   'Have you already seen it?'

The descriptions above show how the four completive forms can encliticise, but one form also seems to occur as a proclitic. In (10), which immediately precedes (4), SUDAH1 and PT:PRO1 form a single prosodic unit; SUDAH1 is articulated very quickly as part of the movement towards the chest that forms the pronominal host sign, and the contact with the chest in PT:PRO1 is held. It is not yet known whether SUDAH1 can procliticise to other hosts or not.

(10)   sudah   mampir   sudah   rumah   budi   [Solo]
   PT:PRO1 **MAMPIR** **SUDAH1=PT:PRO1** **RUMAH**   **BUDI**
   PT:PRO1   CALL-IN   SUDAH1=PT:PRO1   HOUSE   BUDI
   'I have already been to Budi's house.'

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[13] Signers tend to have a strong hand preference, whereby the dominant hand has a more active role, and the non-dominant hand has a less active role. For right-handed signers, the non-dominant hand is usually the left hand, although this is not unalterable, and it is still possible for signers to switch dominance.

2.3 Completive mouthings

Manual forms of completion are often accompanied by a mouthing, usually of *sudah* (1, 2, 5, 8), which is the main completive marker in Bahasa Indonesia. These manual forms also occur with other mouthings, including *habis* ('finished, exhausted, used up') and in the Solo variety, *wis*, a completive marker from Javanese (Ngoko). Conversely, users of the Makassar variety do not borrow completive mouthings from local spoken languages such as Bugis and Makasssarese. This may be because it is harder for deaf signers to identify completives in these languages. For example, Makassarese expresses the perfective aspect by way of the enclitic *=mo* (Jukes, 2006:146; this volume), and it is likely that the interaction of perfective and pronominal enclitics prevents signers from identifying *=mo* as a completive in the way that signers in Solo can identify *wis* as a completive in Javanese.[14]

The potential role of mouthings in binding clitics to their hosts has been described in Section 2.2, in examples (7) and (9). In other cases, such as (3), (6) and (20), no mouthing is used. Sometimes the absence of mouthing appears to correlate with a signer's lack of access to formal education, but there is also a significant degree of intra-signer variation which cannot be explained by schooling alone, and more research is needed to establish the factors that may influence mouthing.

Interestingly, completion may also be indicated through mouthings alone, without a manual completive form. In (4) and (10) the mouthing 'sudah' occurs with a pronominal manual sign, while in (11) it occurs at the end of a constructed action, where the signer relates how she carried a basket of clothes upstairs. In (14) it is used with KAWIN to produce the meaning 'already married'. Very occasionally, a completive mouthing occurs with no manual form at all.

(11)   <u>sudah</u>   [Mksr]
    BAWA- PAKAIAN   **MENARUH-PAKAIAN**
    CARRY- CLOTHES   PUT-DOWN-CLOTHES
    'I carried the basket of clothes [upstairs] and put them down, and then…'

The use of mouthing in conveying completion can be both complex and creative, as is evident from (12), where the mouth, as a third articulator, is used to convey information about which siblings have done Hajj. Thus three discrete items of information are transmitted simultaneously.[15]

(12)   <u>sudah</u>   <u>sudah</u>   <u>sudah</u>   [Mksr]

RH-gloss:	**SAUDARA**	**HAJI**		**HAJI**	**HAJI**
LH-gloss:	**SAUDARA**		**PERTAMA**	**KEDUA**	**KETIGA**
RH-gloss:	SIBLING	HAJJI		HAJJI	HAJJI
LH-gloss:	SIBLING		FIRST	SECOND	THIRD

    'My three oldest siblings have already done Hajj…'

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[14] However, signers in Makassar *are* aware that some hearing people in Makassar use the word *sudahmi*, where the third person conjugation *=mi* is used redundantly (the literal meaning is 'already already'). In any case, the Indonesian mouthing *sudah* is by far the most common mouthing for both sign language varieties.

[15] Examples (12) and (27) have been slightly simplified for inclusion here. Originally these examples include 'list buoy' constructions (see Liddell 2003 for further details about this kind of construction).

As mentioned in Section 1, it is reported that at least two sign languages – Turkish Sign Language and Kata Kolok – can express completion through a *mouth gesture* alone, but to the best of my knowledge, no examples have been reported of a sign language that can express completion through *mouthings* alone. In this respect, the sign language varieties of Solo and Makassar appear to be cross-linguistically unusual.

The means of formally expressing completion that have been identified and described in Section 2 are shown diagrammatically in Figure 3.
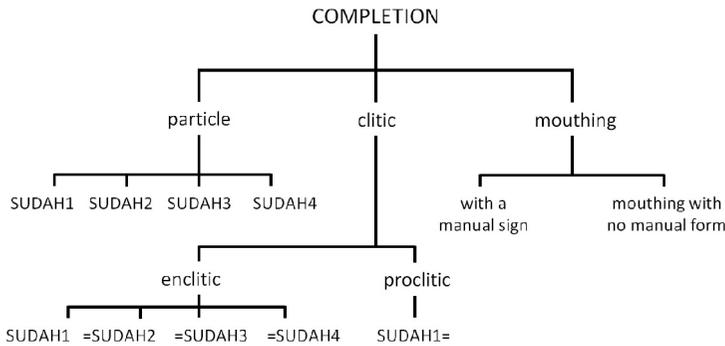
Figure 3.

Formal expressions of completion in Solo and Makassar. The list of forms noted here is not necessarily exhaustive; more research is needed to establish this.

3. The functions of completive markers

The completive forms described in section 2 have a variety of functions, and exhibit form-function asymmetry, with several forms competing to perform identical functions. It is not always easy or possible to assign a single specific function to the completive, since different interpretations are often simultaneously available, and there is no reason to assume that signers themselves make distinctions between these interpretations in every case. Although there do not appear to be any categorical contexts, it may be that some forms show a preference for certain functions (Palfreyman, forthcoming). Figure 4 is a schematic representation of the various functions that completive markers exhibit in the data. These functions are described further in sections 3.1 to 3.5.
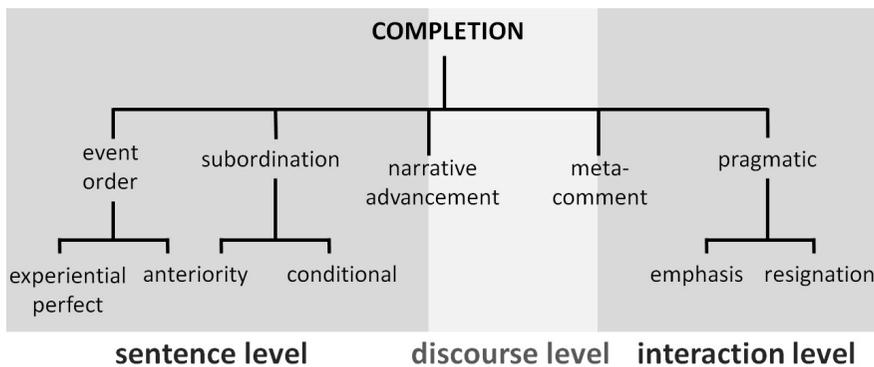
Figure 4. Functions exhibited by completive forms in Makassar and Solo.[16]

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[16] Again, the range of functions shown in Figure 3 is not necessarily exhaustive.

3.1 Experiential perfect

One of the functions of the completive form is the experiential perfect, signifying a situation that has been true at least once in the time leading up to the present (Comrie 1976:58). Although some signers express the experiential perfect using a dedicated sign that could be glossed as PERNAH, this seems to be influenced by signers' knowledge of Bahasa Indonesia. The majority of signers do not use PERNAH at all, and so in practice the function of expressing the experiential perfect tends to be subsumed by the completive. An example of this is (13), which definitely conveys the experiential perfect, as opposed to the resultative perfect or recent past perfect, since the object of this clause had died quite a while prior to the time of utterance.

(13)   [Mksr]
    PT:PRO3   **KETEMU=SUDAH1**   **PT:PRO3**
    PT:PRO3   MEET=SUDAH1   PT:PRO3
    'Did she ever meet her?'

3.2 Anteriority and subordination

The completive also expresses the anteriority of an action, i.e. that it has taken place prior to reference time:

(14)   <u>sudah</u>   [Mksr]
    KAWIN   **SUAMI**   **ISWANDI**
    MARRY   HUSBAND   ISWANDI
    'I have already married Iswandi.'

In some cases, signers use SEKARANG ('now') to link reference time with utterance time, and this has the effect of making explicit the fact that an event has happened in the past, prior to utterance time. In (15), the event of buying a motorbike took place in the past. When this took place is not at issue; rather, the actual situation now – that the motorbike has been bought – is contrasted with a situation in which the motorbike has still not yet been bought.

(15)   [Solo]
    SEKARANG SUDAH1 BELI BARU | **MOTOR**   **BARU=SUDAH2**
    NOW   SUDAH1 BUY NEW | MOTORBIKE NEW=SUDAH2
    'A new motorbike has been bought.'

The element of anteriority that is present in the completive is highlighted in a slightly separate function, as a subordinator. Here, the completive marker occurs at the end of a subordinate clause, alongside conditional non-manual marking, linking it to a main clause.

(16)   <u><cond></u>   [Mksr]
    <u>ngobrol</u>   <u>sudah</u>   <u>pulang</u>
    NGOBROL SUDAH4 | **PT:PRO1**   **PULANG** **RUMAH**
    TALK   SUDAH4 | PT:PRO1   GO-HOME HOUSE
    'When they had finished talking, I came home.'

(17)   <cond>   [Solo]
                                        sudah
         PAPAN-TUTUP   **SUDAH2** | **KITA-NGOBROL**
         CLAPPER-BOARD-CLOSE   SUDAH2 | WE-TALK

         'When the clapper-board has closed, we will start to chat!'

3.3 Narrative advancement

The 'bounded' property of perfective viewpoint, described by Smith and Erbaugh (2005) and Rathmann (2005), is also encapsulated in the completive marker, which is used by signers to propel the narrative. The completive marker is commonly used to present lists or sequences of events, where it appears in a clause final position to separate events or items from one another while simultaneously conveying the order in which events take place.

For this reason, Janzen (1998) suggests that the completive marker FINISH in ASL also functions as a conjunction meaning 'and then'. When it occurs at the 'right periphery' of the clause, the completive marker is orientated both backward and forward, which is a typical property of discourse markers (see Schiffrin 1987:254).[17] It may therefore be appropriate to analyse the narrative advancement function of completive markers at the discourse level, as well as the sentence level (see Figure 4).

In (18), a signer from Makassar is recommending a better daily routine to his friend. In (19), another Makassarese signer describes a recipe that she used to prepare a meal, which is shared as part of a longer narrative. The ordering of information is crucial to both examples:

(18)   [Mksr]
                    sudah   sholat   sudah   makan++   sudah
         CUCI-WAJAH **SUDAH2** **PT:PRO2** | **SHOLAT** **SUDAH2** | **MAKAN** **SUDAH2**
         WASH-FACE   SUDAH2   PT:PRO2 | PRAY   SUDAH2 | EAT   SUDAH2
         '[You should] wash your face, then pray, and then eat…'

(19)   [Mksr]
                                        sudah   sudah
         POTONG **MENARUH-AYAM** **SUDAH4** |... **HANCURKAN=SUDAH4**
         CUT   PUT-CHICKEN-DOWN SUDAH4 |... CRUSH=SUDAH4

         'Cut the chicken and put it to one side…'   'Crush [the ingredients]…'

3.4 Meta-comment

The completive marker is also used as a means of making a meta-comment, whereby the target constituent that the completive marker applies to is a discourse unit. For example, (20) occurs at the end of a narrative, where the signer uses the completive marker by itself to indicate to her interlocutors that she has finished. The target constituent of the completive marker is the entire section of narrative discourse prior to the time of

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[17] Cecchetto, Geraci & Zucchi (2009) explore the 'right peripheral' nature of specifiers such as completive markers.

utterance, since the signer is emphasising that her narrative has reached an end. This use of the completive marker also functions at the level of interaction.

(20) [Mksr]

SUDAH1   [*short pause*]   **SUDAH2**
'And that's the end [of my narrative].'   'I've finished!'

In the same conversation, another signer uses the completive to note the fact that her two interlocutors have both produced a narrative, and therefore implies that it must now be 'her turn' to produce a narrative (21).

(21) <u>   kamu   </u>   <u>   kamu   </u>   <u>   sudah   </u> [Mksr]
PT:PRO2$_x$ **PT:PRO2$_y$**   **SUDAH4**

'Now you have both said something (but I haven't had a turn yet).'

3.5 Pragmatic functions

The completive marker has at least two pragmatic functions.[18] Firstly, it is used to express resignation, in a way that is common also to some varieties of Malay.[19] The intensity of meaning varies from submission and acquiescence ('We must accept it') to dismissiveness and scorn ('Whatever!'). In (22) the articulation of SUDAH3 – and particularly the non-manual features of the signer – places it close to dismissiveness.

(22) [Solo]

WAKTU   SEBENTAR   SEBENTAR | **SUDAH3**
TIME   IN-A-MINUTE IN-A-MINUTE | SUDAH3
'He said "I'll be there in a minute!" ' | 'I thought, "Whatever…" '

The completive marker can also be reduplicated to add emphasis (23). For both tokens of this in the corpus, SUDAH3 is used. In (23), as in (22), SUDAH3 occurs in constructed dialogue, where the signer relates a conversation that has taken place, and this usage of the completive marker is interjection-like in nature. This makes sense, given that it is a pragmatic function of the completive.

(23) <u>   belum   </u>   <u>   sudah++   </u>   <u>   belum   </u> [Solo]
UANG   BERI   BELUM | **SUDAH3++** | **BELUM**
MONEY GIVE NOT-YET | SUDAH3++ | NOT-YET
'You haven't paid him yet.' | 'Yes I have!!!' | 'No you haven't!'

The multifunctionality of completive markers in Solo and Makassar is notably similar to completive markers in some other Indonesian spoken languages. For example, van Minde and Tjia (2004) analyse *su* and *suda* in Ambonese Malay and report that it has a range of semantic, pragmatic and discourse functions. There are also several overlaps between the functions described in Section 3 and the functions of FINISH in ASL noted by Fischer and Gough (1999). What is perhaps less common, certainly across sign languages, is the number of manual forms that can express completion in the sign language varieties of Solo and Makassar. Some thoughts about the origins of these forms are shared in Section 4.

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[18] Another possible pragmatic function is exhortative, as in "Come over here already!" This is currently being investigated further.

[19] In Malay/Indonesian, this function is almost always expressed with a combination of *ya* and *sudah*.

4. Variation and grammaticalisation

Completive markers have been described for several sign languages, but thus far the existence of several markers capable of expressing completion is only reported for Australian Sign Language (Johnston et al. 2013). Furthermore, the four forms described in Section 2 are not the only completive markers to be found across urban sign language varieties in Indonesia – other variants are known to exist. For example, the sign language variety of Jakarta has at least one other prominent completive form, which is also used a handful of times by one of the signers in Makassar (this appears to be due to language contact). The range of completive forms in the Solo and Makassar varieties raises an interesting question: where might these forms have come from?
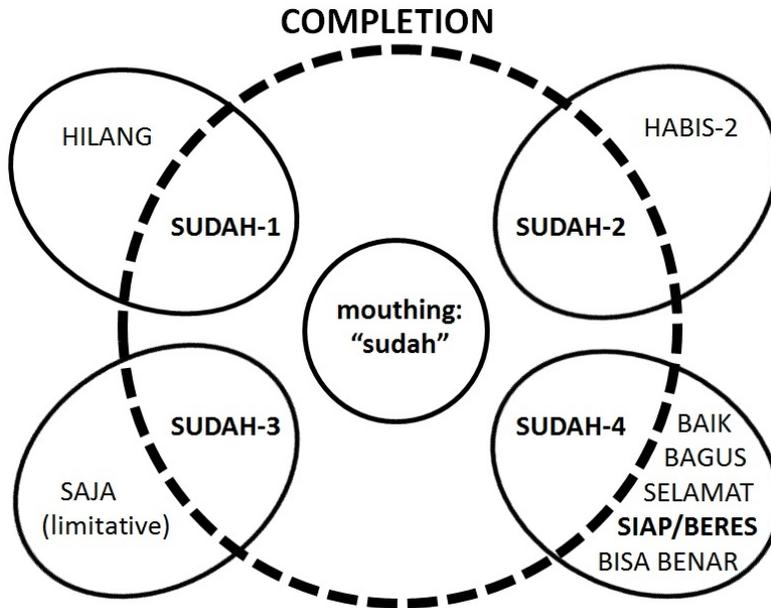

Figure 5. Forms of completive markers in Makassar and Solo, and other signs that share these forms.

Intriguingly, all of the forms described in Section 2 also have other meanings (see Figure 5), and in at least some cases there are reasons to suppose that this may be more than coincidental homonymy. SUDAH1 is identical in form to HILANG ('disappear, vanish, go away') while SUDAH2 is formally identical to HABIS ('finished, exhausted, used up'). SUDAH3 has a similar form to the limitative, SAJA, while the form of SUDAH4, which is highly polysemous, is identical to variant forms of BAIK/BAGUS ('good'), BERES/SIAP ('ready, in order, okay'), BISA ('can', an epistemic modal), SELAMAT ('safe'), and BENAR/BETUL ('correct'). Previously, completive aspect markers for sign languages have often grammaticalised from verbs and adverbials, including the completive markers FINISH, DONE, COMPLETE, ALREADY and READY,[20] but some of the

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[20] e.g. FINISH in ASL (Janzen 2012), FATTO ('done') in Italian Sign Language (Zucchi 2009), TAMAM ('done, complete, ready') in Turkish Sign Language (Zeshan 2003), ALREADY in Israeli Sign Language (Meir 1999) and READY in Greek Sign Language (Sapountzaki 2005). One complicating factor here is the

grammaticalisation sources for completives similar to the homonymous signs above have not thus far been reported for sign languages.

One of the problems that linguists face when seeking to examine grammaticalisation in sign languages is the near-universal lack of written or filmed records of the language, which usually precludes the possibility of identifying diachronic language change. However, there is some synchronic contextual variation in the data, which may reflect stages of evolution in the grammaticalisation of these forms (Heine 2002). For SUDAH2, SUDAH3 and SUDAH4, bridging contexts and switch contexts can be found in the data. These point to a grammaticalisation process whereby the sources become delexicalised, and I give some examples of these contexts in sections 4.2 to 4.4.[21] Before that, I discuss a possible semantic relationship between SUDAH1 and HILANG.

4.1   SUDAH1 and HILANG

Hopper and Traugott (2003:77) note that a 'plausible semantic relationship' leads to the assumption of polysemy, which is prerequisite to establish relationships between grammaticalised variants of a form. Just such a relationship can be established between SUDAH1 and HILANG ('disappear, vanish, go away'), since an event that is already completed has 'come and gone,' and is no longer there. There is also cross-linguistic evidence of this connection. SUDAH1 is very similar to a completive marker used in sign language varieties in India and Pakistan. This Indo-Pakistani marker is identical to a gesture that is used by hearing people, often when talking with young children, and accompanied with the words *cala gaya*, meaning 'has gone' (Ulrike Zeshan, personal communication, 1 May 2013). It may well be, therefore, that HILANG is the grammaticalisation source for SUDAH1.

4.2   SUDAH2 and HABIS2

The signs SUDAH2 and HABIS2 are found in both the Solo and the Makassar variety; they are formally similar, and also have some overlap in meaning. Because of this, it is not always easy to determine which designation a form should receive.[22] In some cases, the distinction is clear. For example, references to the absence or depletion of physical quantities of petrol, money or food are unambiguously outside the domain of grammatical completion (24).

(24)   <u>habis</u>   <u>makan</u>   <u>habis</u>   [Solo]
     UANG   **HABIS2** | **MAKAN**   **HABIS2**
     MONEY   RUN-OUT | FOOD   RUN-OUT
     'Our money would run out, and our food would run out.'

However, the HABIS2/SUDAH2 form is not only used to refer to tangible entities, but also to intangible ones, and may have something to say about event structure; in some cases, the form seems to refer to the *temporal* passing of an event – such as studying at school, a

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likelihood that researchers have made different lexical choices as to how to gloss these forms, which hides possible shared meanings between the forms.

[21] Heine (2002:86) describes bridging contexts as specific contexts that give rise to an inference in favour of a new meaning, which foregrounds the 'target' meaning (in this case, completive meaning); switch contexts are new contexts that are not compatible with the source meaning.

[22] Two other lexical variants of HABIS have been found – HABIS1 in Solo and HABIS3 in Makassar – both of which, unlike HABIS2, seem to refer iconically to the running-out of a quantity.

wedding, or a period of prayer – and this presents a bridging context where a case could be made for using either SUDAH2 or HABIS2:

(25)   <cond>   [Solo]
         kerja   _Wonogiri_   _habis_
PT:PRO1 KERJA PT:DET WONOGIRI | **KAWIN SUDAH2/HABIS2** | **PULANG**
PT:PRO1 WORK   PT:DET WONOGIRI | MARRY SUDAH3/HABIS2 | GO-HOME

'I was working in Wonogiri.'   'When the wedding finished, I came home.'

Instances of indeterminacy are unsurprising because, semantically, there is a clear relationship between the state of being completed and the state of being finished, exhausted or used up. However, examples (4) and (5) are clearly switch contexts, since these cannot be understood as conveying an element of exhaustion. In (4), which is repeated here as (26), neither HABIS2 nor an alternative variant, such as HABIS1, would be acceptable way of expressing the meaning 'I have already called round to his house.'

(26) *** PT:PRO1   MAMPIR   PT:PRO1   HABIS2/HABIS1**   [Solo]
      * PT:PRO1   CALL-ROUND PT:PRO1   HABIS2/HABIS1

      'I have already called round to his house.'

The existence of bridging contexts and switching contexts suggests that SUDAH2 is already some way along the cline of grammaticalisation.

4.3   SUDAH3 and the limitative (SAJA)

The completive SUDAH3 is homonymous with the sign SAJA, which has a limitative function. Cross-modally and cross-linguistically, there is evidence that points to a semantic relationship between completives and limitatives. Janzen (1998:112) notes that one of the lexical meanings of the ASL sign FINISH is 'that's all', while for Bahasa Indonesia, *sudah* is occasionally translated as 'that's all' (see Englebretson 2003:82 for an example). It is possible to detect a trace of completion in the concept of the limitative, since the completive indicates that an event is finished, and hence is limited; that is, the event constitutes nothing more than what has been described, and features no other element(s) besides those that are already completed. On these grounds, it is reasonable to speculate that the sign SAJA is the grammatical source of SUDAH3.

In (27), a Solonese signer describes the time she started working in a salon, and did not feel brave enough to cut a customer's hair. She requests only to comb, and give scalp massages and shoulder massages – these three things and no more – rather than cut hair. In this context, the final sign is clearly limitative. A bridging context occurs in (28), however, since both a limitative and a completive interpretation are available. Another bridging context can be found in (3) – repeated here as (29) – where a limitative interpretation is also available.

(27) _minta_   _mau_   [Solo]
      MINTA   **MAU**   **PERTAMA MENYISIR**   **KEDUA**
      ASK   WANT   FIRST   COMBING   SECOND
                                bahu   _saja_
      KETIGA   **PIJAT-BAHU**   **SAJA/*SUDAH3**
      THIRD   MASSAGE-SHOULDERS THAT'S-ALL/*SUDAH3
      'I asked if it's alright for me only to comb hair and give scalp and shoulder massages.'

[Solo]

(28) **MASALAH   SUDAH3/SAJA**
      PROBLEM   SUDAH3/THAT'S ALL

      completive interpretation: 'Problems have already surfaced.'
       limitative interpretation: 'There have been problems, that's all there is to it.'

(29)   <u>hilang</u>   [Solo]
      KARTU BERI   SUDAH3/SAJA │ HILANG TANGGUNG-JAWAB-SENDIRI
      CARD   GIVE   SUDAH3/SAJA │ LOST   RESPONSIBILITY-SELF

      completive: 'We give them a card, then if they lose it, that's their responsibility.'
       limitative: 'We give them a card and that's all [we are responsible for].
                    If they lose it, that's their responsibility.'

There are also switch contexts, where limitative interpretations are not available. Example (30) takes place during a discussion about candidates for an organising committee. The signer's interlocutor suggests a name (Person X) and the signer replies that he has already asked X for help. A limitative interpretation is not possible here because no limitation is implied. If it was the case, for example, that the signer had originally considered asking X for his time *and* money, but in the end had decided to ask only for his time, a limitative interpretation would then be available. Additionally, from a pragmatic perspective, the signer is making the point that he had already thought of asking X prior to the time of utterance, and therefore draws attention to the anteriority of his request, which requires the inference of completion.

(30) **PT:PRO3 PANGGIL PT:PRO3   BANTU-KAMI SUDAH3/*SAJA**   [Solo]
      PT:PRO3 CALL   PT:PRO3   HELP-US   SUDAH3/*THAT'S-ALL
      'I have already asked him [Person X] to help us' (completive).

Again, the existence of bridging contexts and switch contexts suggests that SUDAH3 may have progressed some way along the grammaticalisation cline from limitative to completive. Corroborating evidence has also been presented tentatively in the form of cross-linguistic observations that affirm a possible semantic relationship between the limitative and the completive.

4.4   SUDAH4 and BERES

The final manual form, SUDAH4, appears to have grammaticalised from the sign BERES/SIAP ('ready, in order, okay'). Interestingly, a grammaticalisation process involving a similar form has been reported for Kata Kolok, an unrelated sign language variety in Indonesia. Perniss and Zeshan (2008:139-41) describe how a Kata Kolok sign meaning 'good' (glossed THUMB-UP) has become delexicalised and taken on a possessive function (31).

(31) RIVER PT:DETx FISH THUMB-UP   [Kata Kolok]
      'There are fish in the river there.' / 'The river there has fish.'

A bridging context for SUDAH4/BERES can be seen in example (1), repeated below as (32). The final sign could be interpreted as 'well done', since it follows the sign MERIAS-WAJAH ('putting on make-up') and could therefore be interpreted as an evaluative comment from the signer expressing satisfaction on having made up her face. As further evidence in favour of this, the switch from SUDAH2 (at the end of the previous

clause) to SUDAH4/BERES at the end of the final clause could be cited.[23] Equally, however, both interpretations could be intended simultaneously, with a meaning along the lines of 'once my make-up was well done, I then...'. A very similar bridging context is (21), where a positive evaluation could also be inferred.

(32)   sudah   [Solo]
  PAKAI-JILBAB   SUDAH2 ¦ MERIAS-WAJAH   SUDAH4/BERES
  PUT-ON-JILBAB   SUDAH2 ¦ PUT-ON-MAKE-UP SUDAH4/WELL-DONE
  '… I put on my jilbab and then my make up, and then I…'   (completive)
  '… I put on my jilbab. Once my make-up was well done, I…' (completive/evaluative)

There is evidence to suggest that SUDAH4 has progressed along the grammaticalisation cline because it also occurs in a psychologically negative context, where fighting is being discussed disapprovingly (33). This is clearly a switch context, since it cannot be interpreted as having a positive meaning associated with BERES.

(33)   Sudah   [Solo]
  PULANG   SUDAH4/*BERES ¦ TENGKAR SUDAH4/*BERES   BIASA TEMAN
  GO-HOME   SUDAH4/*BERES ¦ FIGHT   SUDAH4/*BERES   USUAL FRIENDS
  '[They] came home and were fighting, as they usually do.'

Once again, bridging contexts and switch contexts suggest that SUDAH4 has progressed along the grammaticalisation cline, away from its source. The thumbs-up handshape appears to be particularly productive, given the range of lexical signs that can be expressed with a thumbs-up handshape (see Figure 5), and its role as a source for two grammatical signs – a possessive marker in Kata Kolok, and a completive marker in the urban sign varieties of Solo and Makassar.

5. Conclusion

Completion is expressed in the sign language varieties of Solo and Makassar primarily through the use of particles, which are capable of cliticisation. Completive mouthings (*sudah*, *habis* and, in Solo, *wis*) may also be used without a manual component to express completion. Of the four distinct particles that have been identified, at least three are likely to have grammaticalised from the lexical signs HABIS ('finished, exhausted, used up'), SAJA (a limitative) and BERES/SIAP ('ready, in order, okay'). A fourth may have grammaticalised from the lexical sign HILANG ('disappear, vanish, go away').

Cross-linguistically, there are some notable similarities between the sign language varieties of Solo and Makassar and other sign languages, especially between the individual forms that the completive takes, and the process of grammaticalisation that is involved. However, there are also some key differences, not least in the fact that so many forms are used – at least five have been identified in the urban sign language varieties of Indonesia so far, and it is likely that there are other forms yet to be discovered. The particular importance of mouthing is also notable, since mouthing alone is capable of expressing completion in these sign language varieties. Additionally, the fact that mouthings may be borrowed from some local spoken languages but not others is significant in what it tell us about the similarities and differences between sign language varieties across Indonesia.

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[23] Although there are several possible reasons for this kind of intra-individual variation (see Palfreyman forthcoming).

It must be stressed that the picture is still at a very early stage of development; more research is needed both on completion and in other lexical and grammatical domains. Studies on completion in different urban sign language varieties in Indonesia will create a better understanding of how the use of completive forms is changing in time. Further research can also shed more light on the language-vs-dialect problem, which was mentioned briefly in the introduction. Similar studies on different grammatical domains in Indonesia's urban sign communities will lead to further insights which, when considered alongside issues of socio-political and linguistic identity, will enable a more robust response to the question of how to delineate these sign language varieties, and others, along the language-dialect continuum.

6. Transcription conventions

Transcriptions in this article follow conventions used in the sign language literature. In each example, the top tier (in lower case) shows mouthings, and occasionally a second tier is added for other non-manual features as necessary. Glosses (in upper case) are presented in Bahasa Indonesia (shown in bold type, for clarity) and English (normal type). Note that hyphenated glosses (WORD-WORD-WORD) refer to a single sign which needs more than one Indonesian or English word to express its meaning. Separate tiers for non-manual features and for manual signs articulated by the right hand (RH) and left hand (LH) are used as necessary for illustrative purposes. The absence of these tiers in other examples is not significant.

Further transcription conventions are shown in the table below.

SIGN=SIGN	clitic	**…**	elided section of text
SIGN------	a hold of handshape	┆	clause boundary
SIGN++	reduplication	<u>mouthing</u>	mouthing (its scope is indicated by the underscore)
PT:PRO/DET	indexical, pointing signs (pronominal/determiner)	<u><x></u>	non-manual feature (its scope is indicated by the underscore)
SIGN$_{x/y}$	location in sign space with grammatical relevance	
	eyebrow raise
SIGN1, SIGN2, etc.	lexical variant forms	<cond>	conditional marking

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