Two languages at hand – Code-switching in bilingual deaf signers

Ulrike Zeshan & Sibaji Panda, International Institute for Sign Languages and Deaf Studies, University of Central Lancashire, UK

Abstract

This article explores patterns of co-use of two sign languages in casual conversational data from four deaf bilinguals, who are fluent in Indian Sign Language (ISL) and Burundi Sign Language (BuSL). We investigate the contributions that both sign languages make to these conversations at lexical, clause, and discourse level, including a distinction between signs from closed grammatical classes and open lexical classes. The results show that despite individual differences between signers, there are also striking commonalities. Specifically, we demonstrate the shared characteristics of the signers' bilingual outputs in the domains of negation, where signers prefer negators found in both sign languages, and WH-questions, where signers choose BuSL for specific question words and ISL for general WH-questions. The article thus makes the argument that these signers have developed a fairly stable bilingual variety that is characteristic of this particular community of practice, and we explore theoretical implications arising from these patterns.

Code-switching, community of practice, Indian Sign Language, Burundi Sign Language, negation, WH-questions, unimodal sign bilingualism

1. Introduction

Research on bilingual sign language users has previously centred on two sub-fields: "Sign bilingualism" and "bimodal bilingualism". Sign bilingualism is situated in the context of deaf education, where a sign language is acquired alongside a spoken language, usually in its written form, such as British Sign Language and written English (e.g. Swanwick 2010, Knight & Swanwick 2013). Because of its link with deaf education, the study of sign bilingualism often involves linguistic data from children and is often allied with issues from applied linguistics, such as the acquisition of literacy and language policies in education (Wilbur 2000, Plaza-Pust & Morales-Lopez 2008).

Bimodal bilingualism involves hearing people, often hearing children of deaf adults (CODAs), co-using a sign language and a spoken language. This includes the study of data from both children and adults (e.g. Emmorey et al. 2008 on American Sign Language and English, Donati & Branchini 2013 on Italian Sign Language and Italian). Bimodal bilingualism has been approached as a particular language contact phenomenon that is not found in spoken language linguistics, and has been of interest in psycholinguistics because of the effects on language processing (e.g. Emmorey 2009). By contrast, research on unimodal bilingual signers, that is, signers using two or more different sign languages in conversation, is a recently emerging research area.

There are very few studies dealing with data on the co-use of two sign languages. Previous studies have concentrated on the phonological and lexical levels, as in Quinto-Pozos (2000) on Mexican Sign Language (LSM) and American Sign Language (ASL), and Yoel (2007) on Russian Sign Language and Israeli Sign Language, specifically dealing with attrition of the former. More recently, work has also emerged on psycholinguistic aspects of bilingual language processing in unimodal sign bilinguals

(Adam 2013). Very little is known about the contribution that two sign languages make to utterances at clause and discourse level (see Adam 2012 on British Sign Language / Auslan and (Australian) Irish Sign Language).

In this article, we first summarise the fieldwork setting and the linguistic backgrounds of the participants (Section 2), followed by information about the data and methodology (Section 3). We then discuss the research domain, which focuses on negative clauses and WH-questions, and our approach to the data (Section 4). The following sections detail the results emerging from an analysis of the data, including both lexical choice (Section 5) and clause structures (Section 6). In the conclusion (Section 7), it is argued that the data support a view of this group of participants as a "community of practice" in sociolinguistic terms.

2. The language contact situation and the participants

2.1 *The fieldwork site and its linguistic situation*

This research was conducted in New Delhi with participants from Burundi who are enrolled in a BA programme for deaf students. This programme had attracted students from India and other countries, as it is taught entirely in a sign language environment and includes a preparatory university access programme. At the time of fieldwork, which was conducted outside the campus, six Burundian students were enrolled in the programme, four of whom participated in video recordings of signed interactions with each other (see Section 3.1 on data collection).

The context of this research is unusual in that the setting involves a group of signers from a range of different nationalities. This produces a particularly rich multilingual situation, also considering that the Indian students joined the programme from locations all over India. Our research has developed over a substantial time period and further work is on-going, but at the time of collecting these data, the student cohort consisted of the following:

Indian students: 50
Non-Indian students: Mexican (1), Nepalese (8), Burundian (6), Chinese (2), Ugandan (2), Afghanistan (1), Burma (1)

In addition, individual students in the cohort have varying degrees of fluency in American Sign Language (ASL) and International Sign, while the written language of communication is English only. Despite the multilingual nature of this setting, it is clear that the main language of interaction for both academic and social purposes is Indian Sign Language (ISL),[i] as may be expected given the predominant number of Indians in the cohort. All teaching staff, both hearing and deaf, use ISL to deliver the course. Moreover, all interactions with Indian signers outside the campus are in ISL, and as students live off-campus, they are not segregated from the wider Deaf community. In fact, all students have multiple, continuous links with local deaf communities in India, and all newcomers to the programme acquire communicative competence in ISL during their first few months.

The complexity of this multilingual situation is fully recognised here, and we do not wish to downplay its importance. However, as argued in Section 4, the research domain is such that this complex context does not impinge on the conclusions drawn from our data. Firstly, previous research has shown that ISL dialects have remarkably uniform grammatical structures and vary

principally with respect to the lexicon. In particular, Zeshan (2006) investigated dialectal variation with respect to negation and WH-questions in ISL regional dialects, and found no major grammatical differences. Secondly, in the preparatory planning phase, the research team made informal observations regarding sub-groups of students from different nationalities. These observations confirmed that the Burundian group continued to use BuSL signs in interactions with each other, rather than switching completely to ISL, or using any of the other available sign languages within this setting.[ii] Our informal observations of interactions between students from Burundi further suggest that they tended to mix BuSL and ISL for most purposes when communicating with each other. BuSL on its own seemed to be the predominant language mode only in situations of emotional intensity, for example during a conflict.

2.2 *The participants and their linguistic background*

In addition to the setting as a whole, the linguistic backgrounds of the participants are complex. The majority of the data are from three of the BuSL-ISL bilinguals (identified as CN, AB and SN), who were selected with the aim of capturing the bilingual productions of signers who had been acquiring ISL for varying periods of time. The three have similar linguistic backgrounds and educational biographies. None of them have other deaf family members, but all of them have some family members who can sign, particularly younger siblings. SN (female, aged 24) was born deaf, while AB (female, aged 28) and CN (male, aged 32) became deaf in early childhood, aged four and seven respectively. The fourth participant (WK, male, aged 27) also became deaf in early childhood. Thus all participants have BuSL as their functional first language (L1).

Educational options for deaf children are very limited in Burundi, as there are only a few special schools for the deaf. Thus, all participants attended the same primary school for deaf children (CN attended a hearing school for one year, before the onset of deafness). Primary school in Burundi goes up to year six, after which SN and AB continued in a hearing secondary school (year 7-10), while CN continued in a deaf secondary school. At school in Burundi, the language of literacy was French, and all participants acquired English later in life, after secondary school.

It is common for deaf Burundians to seek further educational opportunities, or to seek work, in neighbouring countries; all participants spent between 1-3 years outside Burundi: SN and WK in Kenya, and AB and CN in both Kenya and Uganda. They have therefore become familiar with the sign language varieties in these countries too.

At the time of data collection, CN had been in India for three years, AB for two years, and SN for one year. This factor has motivated the choice of this set of participants for data analysis, i.e. one person from each year group of students, as we were interested in potential correlations between length of stay in India and bilingual language patterns. Data from the fourth signer, WK, have been included in a more limited way (see Section 5 for details), as the three other signers produced a larger number of the target structures within the video segments analysed here.

Before coming to India, the four participants had been in regular contact with each other, typically several times a week. They belonged to the same church in the capital city of Bujumbura, and as church is a central part of social life in Burundi, their contact with each other before arriving in India can be described as intensive. There is no doubt that all participants were using BuSL together very regularly in Burundi for the several years that they had been living in Bujumbura. Within the group, CN has a leadership role because he is a church minister and was the first student to arrive in India, after which he was instrumental in assisting the other Burundian students in the transition to India.

While this article distinguishes between monolingual BuSL and the bilingual BuSL-ISL variety, we also recognise that referring to monolingual BuSL is a simplification, due to the presence of other linguistic influences from sign languages outside Burundi in general, and the participants' individual travel biographies in particular. Typically, the complexities of linguistic settings in much of sub-Saharan Africa, both for signed and spoken languages, make it difficult to identify any situation as truly "monolingual" (see, for instance, Lüpke & Chambers 2010 and Nyst 2010 on the complexities of linguistic settings in West Africa for spoken and signed languages respectively).

In the remainder of this article, we therefore refer to "monolingual BuSL" as shorthand for the variety that our participants would have used before they arrived in India and learned ISL. While it is recognised here that this variety of BuSL may itself be a composite system whose history and development from contributor languages has not been described, we also argue in Section 4.2 that for the purpose of the present research, it is not necessary to decide on this issue.

It is clear from the data that the Indian Sign Language used by the participants is a learner variety, that is, none of them has native competence in ISL. On the other hand, all of them have been using ISL in their everyday lives for a period between one and three years, and use their communicative competence daily in interactions with deaf Indians. Of course, there is no requirement in bilingualism research to study only people with equal competence in both languages (so-called "balanced bilinguals"), if indeed such an idealised situation exists in real life. In fact, Grosjean (2010:20) points out that it is a misapprehension to consider only balanced bilingualism as "real" bilingualism: "If one were to count as bilingual only those who can pass as monolinguals in each language, one would have no label for the vast majority of people who use two or more languages regularly but do not have native-like fluency in each." Our bilingual participants do not have balanced bilingualism, but clearly do have a usage-based functional bilingualism, or rather multilingualism. Their total multilingual repertoire includes written English, written French, BuSL, sign language varieties in Kenya and/or Uganda, and ISL.

Of the four participants, AB has the highest degree of fluency in ISL, due to more intensive contact with ISL users (see the comments in Section 5.1), and it is interesting to note that the degree of fluency in ISL does not correlate neatly with the time spent in India. However, none of the participants, including WK and SN who are among the latest arrivals in India, reported any communication difficulties with ISL signers at the time when data collection took place for this research.

3. Methodology and data

The data presented here form part of a larger data corpus of bilingual BuSL-ISL productions. Data collection from BuSL-ISL bilinguals involved three stages:

a) Collecting information about each participant's background, including the kind of information presented in section 2.2, which was gathered using a written questionnaire about the person's linguistic biography and bi-/multilingual language use; and qualitative questions (for which the answers were videotaped) to get a sense of the participants' language attitudes, for example how they felt about the mixing of several sign languages.
b) Free conversations involving the whole group of four participants, which were videotaped. The researcher asked some guiding questions in order to encourage and steer the

conversation, but did not otherwise interfere. These conversational data, comprising over 3 hours of video, are the basis of the present article.

c) At a later stage of the research, pairs of participants were involved in a linguistic elicitation game based on maps of places familiar to them, resulting in nearly 2 hours of data which are more recent and have not been analysed yet. These data include two further BuSL-ISL bilinguals who were only involved at this stage.

Interestingly, the four participants expressed different language attitudes with respect to their bilingual use of BuSL and ISL during the qualitative interviews. While all of them found it valuable to know more than one sign language, they did not agree on the mixing of different sign languages in communication. CN and SN felt that keeping their different sign languages quite separate was preferable, while AB and WK supported the idea of mixing sign languages in the same discourse. However, these expressed attitudes do not correlate with the actual linguistic behaviour of the participants. In the actual discourses analysed here, all four participants mix BuSL and ISL and freely code-switch between the two.

3.1 *Data from bilingual interactions*

The conversational bilingual interactions were recorded in a relaxed private home setting, with participants sitting in a half-circle (see Figure 1 for a screen shot of this). All four individuals were active in the conversation, some more than others. Before the start of data collection, participants were briefed about the aims and implications of the research and intended use of the data, following the project's standard informed consent procedures.

INSERT FIGURE 1 ABOUT HERE

The recording session was led by one of the co-authors, who is a deaf Indian and native ISL user. He used guiding questions to start the conversation, but then left the room and was not present for the rest of the interaction, except to add a few further guiding questions when the participants ran out of topics to talk about, after which he again left the room. The intention of these questions was to prompt the signers to talk about situations and experiences that were hypothesised to elicit code-switching between the two sign languages. For example, participants were asked how they had first learned ISL upon arrival in India, and what this experience felt like to them. They were asked about their experiences of travelling to New Delhi and their future plans upon their return to Burundi at the end of their studies. These kinds of guiding questions were successful in eliciting conversations with a large amount of code-switching. In addition, some of the conversational segments include a lot of negative and interrogative constructions, which are the main grammatical target of the analysis here.

The participants were not asked explicitly to use both BuSL and ISL, and the aims of the research with its focus on bilingualism were explained only in very general terms. It is therefore unlikely that the initial briefing or the researcher's brief presence have influenced the data, especially as the participants' code-switching between BuSL and ISL had already been observed informally. There is no reason to suppose that the data represent anything other than the natural discourse style of the participants when discussing the topics that they were asked to address.

In response to the topic of their initial journey to India, CN, AB and SN each produced a longer, coherent text. A segment of ca. 3 minutes was selected from each of these narratives on the basis of a substantial number of negatives and WH-questions occurring therein. As in each case the journey from Burundi to India was fraught with difficulty, it is natural for these texts to contain a lot of negation. WH-questions were somewhat less frequent, as would be expected in a monologue narrative segment, and most questions are rhetorical or in the form of reported speech rather than being directed at another participant in the conversation, although the latter also occurs a few times. These short segments are the basis of overall word counts across all signs, irrespective of the occurrence of negative clauses and WH-questions. The segments also provided an opportunity to consider the discourse level with respect to the lexical choice of BuSL and ISL signs. Although the total transcribed data is only a small proportion of the entire videotaped data, the process did result in the substantial number of nearly 1,000 transcribed and labelled signs, which allows an initial insight into bilingual sign language use, without claiming that the data are strictly representative of the entire corpus collected for this research.

In order to gain a more comprehensive impression of the bilingual use of negatives and WH-questions, we also analysed individual clauses that occurred outside these three texts. These are taken from longer segments totalling over half an hour of video, which contain the three narratives. Additional negative and WH-clauses from all four signers appear in these data, and all additional clauses are fully transcribed in the same way as the three short text segments. These additional clauses are relevant for the specific analysis of negatives and WH-questions only. Table 1 provides a summary of the video data.

INSERT TABLE 1 ABOUT HERE

3.2 *Data annotation and analysis*

Much work on code-switching in spoken languages relies on the analysis of conversational texts (see, for instance, the contributions in Auer 1998). For sign languages, with few exceptions, such work is not yet widely available, and thus there are no established standards for analytical procedures in working with bilingual signed texts. A number of methodological issues were encountered during the research process (see Section 4.2). For instance, there were obstacles related to annotation and glossing. The analysis mainly relies on annotations produced with the multimedia annotator programme ELAN. Both the narrative texts and the individual clauses were first glossed sign-by-sign. As we were interested in the relative contributions of BuSL and ISL signs, each sign gloss is prefixed with the language that it comes from (e.g. I:PROBLEM vs. B:PROBLEM). Interestingly, there is a high percentage of signs that cannot unambiguously be assigned to either language, and these were annotated as S:GLOSS (for "same").

The implications of this lexical overlap for the analysis are discussed in more detail in later sections. The initial glossing was done by some of the BuSL-ISL bilinguals themselves, and then reviewed by the research team. In addition, a separate ELAN tier coded the occurrence of negative signs and WH-signs, which made it easier at the analysis stage to search for and compile all relevant clauses. The codes on this tier are NEG-BUSL, NEG-ISL, NEG-SAME, WH-BUSL, WH-ISL, and WH-SAME, reflecting the same three-way distinction as in the sign glosses on the main tier. An additional tier was used for open comments of any kind.

Subsequently, all negative and WH utterances were compiled into an Excel spreadsheet. This enabled us to categorise the utterances according to lexical choice and grammatical properties. In addition, it was of interest to get an overall word count as to proportions of BuSL signs, ISL signs, and

signs that could be from either language. This was done for the narrative texts only, as an overall word count is most informative with respect to longer connected discourse. Deciding which signs to include in this count has not been straightforward, and a number of sign categories had to be excluded in order for the analysis to be meaningful. Overall, 991 signs from the three narratives were used for this analysis, and the methodological details and results are discussed in Section 5.1.

3.3 *Monolingual data from Burundi Sign Language*

This research on code-switching has been unusual in that one of the sign languages involved, BuSL, is undocumented. Code-switching research on spoken languages usually relies on information about the lexicons and the grammars of both languages being available, as is seen in work on French and English by Grosjean (see Grosjean 2008:286-289), or work on Swahili and English by Myers-Scotton (1993, 1997), for example. However, there are a number of arguments supporting the viability of our research, even in the absence of BuSL documentation. First of all, this situation is not unheard of in other areas of contact linguistics. Thus Creole researchers are not always familiar with the substratum languages[iii] of the respective Creole languages being studied. Although some work in creole linguistics such as by Lefebvre (1998) emphasises the importance of grammatical substrate in Creoles, in this case with respect to the role of West African languages in Creoles in the Caribbean, this is not always the case, and work that does not rely on detailed knowledge of the grammars of contributing substratum languages is not automatically considered unsound or invalid.

Secondly, we were able to rely on the fact that BuSL is one of the numerous sign languages in sub-Saharan Africa that have arisen under strong influence from American Sign Language (ASL). Thus a large amount of lexical material as well as grammatical aspects of BuSL have been carried over from ASL into BuSL. This applies, for instance, to all of the WH-signs used in the sub-corpus (coded WH-BUSL), and all negator signs that were coded NEG-BUSL. The details of how ASL arrived and spread in Burundi are not documented, but Nyst (2010) provides possibly comparable scenarios of ASL spread in West Africa, emphasising the role of deaf education in the process. This includes regions of West Africa where, as in Burundi, French rather than English has been the dominant language of education. The discussion in this article is limited to negation and WH-questions as well as constituent order in these clauses, and for this limited purpose, it is not necessary to have a comprehensive description of BuSL grammar.

Moreover, for the purpose of this research, we do not aim to decide where the various non-ISL signs and structures used by our participants ultimately come from, and as mentioned above, the way in which BuSL has been shaped by influences from ASL and other sign languages is beyond the scope of this research. Rather than trying to analyse each sign's ultimate source, the rationale for categorising BuSL in our data, discussed further in Section 4.2, has been by way of exclusion, concentrating on signs that are clearly not part of ISL (labelled B:GLOSS, WH-BUSL and NEG-BUSL).

Monolingual BuSL data were included in order to have at least some direct evidence of negatives and WH-questions in BuSL. We recorded two female signers from Burundi (SN and AB) in conversation for 45 minutes, asking them to communicate using BuSL only. While not fully comprehensive or free of ISL interference, this has provided at least an approximate model of BuSL on its own. Moreover, another member of the research team, who is an American fluent in ASL, reviewed this video recording and confirmed the very substantial degree of overlap with ASL. While there are also some interesting differences between ASL and BuSL, these are beyond the scope of this article, and the important point to note is the considerable overlap with ASL in the negative and

WH-structures of BuSL. The BuSL video recording was not glossed in ELAN as its role was limited to providing a sample of BuSL for comparison with the bilingual conversations.

Finally, one of the co-authors conducted a specific elicitation session with four BuSL signers (AB, SN, CN, WK), where they were asked explicitly about negative and interrogative constructions as well as constituent order options in BuSL. These responses, which were videotaped, confirmed our expectations derived from the bilingual and the monolingual conversational recordings. The monolingual BuSL data, the similarities with ASL, and the elicitation session together provide a relatively clear picture of BuSL with respect to the target grammatical domains. Taking all the available evidence into account, we can draw valid conclusions from the data. The scope of this research is narrowed in Section 4.1, while further challenges in the analysis process are discussed in Section 4.2, and a summary of ISL and BuSL negatives and WH-questions is given in Section 4.3.

4. The research domain

4.1 *Aims of the research*

This research has several interrelated aims. First of all, we aim to document the ways in which two sign languages may be used in bilingual interactions, thereby adding to the thin data base currently available in the area of code-switching involving sign languages. As pointed out in Section 1, there are very few studies of bilingual sign language use, and there is a particular gap with respect to findings above and beyond the level of individual signs.

More specifically, we are interested in the lexical and grammatical choices that bilingual signers make in conversations that involve code-switching. In order to identify patterns and draw conclusions about the differential contributions that both languages make in terms of lexical choice and grammatical structures, the domains of negation and WH-questions have been chosen as the primary focus of analysis because they are relatively well-documented across sign languages (cf. Zeshan 2004a, 2004b, 2006) and thus the discussion here can be informed by a typological perspective against which to evaluate the data.

This research also reveals some individual differences between the signers who participated in the study. Not all signers exhibit the same code-switching patterns to the same degree. The findings in Sections 5 and 6 are differentiated where appropriate according to whether they are equally compatible with all data, or are found more rarely or not at all in some of the participants.

4.2 *Challenges encountered during analysis*

In other studies on code-switching, the analysis generally relies on more or less detailed prior knowledge of the two or more languages involved in the bilingual situation. This is the case particularly where the research question centres on the grammar of utterances at the clause level, as in work by Muysken (2001, 2011, 2013). The present research can similarly rely on previous documentation of the grammar of ISL, which is by now a relatively well-documented language. Both grammatical overviews (e.g. Zeshan 2000, 2003) and documentation of individual grammatical domains (e.g. Panda & Zeshan 2011 on reciprocal constructions, Zeshan 2006 on negation and WH-questions, Sinha 2009 including clause types) are available. Moreover, both co-authors are fluent in ISL, and one is a native signer.

On the other hand, the lack of BuSL documentation presents challenges for the analysis, particularly in view of the fact that no monolingual BuSL users were available. Under these circumstances, an important line of argumentation proceeds by way of exclusion: those lexical and grammatical elements that are not found in ISL are likely to be from BuSL, especially if they are also found in ASL, which has heavily influenced the BuSL variety used by our participants. Importantly, it has been straightforward for the research team to identify structures that are ungrammatical in ISL, and this has often provided crucial arguments for the analysis. ISL syntax in negative clauses and content questions follows very strict constituent orders, making it straightforward to identify clauses that would be ungrammatical in ISL. Conversely though, where a particular structure is compatible with ISL grammar, it was usually not possible to identify whether the same structure also occurs in BuSL or is ungrammatical in BuSL, and this limitation must be borne in mind. In other words, negative evidence on the ungrammaticality of constructions is only available for ISL, but not for BuSL.

A different challenge arises from an unexpected angle, given that BuSL and ISL are genetically unrelated and have not had any prior historical contact. Despite this situation and somewhat surprisingly, the bilingual conversations contain a substantial number of lexemes that exist in both languages. In a few cases, this is due to shared contact with a third sign language, ASL, but unlike in BuSL, the number of ASL borrowings in ISL is very small. Although there are some groups of ASL-ISL bilinguals in India,[iv] their number is vanishingly small compared to the total number of ISL users, which is estimated to be at least 2-3 million, if not more (cf. Bhattachaya, Grover & Randhawa 2014). The greater number of lexemes that are identical in BuSL and ISL are more likely to have arisen from shared iconicity. The iconic nature of many signs results in the likelihood of a baseline level of shared vocabulary across sign languages, even if these sign languages are completely unrelated. For instance, Guerra Currie et al. (2002) identified a baseline level of lexical similarity between Mexican Sign Language and Japanese Sign Language, two unrelated languages, at 23% of the lexical entries that they investigated. Interestingly, several negator signs are among those that exist in both BuSL and ISL, while WH-signs are quite distinct in the two languages (see Section 4.3).

The frequent occurrence of signs that could be either BuSL or ISL creates a particular complication with respect to coding and analysis. In much of the literature on code-switching in spoken languages, the point of switch between two languages is of particular interest, and it has been important to discuss at which point in the clause code-switching should be possible or impossible, in order to find general constraints on code-switching. Constraints proposed have not always been successfully validated by subsequent research, as pointed out in Muysken (2013), but nevertheless, this aspect has been important in the spoken language literature. It has also been pointed out that lexemes potentially belonging to either of the languages involved in the bilingual interaction can facilitate code-switching by acting as ideal switch points, as in this English-Dutch bilingual example cited in Muysken 2013:194, which relies on the similarity between English *what* and Dutch *wat*:

(1) *Weet je what she is doing?*
Do you know…?
'Do you know what she is doing?'

With respect to our data, it is clear that the existence of signs that cannot be assigned clearly to either BuSL or ISL creates complications for the analysis in terms of the point at which code-switching occurs. These signs are very frequent in the data and thus warrant the aforementioned separate coding category S:GLOSS. In many cases, the S signs are interspersed with unambiguous BuSL and ISL signs. In particular, in any sequence where signs of the type S:XXXX occur in between BuSL and ISL signs (examples 2 and 3), it is impossible to determine where exactly the switch point is because the signs in the middle could belong to either sign language. Non-manuals are not glossed in

the examples except where particularly relevant, but can be seen in the video clips provided with this article.

(2) B:WHY S:IX1 S:MEET S:IX1 B:HONEST S:DON'T-KNOW I:OWN$_3$ I:BACKGROUND S:DON'T-KNOW
'Because when I'd meet her, honestly, I don't know her background.' clip 5, 02:17, WK

(3) I:MONEY B:UTENSILS S:FOOD S:COOK S:IX1 I:PAY B:HOW
'How would I pay for utensils (kitchenware) to cook food?' clip 2, 04:12, AB

This issue is also recognised in Quinto-Pozos (2007:11), who recommends that due to these difficulties in labelling a particular utterance as from one sign language or another, we need to work towards "an in-depth syntactic analysis of code switching between two sign languages". Some initial steps towards such an analysis are attempted in Section 6. However, it should be noted that the problem is not limited to open-class lexical signs, but also affects closed-class grammatical items. The frequent occurrence of S type signs is particularly pertinent with respect to the negative signs that are shared between BuSL and ISL (see Section 4.3.1), and these are important grammatical morphemes. Thus if we were to consider the potential role of one of the sign languages as the grammatically dominant language, following the model proposed in Myers-Scotton (1993, 1997) and subsequently elaborated, it would be essential to identify the language of the negative morphemes in a negative clause. The Matrix Language Frame model is intended to account for intra-sentential code-switching such as in examples (2) and (3), and posits that in a bilingual utterance one language usually is the dominant language (Matrix Language, ML) that provides the grammatical frames for the sentence, and the other one is the Embedded Language, EL, that mainly provides lexical material (see Myers-Scotton 2002:10ff). Similar complications arise when trying to apply the typology proposed in Muysken (2001) in terms of insertion (of individual lexemes from language A into Language B) and alternation (between chunks of language A and Language B), particularly in the latter instance. The third term in this typology, congruent lexicalisation, is useful and explored below.

There is no obvious solution to these problems, and therefore, the analysis here does not focus on determining the switch point in mixed utterances, and neither do we explore the "fit" of our data against the Myers-Scottons ML-EL model or Muysken's three-way typology. Instead, it can be argued that the existence of these shared signs plays an important role in shaping the particular bilingual variety used by these signers in conversation. This argument is pursued in Sections 6 and 7.

4.3 *Negation and WH-questions*

4.3.1 *Negation*

BuSL and ISL have a number of similarities with respect to negative clauses, while WH-questions are quite different in both sign languages. Both BuSL and ISL principally rely on negative particles for clause negation, and this is also the option most commonly found across sign languages in general (Zeshan 2004a). The basic clause negators, that is, those signs that merely reverse the polarity of a sentence without any additional semantic content, are represented in Figure 2. For ISL, the sign is derived from a common communicative gesture used by hearing people in the Indian subcontinent (Zeshan 2006). The BuSL basic clause negator sign is identical to the ASL sign.

INSERT FIGURE 2 ABOUT HERE

Interestingly, BuSL and ISL share a number of other negative particles. These are from among the same types of signs that have also been shown to occur with some frequency across sign languages in general. Zeshan (2004a) identified the wagging index finger, the side-to-side open hand wave, and the closed round handshape (F- or O-handshape) as three forms that occur frequently in a typological sample of 37 sign languages. It is therefore not surprising that such signs would occur in BuSL and ISL as well. However, the number of these overlapping signs is striking, as there are a total of five negators that occur in both sign languages (see Figure 3). The first three signs have the formal characteristics just mentioned, while the fourth sign is a borrowing from ASL (based on the one-handed fingerspelling N-O). As ISL does not use one-handed fingerspelling, this sign is clearly not indigenous to India, but is one of the relatively few ASL borrowings used by some deaf Indians. In addition, both sign languages also share the use of a negative predicate DON'T-KNOW. Again, this form is found in a number of unrelated sign languages and is sometimes part of a larger paradigm of related forms (e.g. in Ugandan Sign Language, see Lutalo-Kiingi 2014), but this is not the case in ISL and BuSL.

INSERT FIGURE 3 ABOUT HERE

Negative signs that do not overlap in the two sign languages include the signs CANNOT in ISL and BuSL, as well as NEVER in BuSL, and the basic clause negators mentioned above. It should be noted that for the purpose of this research, it was not possible to ascertain whether all negative particles that are shared between BuSL and ISL have the same function and meaning.[v] We have only been able to note their identical form and their global function as negatives, while details on the use of these negatives in BuSL have not been available. However, it is striking that in the paradigm of negative particles of both sign languages, more signs are shared than are different.

4.3.2 *WH-questions*

WH-questions are quite different in BuSL and ISL, especially with respect to the paradigm of question words. Cross-linguistically, this is in line with the radical differences found in question word paradigms across sign languages (Zeshan 2004b). The only similarity is the use of an ASL variant for 'who' in both BuSL and ISL, glossed S:WHO. Other than this, the interrogative signs of BuSL and ISL have no known overlap.

In ISL, all specific question signs except two monomorphemic signs (WHEN in the sense of 'what date' and S:WHO) are compounds with a general WH-sign. The general WH-sign can be used, in principle, for any interrogative meaning, but often the meaning is specified by creating a compound with another sign, with WH always being the second member of the compound. These are FACE+WH for 'who', PLACE+WH for 'where', NUMBER+WH for 'how many', TIME+WH for 'what time, when', and a distributive form of INDEX+WH for 'which' (see Figure 4). The functions 'why', 'how', and 'what' are subsumed under WH. With the possible exception of S:WHO, all WH interrogatives are obligatorily clause-final, as they behave in the same way syntactically as other functional particles in ISL including negatives, and thus there is no doubling of WH-signs either (Zeshan 2000, 2003).

INSERT FIGURE 4 ABOUT HERE

In BuSL, WH-questions behave very differently. First of all, WH-signs regularly appear clause-initially, though they can appear clause-finally too. In addition, WH-signs can be doubled, as is also the case

in ASL, and there can be multiple WH-questions in one clause (cf. Fischer 2006). All WH interrogatives found in the bilingual and monolingual data as well as those reported by BuSL signers during elicitation are identical to ASL signs. This includes WHO, WHERE, WHEN, WHY, and HOW (see Figure 5).

INSERT FIGURE 5 ABOUT HERE

The main difference between ASL and BuSL in terms of question signs is the use of a PALM-UP sign, of gestural origin, which is used in ASL as a question word meaning 'what'. The use of PALM-UP in various functions, such as clause linker, negative, or discourse particle, is common across sign languages, as reported, for instance, in Zeshan (2006) for Turkish Sign Language and in Lutalo-Kiingi (2014) for Ugandan Sign Language. In ASL, a PALM-UP indefiniteness marker has been identified by Conlin, Hagstrom & Neidle (2003), in addition to a PALM-UP sign for 'what'.[vi]

In BuSL, PALM-UP is not used as a question word, but is a question particle that can occur to mark both yes/no-questions and WH-questions, and in the latter case can co-occur with other question signs. For the interrogative 'what', BuSL uses the sign in Figure 6, which is also a possible variant in ASL. In the elicitation session, our participants unanimously reported that PALM-UP is not used as a WH-sign in BuSL. Therefore, all occurrences of PALM-UP signs used as WH-interrogatives are glossed I:WH and considered ISL signs here. In citation form, the general WH-sign in ISL has a handshape with the finger tips pointing in different directions as shown in Figure 4, but in discourse, the handshape can often be more relaxed with all fingers in parallel, as is typical of PALM-UP signs in other sign languages.

INSERT FIGURE 6 ABOUT HERE

5. Lexical choice in unimodal bilingual signed texts

The specific aim of this article is to investigate the way in which code-switching operates in negative clauses and WH-questions in BuSL-ISL bilinguals. However, it is also of interest to look at lexical choice in general, that is, to consider the contributions to signed texts by signs that are from BuSL, from ISL, or that could be from either sign language. This is considered in Section 5.1. Lexical choice with respect to clause negators and question words is discussed in section 5.2. Finally, section 5.3 considers the ways in which signs from the two sign languages are combined in discourse.

5.1 *Lexical choice in example texts*

For the data discussed in this section, we have used the three-minute texts produced by the three signers AB, SN and CN. The motivation was to establish which percentage of signs in these texts are BuSL signs, ISL signs, or signs from the S category that could belong to both languages. As there are few if any such text-based studies on unimodal sign bilinguals, it is interesting to compare the overall use of signs with the lexical choices made specifically in negative clauses and WH-questions.
From the three signed texts, a total of 991 signs were initially coded and assigned to one of the three categories - BuSL, ISL and S. The number of signs coded for SN and CN is very similar (308 and 293), while AB's text has a higher number of signs (390), mainly due to a faster signing tempo.

During the analysis, it became apparent that some categories of signs in the S category should be excluded from consideration. In fact, the number of signs that could not unambiguously be assigned to either BuSL or ISL is very high, which was surprising at first. Overall, only about a third of all signs in the texts are unambiguously from BuSL or from ISL. The results are summarised in Table 2.

The reasons for this high incidence of shared signs become clear once we consider various subcategories within the S categories. First of all, there is a large amount of index finger pointing, which is unsurprising given that research on other sign languages has shown a similar prevalence of pointing signs (cf. de Vos 2012). In the three texts considered here, AB and CN are in line with the findings from other sign languages, and only the text by SN includes relatively few instances of index finger pointing (4.9%).

Another category that has been excluded from the analysis consists of classifier constructions (CL) including size and shape specifiers (SASS).[vii] These highly visual constructions often show a great degree of overlap across unrelated sign languages due to their iconic nature (cf. Emmorey 2003). As might be expected, the use of these signs depends to some extent on the topic of the text. Therefore, there are large differences in the number of signs in these categories across the three texts. The text by CN, in particular, includes a large number of handling constructions, as the text is about interactions at the border crossing into India. CN describes in much detail the handling of his passport and other documents, which results in a high number of handling classifiers. This category also includes general directionals, that is, an open hand shape moving towards or away from the signer, glossed COME and GO.

These signs have been excluded from the analysis here because our aim has been to quantify lexical choices with respect to conventional lexical signs. If signers express 'giving', 'taking', and 'putting', the use of appropriate handling classifiers with high visual iconicity does not constitute a lexical choice between BuSL or ISL lexemes. Similarly, pronominal index finger points do not constitute a locus of lexical choice between BuSL and ISL. Finally, a few other types of signs were excluded for the same reason (listed under the *Other* category in Table 2); these include proper names for both persons and places, pointing signs with other hand shapes, manual actions categorised as communicative gestures, and signing without a manual component. The *Other* category has a particularly high word count for SN because there are many proper names in this text. The remaining signs in the S category which are included in the analysis (fourth column from the left in Table 1) include both iconic signs that happen to be identical due to shared iconicity (e.g. DEAF, BEFORE, CHOOSE, PHONE) and non-iconic signs that may have come about due to shared borrowing from other sign languages, primarily ASL (e.g. N-O, INTERPRETER, OK).

It should be noted that the S category is possibly an overestimation. Both the BuSL and the ISL variety used within this fieldwork setting have been subject to influences from several other sign languages e.g. from Kenya, Uganda, and the US, as mentioned in Section 2, and there is often more than one sign in use for a particular concept. Therefore, only those signs that were certain to be exclusively from ISL on the one hand, or were clearly assigned to BuSL through the rationale explained in Section 4.2 on the other hand, were coded as such. Any doubtful cases that could be instances of lexical overlap between the two languages were assigned to the S category. This also applies to cases where it is unclear whether there may be a small phonological difference between similarly articulated signs in BuSL and ISL, parallel to English *what* and Dutch *wat* in example (1). As any such cases are difficult to ascertain given the wide dialectal range of ISL and the lack of BuSL documentation, no distinction is made between strictly identical and very similar signs, and all are assigned to the S category.

This was done in order to have more conservative estimates of BuSL and ISL signs, which are the main target of comparison here. On the other hand, while the high number of S signs may seem surprising at first, these figures are similar to what has been found in a previous study on Mexican Sign Language (LSM) and ASL. Quinto-Pozos (2000:101) summarises that "slightly more than 50% of all elements in the group and interview sessions could be understood by monolingual users of either

LSM or ASL. The average percentage of SA signs throughout all sessions was 20%.[viii] Gestural and pantomimic elements totalled more than 13% of the group discussion elements. Further, points averaged slightly more than 20% for all the sessions."

INSERT TABLE 2 ABOUT HERE

Table 2 shows the frequency counts for the 991 coded signs in terms of the sign categories described above. The columns headed *IX, SASS/CL* and *Other* contain the excluded signs. The proportion of excluded signs is around a fourth of signs for AB and SN, although distribution across the three excluded categories is very different. For CN, the proportion of excluded signs is substantially higher due to the large number of SASS/CL signs. However, there are still a total of 652 tokens of signs in the first three categories (BuSL, ISL and S), and these are the signs that are of specific interest here.

The data in Table 2 at first sight suggest that there are considerable differences in the percentages of BuSL, ISL and S signs across the three texts, ranging, for instance, from 19.1% of S signs for CN to 32.8% of S signs for AB. However, these figures are expressed as a percentage in relation to all signs, and thus are affected by the percentage of excluded signs. As these vary significantly across the three texts, a better measure of lexical choice is to look only at the subset of 652 signs consisting of the first three categories (BuSL, ISL and S). This has been calculated in Table 3.

INSERT TABLE 3 ABOUT HERE

Table 3 shows the distribution of our three target categories. This confirms that all three signers are indeed using a bilingual signing variety that includes substantial lexical contributions from both BuSL and ISL; none of the signers has a negligible, marginal number or percentage of signs in any of the categories. Results for CN must be considered with more caution as the number of tokens is much lower than for the other two texts; AB has over twice as many tokens in the text. The figures for AB are interesting in that there is a comparatively high number of ISL tokens (89, i.e. 31.8%) and a low number of BuSL signs (63, i.e. 22.5%). AB is the only signer who produces more ISL signs than BuSL signs. This finding is corroborated by several other observations that were made informally during fieldwork. We had already noticed before data collection that AB was conspicuous in using a larger number of ISL signs. She had spent four weeks in a residential deaf school in central India where Hindi was the predominant spoken language, and also spent a lot of time socialising with Indians outside the campus. AB is the only signer from Burundi who was ever observed using mouthings from Hindi. Many of the Indian students in the BA course tend to use English mouthings, but some also use Hindi mouthings. Thus the figures triangulate well with other observations. Interestingly, the result of focusing only on the three target categories is that now CN and SN look very similar, with differences of 2.6%, 0.3% and 1.3% over the three categories; only AB has a different pattern due to the stronger preference for ISL signs.

It is possible to think of the amount of BuSL, ISL and S signs in these texts in two different ways: on the one hand, we could consider the total number of signs (i.e. the tokens) in each category, as has been done in Table 3. On the other hand, we could consider how many different signs (i.e. how many types) are used in each category. This can be significant because it could be argued that producing a larger number of different ISL signs, though they may be fewer in total number of tokens, is a more significant ISL contribution to the text than using a few ISL signs repeatedly. We

have not aimed to pursue this argument in detail, although it is clear that type-token relationships are different across the signers. For instance, AB uses the ISL sign BETTER six times in the text, and the ISL signs MONEY, DIFFICULT and SOME four times each, while CN does not use any ISL sign more than twice, with the exception of I:WH (used five times).

With such reasoning in mind, Table 4 shows the number of types (i.e. different signs) in each category. The results confirm the figures from Table 3 in that CN and SN have very similar patterns, with differences no larger than 5.2%. Again, AB has a more divergent pattern, especially with respect to the larger number of ISL signs. We return to the possible significance of these figures, in combination with other data, in Section 7.

INSERT TABLE 4 ABOUT HERE

Another interesting conclusion from Tables 3 and 4 is that the number of ISL signs (either tokens or types) does not correlate with the length of each participant's stay in India. The signer with the longest exposure to ISL is CN, but his BuSL and ISL percentages are very similar to SN, who has had the shortest exposure to ISL. Contrary to what could be expected in this situation, it is not the signer with the longest exposure to ISL who uses the most ISL signs. Instead, it is AB whose signing shows a greater contribution by ISL than is the case for the two other signers.

5.2 *Lexical choice in negative clauses and WH-questions*

Returning to the main purpose of discussing negative clauses and WH-questions, we now turn to the respective contributions that BuSL and ISL make to the lexical expression of clause negators and question words. Strikingly, the data show that the patterns are quite different from what has been shown in Tables 2, 3 and 4, where there are no radical disparities between the three categories of signs.

For the clause negators and question words, an extended data set was used, consisting of all occurrences within the three 3-minute texts as well as all additional occurrences in the three corresponding video clips, i.e. within a total of 34 min 12 sec of video data. This was done in order to generate a sufficiently large number of example utterances on which to base more meaningful conclusions. The wider dataset also includes all negative clauses and WH-questions from the fourth signer, WK. For the purpose of the analysis here, cases where the same clause was repeated (either immediately or shortly after each other) were excluded, on the grounds that these do not constitute separate instances of negative clauses and WH-questions; 8 negators and 1 WH sign were excluded on these grounds. Moreover, there were 4 instances of a sign glossed CANNOT (see Figure 7), which is sometimes seen in Burundi but is considered by our participants to be a loan from neighbouring African countries. As this is also used as a foreign loan by many of the Indian students, this sign could not be assigned clearly to either BuSL or ISL, and these instances were also excluded from the analysis, although use of this sign is important for some of the arguments made in Section 6. The BuSL sign for 'cannot' did not occur in the data. This leaves a total of 97 clause negators and 47 question words for the analysis. Most clauses have just a single negator or question word, but there are instances with two negatives or two question words within the same clause (see Section 6 for a discussion of these).

INSERT FIGURE 7 ABOUT HERE

As discussed in section 4.3.1, BuSL and ISL have a shared pool of clause negators, as well as a shared negative predicate. A total of nine different negatives were identified in the data: 2 belonging to BuSL, 2 belonging to ISL, and 5 with a shared form between BuSL and ISL, i.e. in the S category. Table 5 lists the occurrences of all negatives in the data.

INSERT TABLE 5 ABOUT HERE

Several interesting observations emerge from these data. First of all, the basic clause negators B:NOT and I:NOT, which are distinct in the two sign languages, do not occur with any frequency, constituting only 8.2% and 9.3% of occurrences respectively. This is quite surprising, given that basic clause negators are widely applicable in negative clauses and represent the most neutral way of expressing negation. In particular, the use of B:NOT is very prevalent in the monolingual BuSL data. This sign is the same as in ASL, but is used in BuSL in a wider range of contexts. For instance, the bilingual data include utterances such as TAP B:NOT 'The tap is not working.' and BAG B:NOT 'The bag is not there.' However, despite this prevalence, B:NOT is rare in the data and is not used at all by SN and AB.[ix]

Instead of a prevalence of basic clause negation, we find that the negators in the S category clearly predominate, as they constitute 78.3% of all clause negators. Except for S:DON'T, all signs in the S category are more frequent than any of the B and I negators. S:NONE is particularly frequent and is the most frequent clause negator for all signers except SN.[x] CANNOT as in Figure 7, while of different origin and not included in this count, is also a shared sign. Other clause negators particular to BuSL or ISL do not occur in these data. Thus it seems clear that items in the "overlap" S category are privileged both in terms of their frequency and whether they occur at all in the data. The frequency of the three categories of signs is given in Table 6.

INSERT TABLE 6 ABOUT HERE

The distribution of WH-question signs in the data is quite different from the distribution of clause negators and the distribution of all B, I and S signs. First of all, the question word paradigms in BuSL and ISL are very different as described in Section 4.3.2. Apart from S:WHO, all question signs are distinct between BuSL and ISL. Thus we can only expect a very minor overlap at the lexical level. Instead, it is interesting to observe the choice between BuSL and ISL question signs. As can be seen in Table 7, this choice is far from balanced.

INSERT TABLE 7 ABOUT HERE

From the data in Table 7, the first imbalance we observe is in terms of the number of different question signs: While BuSL is represented with four different question signs, only a single ISL question sign, the general interrogative I:WH, is used. Not unexpectedly, this sign occurs with the greatest frequency, as it can stand for a wide range of interrogative meanings, and it is the only WH-sign that is used by all four signers in the data. However, what is striking is that there is not a single instance of a question word compound from ISL, and thus the ISL input into the bilingual conversational data is reduced to the most basic, general question word in the paradigm. All specific question words, including those meaning 'where' and 'who' with their available WH-compound signs in ISL, are monomorphemic and do not use the ISL question word compound strategy.

INSERT TABLE 8 ABOUT HERE

Table 8 shows the overall predominance of BuSL question words in the data. Just as with the S type negators, the BuSL WH-signs are prevalent both in terms of the range of signs used and overall frequency (51.1% of WH-signs are particular to BuSL). However, it should be pointed out that the data on WH interrogatives are limited in that for most question signs, there are only a few tokens, due to the narrative, non-dialogic nature of the 3-minute texts that constitute the main source of data. Therefore, it would seem that the very restricted range of ISL interrogatives is a more important finding than the frequency counts.

The function of I:WH signs in clauses is of particular interest to the discussion of the data at clause level in Section 6. We argue that the selection of negators and WH interrogatives by the signers does not constitute merely lexical choice. These choices also have consequences for the construction of the negative and interrogative clauses in which they occur, and this topic is explored in Section 6. It is in this qualitative analysis that WH-signs are important despite not being highly frequent in the data.

5.3 *Lexical choice in discourse*

In much of the data, there is a continuous to-and-fro between signs from BuSL, signs from ISL, and signs that are shared between the two. Typically, any given clause includes at least two of the three sign categories, and often there is more than one switch within a single clause. There are very few instances in the data of clauses that are entirely in BuSL or in ISL. The existence of many signs that cannot unambiguously be assigned to either of the two languages makes it very difficult to determine switch points between BuSL and ISL. Examples from spoken languages such as (1) above with English *what* and Dutch *wat*, with the shared lexical item argued to facilitate a switch to the other language, seem to imply that there are few such items available. In a situation where such shared items are numerous, the effect is that the distinction between parts of clauses in different sign languages becomes blurred, and it is very difficult to determine switch points in the way that has been done for spoken languages. This issue is very evident in our data and is partly a result of the visual-gestural modality including a higher level of iconicity.

The text below, taken from SN's discourse, exemplifies these patterns. To illustrate the interplay between the different sign categories, the text examples in this section are represented on three lines, with one line for each sign category and the shared S signs in the middle. Where parts of the text have been left out, this is indicated by (…) in the transcription.

Clip 3, 02:50 – 03:11, SN

(4a) B:LIKE B:DIFFCULT
S:IX3 S:NONE / S:IX3-dist S:SOLVE
I:INDIA I:DIFFICULT+
'She did not like India. To resolve this with all of them was very difficult.'

(4b) B:MOTHER B:MY B:MOTHER B:ACCEPT B:BUT B:ACCEPT
S:FAMILY (…)
I:NOT / I:DIFFCULT

'My mother accepted, but my family did not accept; it was difficult.'

(4c) B:COUSIN B:THIRD B:COUSIN B:SISTER
S:INTERPRETER S:PHONE S:PHONE S:FIRST S:PHONE

S:PHONE S:DISCUSS
I:DIFFICULT
'An interpreter phoned my third cousin, phoned my first cousin, phoned my sister, and it was difficult, discussing on the phone.'

(4d) S:HEY (false start) S:FLY S:WHO S:PICK-UP S:WHO(…)
I:INDIA
'Listen, when she flies to India, who will be picking her up?'

(4e) B:C-H-A-R-L-E-S B:FINE
S:KNOW S:BEFORE S:IX3
I:START I:INDIA I:EXISTENTIAL
'You know, Charles, he has started (studies) and is already in India, so that is fine.'

It remains to be seen whether such patterns are also characteristic of other sign language combinations in bilingual interactions between signers. Within the three example texts examined here, parts of AB's text stand out as qualitatively somewhat different. AB's text contains sections with no or minimal BuSL signs, and this is not the case with the other two signers, who use BuSL signs more continuously. The following text segment exemplifies AB's style with a higher proportion of ISL signs; the only BuSL sign is B:WHY. AB's text also includes other sections that are more in line with CN's and SN's co-use of ISL and BuSL, but the existence of ISL-dominant text segments supports earlier observations about AB's greater preference for ISL signs compared to the other signers.

Clip 2, 04:39 – 04:49, AB

(5a) S:CYNTHIA S:BOTH S:SHARE S:PROGRESS
I:GOOD
'Cynthia and I were both progressing well together.'

B:WHY
(5b) S:FEEL S:IX1 S:FLY
I:STUDY I:DIFFICULT I:BUT I:ENGLISH I:BASIC I:SOME
'I felt it was difficult to study, but because when I came here, I only had some basic English.'

(5c) S:IX1 S:FEEL S:LITTLE S:PROGRESS S:FEEL
I:BUT I:PRACTICE I:BETTER
'But I felt with practice I could progress a little and felt better.'

(5d) S:IX1 S:NONE
I:YEAR I:WH I:FEAR
'In one year, what (would happen), I was not scared.'

Usually, the choice of lexical items in the texts seems to be unconnected to the content of the discourse. One exception is part of the story by CN, where he reports on interactions with a female staff member at the Indian border crossing. While the preceding text has both BuSL and ISL elements, some of the reported interactions with the Indian woman are predominantly in ISL, with no BuSL signs, as is the segment starting from (6b) below:

Clip 5, 04:07 – 04:25, CN

(6a) B:WHERE / _____hs B:BUSY /
S:IX1 S:THINK S:IX1 S:THROUGH S:PALM-UP (…) / S:IX1 S:IX3 I:GIRL
'I thought where am I going to go through? No idea. I (saw) a girl there, busy.'

(6b) S:HEY S:IX1 S:DEAF S:PALM-UP /
'Excuse me, I am deaf.'

(6c) I:GIRL I:WH I:PASSPORT
(nmn: staring action) / S:WRITE S:IX2 S:GO (…) S:HEY S:GIVE-IT-HERE
'The girl stared at me. She wrote "Where are you going?" (…) "Give me your passport."'

This segment is clearly intended to reconstruct the scene linguistically, although of course the border agent was a non-signer. Thus the text contains not only ISL signs but also gestural elements (non-manual staring action, PALM-UP with headshake, and the sign glossed GIVE-IT-HERE). However, this ISL-dominant pattern is not sustained throughout the text, and further reported conversations with the Indian woman do use BuSL lexical items.

In addition to lexemes shifting between categories, the data also contain a good number of instances of what has been called "reiterative code-switching" (Quinto-Pozos & Adam 2013:389) and involves the repetition of the same concept expressed with lexemes from two different languages. This can occur either in immediate adjacency (examples 7-9) or with a few signs or a short clause intervening (see examples 17 and 18 in Section 6).

(7) S:IX3-dist S:SOLVE I:DIFFICULT+ B:DIFFCULT – clip 3, 02:52, SN

'To resolve this with all of them was very difficult.'

(8) B:FATHER B:MONEY I:MONEY B:MONEY S:THERE I:PLUS I:ADD-UP-TOTAL S:OK S:AGREE
'My father agreed to gather the funds.' - clip 3, 02:13, SN

(9) B:HOLIDAY I:HOLIDAY S:IX1 $S:_{r}FLY_{l}$ $S:_{l}FLY_{r}$ S:IX1 S:NO - clip 2, 02:07, AB
'During holidays, I do not fly over (to Burundi).'

Reiterative code-switching is perhaps the most overt indication that throughout a conversation between bilinguals, there is a constant opportunity for choice as to which language contributes which lexemes. It can occur either without any obvious function, or for emphasis. For instance, 'difficult' is emphasised in example (7), by first repeating the ISL sign and then adding the BuSL sign, thus resulting in multiple expressions of the concept. Moreover, that signers are conscious of their choices is further evidenced by the occurrence of false starts in the data, which sometimes overlap with reiterative code-switching. Thus in a false start, production of a sign from one language may be

initiated first, sometimes only partially, and then the signer interrupts him-/herself to choose the equivalent lexeme from the other sign language instead. Two examples are shown in (10), with the first sign fully formed followed by a short hesitation, and in (11), with the first sign partially formed and then replaced.

(10) I:INDIA I:LIKE (hesitation) B:LIKE S:IX1 I:NOT clip 3, 01:08, SN

(11) I:ENGL.. B:ENGLISH clip 11, 05:36, CN

As we have seen in this section, the choice of lexemes in a bilingual signed discourse is clearly a complex matter that cannot be reduced to a single factor. For further discussion of the functions of code-switching in our data, see Section 7.

6. Grammatical patterns in negation and WH-questions of BuSL-ISL bilinguals

In this section, we investigate the grammatical patterns found in negative clauses and WH-questions. In particular, the aim is to gain some insight into the ways in which the two grammars of BuSL and ISL combine with the lexicons in the construction of clauses. Therefore, this section focuses on the level of the clause.

Table 9 shows the summary of data from both the three-minute narratives and the other clauses appearing throughout the half-hour conversation. As the Table shows, these data amount to a total of 90 negative clauses and 43 WH-clauses. Occasionally, the arguments also draw on other types of clauses in the data.

INSERT TABLE 9 ABOUT HERE

As far as negation is concerned, the grammars of BuSL and ISL are largely compatible, as seen in Section 4.3.2. In addition to a substantial number of shared signs that are clause-final negators, this overlap is further supported by the fact that most other clause negators in BuSL and ISL are also clause-final. In fact, only the sign CANNOT, which is neither from BuSL nor from ISL, occurs in pre-verbal position in the data, while in all other instances of negation the negators occur in clause-final position. The role of non-manual negation in these languages has not been investigated in this research.

Thus it would seem that negation in the bilingual mode is close to what Muysken (2000) terms “congruent lexicalisation”. Congruent lexicalisation applies when “the two languages happen to display the same word order in the two languages according to their specific grammars “(Donati & Branchini 2013:107), and this is the case for most of the BuSL-ISL bilingual examples with negatives. Thus there is a single, overlapping grammatical structure that can be filled in with lexical material from either language ad libitum. This structure consists of Argument(s)-Predicate-Negator word orders and their variants, e.g. clauses with adjuncts or with repeated subject pronouns as arguments (examples 12 and 13). Exceptionally, example (14) shows a clause with CANNOT preceding the main verb; other clauses with CANNOT in clause-final position are also attested.

(12) B:MOTHER S:TELL$_3$ S:NONE clip 3, 02:29, SN
'Mother said nothing.'

(13) S:DEAF B:GOVERMENT B:SUPPORT I:CLEAR S:NONE clip 2, 00:23, AB
'It is not clear (how) the government supports deaf people.'

(14) S:$_3$TELL$_1$ CANNOT S:$_3$HELP$_1$ clip 2, 04:28, AB
'He told me he could not help me.'

One major difference between BuSL and ISL grammars arises from the fact that BuSL also allows SVO word orders,[xi] while these are ungrammatical in ISL, which is a strongly head-final language and does not allow objects to follow main verbs (Zeshan 2003). SVO word order does occur with some regularity in the data (there are 11 SVO clauses), but none of them is a negative clause. WH-questions with SVO word order are discussed below.

Looking at those clause negators that are particular to BuSL and ISL, the question arises as to the language of other lexemes in the same clause. For instance, is it just as likely to have a combination of an ISL verb with a BuSL negator as it is for a BuSL verb to combine with a BuSL negator? Indeed, we find examples of all combinations in the data. In (15) and (16), the ISL basic clause negator I:NOT is combined with verbs from both sign languages.

(15) B:MY B:MOTHER B:ACCEPT B:BUT S:FAMILY B:ACCEPT I:NOT clip2, 02:56, SN
'My mother accepted, but my family did not accept.'

(16) B:MOTHER S:IX1 S:BEFORE S:IX1 S:CHOOSE+ B:COUNTRY / S:SIDONIE I:LIKE I:NOT / I:LIKE I:NOT / I:LIKE I:NOT
'My mother (said), I had chosen countries before, but Sidonie doesn't like any of them.'

Examples such as (17) and (18), which are instances of reiterative code-switching akin to those discussed in Section 5.3, are particularly interesting in that the verb or predicate is repeated in both sign languages. Although in (17), it is not entirely clear whether the negator actually negates the verb, and (18) has an S negator, such utterances do suggest that the choice of verb in bilingual utterances is probably not influenced by the choice of negator, and vice versa. It seems that verb and negator can combine freely as long as they are in the word order that is grammatical in both languages.

(17) B:GIRL thoughtful-expression B:SEARCH B:OFFICE S:IX-circular I:SEARCH B:NOT / S:IX-circular B:SEARCH B:NOT
'The girl thought about it and searched (my bag) everywhere around the offices. Searching everywhere had no result.' Clip 5, 05:54, CN

(18) I:PROBLEM S:NONE / S:IX2 S:KNOW / B:PROBLEM S:NONE – clip 3, 09:31, WK
'There is no problem, you know, no problem.'

In WH-questions, there is less grammatical overlap between BuSL and ISL, just as there is little lexical overlap as discussed in Section 5.2. Again, it is ISL that has the more constrained constituent order: the only acceptable order is argument(s)-verb/predicate-interrogative, with the exception of the foreign borrowing S:WHO, which can be clause-initial. In BuSL, argument(s)-verb/predicate-interrogative is also a possible word order, though it may not be applicable equally to all BuSL question words; this has not been investigated in detail. Examples such as (19) and (20) are

compatible with both grammars and therefore, bilingual utterances can function under congruent lexicalisation. Again, these two utterances are similar except that the question word is from BuSL in (19) and from ISL in (20).

(19) B:PLAN S:FLY S:IX2 S:THINK S:THERE I:INDIA S:THINK B:WHAT (…) clip 3, 06:32, CN
'As you were planning to fly, what were you thinking about India?'

(20) S:IX2 S:THINK I:INDIA S:THERE S:THINK I:WH clip 3, 06:41, CN
'What were you thinking about India?'

However, several other grammatical options occur in the data that are ungrammatical in ISL, and it is reasonable to assume that they are carried over from BuSL, especially as all of them are available in ASL. These WH-questions include the following structures:

a) Clause-initial question signs

There are several examples of clause-initial WH-signs in the data where the utterance is an interrogative clause type. The most common clause-initial WH-sign is B:WHY, but in the majority of cases, this is used as a conjunction 'because'. B:WHY as an initial interrogative is shown in example (21), and example (22) uses initial B:WHERE (note that this is a multiple WH-question in the English translation, but in the signed utterance, the second WH-question has no overt question sign). I:WH does not occur clause-initially except as a conjunction (see example 26d below). Example (23) shows a subordinate conditional clause followed by S:WHO at the beginning of the main clause; it is unclear whether this is a possible construction in ISL, but the equivalent construction with the ISL compound interrogative I:FACE+WH is certainly ungrammatical in this case.

(21) B:WHY I:LIE S:IX1 / S:UNDERSTAND I:FAIL clip 2, 06:26, AB
'Why did they lie to me? I don't understand.'

(22) B:GIRL B:WHERE S:IX2 B:FROM S:FLY S:IX-fly I:NAME clip 5, 06:08, CN
'The girl (asked): Where did you fly in from with which airline?'

(23) _____cond
I:BUT B:HAPPEN I:INDIA B:HAPPEN S:SICK S:WHO B:CARE B:HERE - clip 3; 03:44, SN
'But if (you) should get ill in India, who will take care here?' (i.e. now that I am here)

b) Multiple WH-questions

In multiple WH-questions, there is more than one question word in the clause, and more than one piece of information is being sought using one and the same clause. In ISL, a multiple WH-question needs to be split up into several clauses because two clause-final question signs cannot compete for the single available syntactic slot. As S:WHO may be clause-initial, this may open an option for a multiple WH-question in monolingual ISL, but the grammaticality of such a construction has not been investigated for ISL. In the bilingual data, we find an example of clause-initial S:WHO in combination with a second clause-final question word both from BuSL (example 24).

(24) S:WHO S:KAKOOZA B:WHERE clip 5, 07:27, CN
'Who and where is Kakooza?'

c) Doubling of WH interrogatives

In some sign languages, WH-signs constitute one of the sign categories that may be doubled within a single clause, usually clause-initially and clause-finally. This construction is exemplified in (25), with a subordinate clause followed by the main WH-interrogative clause. Doubling of WH-interrogatives does not occur in monolingual ISL.

(25) S:HEY I:INDIA (false start) S:FLY S:WHO S:PICK-UP S:WHO clip 3, 03:13, SN
'Hey, when you fly to India, who will be picking you up?'

These examples indicate that the WH-signs from BuSL and ISL are used in accordance with the grammatical patterns and constraints of their respective source languages. [xii] Similarly, CANNOT in example (14) is pre-verbal because this is a structural possibility in its source languages, while I:CANNOT is always clause-final in the data, as it is in ISL. Further confirmation for the view that WH interrogatives carry over the grammatical patterns of their source language into the bilingual discourse comes from the use of I:WH, which is used with exactly the same range of functions and syntactic positions as in monolingual ISL. I:WH is commonly used in ISL to mean 'what', 'how' and 'why', as there are no separate lexical interrogatives for these meanings (Zeshan 2000). In addition, I:WH is also used as a complementiser following certain predicates such as verbs of communication ('say that...'), and it is used clause-initially as a conjunction 'because' (Panda & Zeshan 2006). These same functions occur in the bilingual data as illustrated in examples (26a-d):

I:WH meaning 'what'
(26a) S:BIBLE B:NAME B:ENTER B:STORY I:WH – clip5, 02:38, SN
'What is the name of the story in the Bible?'

I:WH meaning 'how'
(26b) I:I-F S:IX1 S:ARRIVE S:IX1 I:RENT I:WH – clip 2, 04:10, AB
'If I arrive, how will I pay the rent?'

I:WH as complementiser 'that'
(26c) I:LAST S:IX3 S:SAY S:WH – clip2, 00:40, AB
'At last, he said that…'

I:WH as conjunction 'because'
(26d) I:BUT S:FEEL S:IX1 I:DEVELOP S:NONE I:WH I:STUDY S:NOTHING – clip 2, 00:19, AB
'But I felt I had not developed because I had not studied.'

It is worth pointing out that while negators and question words are used in accordance with the grammatical patterns of their respective source languages, preliminary evidence suggests that this may not be the case for other sign classes. Again, in order to demonstrate this, we look at constructions that are known to be ungrammatical in ISL, as we do not have sufficient information about constructions which would be ungrammatical in BuSL. Examples (27) - (29) show ISL verbs used in constructions which are ungrammatical in ISL, namely SVO constituent order in (27), main verb followed by complement in (28), and modal followed by main verb in (29).[xiii] In ISL, modals are clause-final like other functional signs, but pre-verbal modals occur in BuSL, as in the phrases B:NEED

S:SEE and B:NEED S:GIVE-PAPERS, in the data from CN. Similarly, ISL predicates co-occur with BuSL negators and vice versa, as discussed above.

(27) S:IX1 I:SEARCH B:V-I-S-A S:IX3 clip 2, 03:42, AB
'I looked for the visa.'

(28) I:START S:IX1 I:SEARCH clip 2, 03:42, AB
'I started searching.'

(29) S:$_3$TELL$_1$ S:IX1 S:ALONE B:CAN I:D-O clip 2, 05:54, AB
'He told me I could do it alone.'

Another way of looking at these examples is to emphasise that the predicates in the above examples do not contribute to the grammar of the clause. This makes the use of I:SEARCH and I:D-O appear akin to insertion as defined by Muysken (2001), which is defined as material from one language appearing in a structure from the other language, with the latter providing the grammar of the clause. An inserted word or constituent does not contribute to the grammar of the clause.[xiv] Signs from open lexical classes can be inserted in this way and are used within the grammar of the 'host' sign language, making it possible for the above ISL verbs to be used in non-ISL constructions, such as ISL SEARCH being used in an SVO construction in (27). This agrees with the observation in Muysken (2001:63) on Bolivian Quechua and Spanish that inserted elements "tend to be content words rather than function words". Although we have identified only a few such clauses in our data, they demonstrate at least the possibility of insertion with signs from open lexical classes.

On the other hand, this section has demonstrated that signs from closed grammatical classes such as negators and WH-interrogatives cannot be subject to insertion into a clause with a conflicting structure. An apt explanation is that when choosing a sign with a grammatical function for the construction of a bilingual utterance, the sign cannot be dissociated from its grammatical rules and constraints. Instead, signs from closed grammatical classes seem to carry over their grammatical properties into the bilingual utterance, which is why they cannot be used in constructions from the other sign language when the grammatical structures would conflict. By contrast, so far there is no evidence in our data of signs from open lexical classes bringing any grammatical constraints along with them when integrated into a bilingual utterance.

7. Discussion and conclusions

It is well known from literature on code-switching in spoken languages that bilingual language use including code-switching can serve as a marker of social identity and be indicative of various factors within social actions and interactions (e.g. Romaine 1989, Heller2007), including in Deaf communities (cf. contributions in Metzger 2000). Auer (1995:116) takes the perspective of the bilingual language user seriously and states that "it is the task of the linguist […] to reconstruct the social processes of displaying and ascribing bilingualism." Thus the choice of language in groups of bilingual people may depend on multiple factors including the participants in the conversation, the topic(s) of the conversation, and the relative status of both languages (e.g. Heller 2007 on code-switching and power relationships). In the BuSL-ISL bilingual data, the approach used in this research

has been successful in eliciting conversations where all participants use significant amounts of code-switching. From the data analysed so far, it seems that the mixing of the two sign languages as such is the main factor motivating these data. With few exceptions, it was not obvious in the data that either BuSL or ISL is preferred for particular topics or situations.

One exception was observed in the text by CN, as discussed in Section 5.3, when CN reports on his interaction with a female hearing staff member at the Indian border crossing. However, as mentioned before, this is not a consistent pattern throughout the signed text. Both SN and AB report lengthy discussions with their families in Burundi, but there is no conspicuous use of increased BuSL signs or absence of ISL signs. ISL signs occur freely even when the participants report conversations with family members in Burundi.

From the evidence discussed in this article, it seems that the Burundian students living in New Delhi have developed into a small 'community of practice', along the lines of what Eckert & McConnell-Ginet (1992) discuss in a different context, for language and gender: "A community of practice is an aggregate of people who come together around mutual engagement in an endeavour. Ways of doing things, ways of talking, beliefs, values, power relations – in short, practices – emerge in the course of this mutual endeavor" (Eckert & McConnell-Ginet 1992: 464, see also Lave & Wenger 1991). In this case, this small community of practice is characterised by their shared life experiences and intensive contact with each other during their stay in India, and bilingual sign language communication is obviously an important aspect of the community's "ways of talking".

Linguistically, this is reflected in a range of shared characteristics of their bilingual outputs analysed here, and we argue that this small group of students has developed a relatively stable bilingual linguistic variety. Although it has been noted that there are some individual particularities, such as the use of Hindi mouthings by AB, it is also possible to pinpoint the characteristics of the linguistic variety used by all three signers (and also evident, though based on less data, in the fourth signer WK). The linguistic variety used by this bilingual community of practice is thus characterised by the following features:

- Consistently substantial contributions of both BuSL and ISL signs, with similar proportions, especially in terms of types
- Considerable use of the available pool of shared signs that exist in both sign languages
- Strong preference for S negators
- No ISL compound WH-signs
- Signs from closed grammatical classes follow patterns of the source language
- Signs from open lexical classes may not follow patterns of the source language

These preferences and patterns are not in any way more natural or obvious than any others. For example, it would be perfectly feasible for each person to have very different proportions of BuSL and ISL signs, or for one signer to use only ISL-type WH compounds and another signer to use only BuSL interrogatives. However, this is not what we see.

Additional strong evidence for the fact that the bilingual linguistic variety develops with some consistency within the group comes from errors in the use of ISL signs. As all participants have been learning ISL as an additional language for varying length of time, it is natural that they do not always successfully acquire native-like ISL. What is interesting, however, is that we can pinpoint errors made by several participants in the same way. One of these is the sign I:DIFFICULT (see Figure 8). In ISL, this is articulated with a closed fist hand shape and a small repeated up-and-down movement.

However, all four of our participants sometimes produced this sign differently, with repetition at two different points of articulation to the right and left of the signer. This is never seen in ISL and is an acquisition error that has apparently spread throughout the group of Burundian students.

INSERT FIGURE 8 ABOUT HERE

The research conducted here has had very few, if any, precedents, and therefore, there had been no specific expectations as to what the bilingual signed communication might look like in this group. Thus the observations made here have been genuine novel discoveries; we have seen that lexical choices and grammatical patterns of code-switching are not random but follow certain regularities as discussed above. It has also become apparent that some of the research questions addressed in spoken language linguistics in the domain of code-switching are not easily applicable to the bilingual signed discourses investigated here, such as the Matrix Language-Embedded Language distinction, and the discussion of possible switch points between two languages. Most importantly, this research has contributed to the very scarce data on unimodal sign language bilingualism, and we have demonstrated how research questions and methodologies for tackling them can develop in the case of bilingual sign language data. It is hoped that further work on other combinations of sign languages in bilinguals may either support or qualify the findings reported in this article in the near future.

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Authors' contact:

Prof Ulrike Zeshan
International Institute for Sign Languages and Deaf Studies
University of Central Lancashire
Preston PR1 2HE, UK
uzeshan@uclan.ac.uk
Tel. +44-1772-893104
Fax +44-1772-894933

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Tables

Clip number	Clip time	Transcribed text length within clip	Signer of transcribed text
2	11 min 48 sec	2 min 50 sec	AB
3	11 min 25 sec	3 min	SN
5	10 min 59 sec	2 min 56 sec	CN
Total	34 min 12 sec	8 min 46 sec	
Relevance of data	For clauses containing negatives and WH-questions only	Word counts across all signs and analysis of lexical choice in discourse	

Table 1: Video data summary

Participant	*All signs*	*BuSL*	*ISL*	*S*	*IX*	*SASS/CL*	*Other*
AB	390	63 16.2%	89 22.8%	128 32.8%	71 18.2%	21 5.4%	18 4.6%
SN	308	92 29.9%	50 16.2%	93 30.2%	15 4.9%	12 3.9%	46 14.9%
CN	293	51 17.4%	31 10.6%	56 19.1%	41 14%	85 29%	29 9.9%
Total	991	206	170	277	127	118	93

Table 2: Frequency of sign categories: All signs

Participant	*All tokens*	*BuSL tokens*	*ISL tokens*	*S tokens*
AB	280	63	89	128

		22.5%	31.8%	45.7%
SN	235	92 39.1%	50 21.3%	93 39.6%
CN	137	50 36.5%	31 22.6%	56 40.9%
Total	652	205	170	277

Table 3: Frequency of sign categories: BuSL, ISL and S tokens

Participant	All types	BuSL types	ISL types	S types
AB	140	39 27.8%	48 34.3%	53 37.9%
SN	104	35 33.7%	27 25.9%	42 40.4%
CN	81	25 30.9%	19 23.5%	37 45.6%
Total	325	94	87	144

Table 4: Frequency of sign categories: BuSL, ISL and S types

B:NEVER	2	2.10%
B:NOT	8	8.20%
I:CANNOT	2	2.10%
I:NOT	9	9.30%
S:DON'T-KNOW	11	11.30%
S:DON'T	3	3.10%
S:NO/NOT-AT-ALL	15	15.50%
S:N-O	11	11.30%
S:NONE/NOTHING	36	37.10%
Total	97	100.00%

Table 5: Frequency of clause negators

B negators	10	10.30%
I negators	11	11.40%
S negators	76	78.30%
Total	97	100%

Table 6: Categories of clause negators

B:HOW	6	12.80%
B:WHAT	2	4.30%
B:WHERE	3	6.40%
B:WHY	13	27.70%
I:WH	18	38.20%
S:WHO	5	10.60%
Total	47	100.00%

Table 7: Frequency of WH-interrogatives

B interrogatives	24	51.10%
I interrogatives	18	38.30%
S interrogatives	5	10.60%
Total	47	100.00%

Table 8: Categories of WH-interrogatives

Texts		
Clip number	Negative	WH
2	14	9
3	12	2
5	13	9

Total	39	20
Other clauses		
Clip number	Negative	WH
2	15	3
3	14	10
5	22	10
Total	51	23
Total all	**90**	**43**

Table 9: Data summary of negative and WH-clauses

Notes

[i] The term *Indian Sign Language* is used here in the sense of representing the urban sign language varieties within India, although sign language varieties across the border in Pakistan constitute dialects of one and the same language otherwise labelled *Indo-Pakistani Sign Language* (cf. Zeshan 2000).

[ii] This was in marked contrast with the two signers from China, for example, who were never seen using Chinese signs with one another.

[iii] These are the native languages of the original contributor populations to the development of a Creole, such as the slave populations from various West African countries that were involved in the formation of Creoles in the Caribbean (see Lefebvre 1998).

[iv] One important enclave using an ASL lexicon (though not always an ASL grammar) is in Bangalore, due to the presence of a large deaf school. Other ASL users are individuals who have spent time in the US and returned to India, but these individuals do not tend to form any coherent linguistic sub-groups in India.

[v] Thus the variants combined under the gloss S:NONE with different handshapes and movements, and those combined under the gloss S:NO with different handedness and movement patterns, could well be considered separate signs if warranted by a detailed analysis of BuSL and/or ISL separately. However, they have been combined here under the same glosses, and separating out variant forms would make no difference for the conclusions arising from their analysis.

[vi] These authors use various glosses other than PALM-UP to describe the respective signs. We refer to all these signs as PALM-UP here merely for the sake of comparison.

[vii] This also includes signs of visual perception that are made with extended index and middle finger, glossed SEE, WATCH, etc. Although these signs are not always included in the CL category in linguistic analyses of sign languages, it makes sense to subsume them under CL in this case as the aim has been to exclude signs that are highly visually motivated.

[viii] SA signs are “similarly articulated” signs.

[ix] Of course this does not mean that these signers never use B:NOT in their bilingual interactions; these observations apply to the snapshot of data analysed for this particular research.
[x] However, total frequency counts for all negators are low for SN (between 1-4 instances each), so this observation is not really meaningful.
[xi] Sometimes SVO order seems to be required in BuSL. In one of the elicitation sessions, the participants rejected some of the SOV clauses we discussed as ungrammatical and insisted that the word order must be SVO. This line of inquiry has not been pursued further.
[xii] There is just one possible example of WH-doubling with I:WH in the data (I:WH S:BAG I:WH 'Where is the bag?'), but this is where CN reports on his communication with the hearing woman at the border, and the communication style here is peculiar in that it uses ISL signs in a way that more closely matches the conversational gestures used by hearing Indians. Thus this does not represent strong counter-evidence.
[xiii] As all examples are from the same signer, this needs further investigation to check if other signers also produce similar utterances elsewhere in the data corpus.
[xiv] Considering these examples as proper instances of insertion may require disregarding the occurrence of S-type signs, and the absence of B-type signs in example (28). However, this has no bearing on the motivation for discussing insertion here, which is to show that the ISL verbs are used in non-ISL structures.