Code-mixing in fingerspelling: a unique type of same-language switching in individuals bilingual in two sign languages

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Introduction

The relationship between majority and minority language communities has often been examined, but it is not known what happens in communities where there are majority and minority sign languages, and whether the relationship between the two communities and their languages resembles that found in spoken languages. In the Australian Deaf community there is a minority Deaf community of people bilingual in two unrelated languages: Australian Sign Language (Auslan) and the Australian dialect of Irish Sign Language (AISL).

As well as differences between the sign languages, the manual alphabets used in association with these two sign languages differ: the Irish manual alphabet is a 1-handed alphabet, while the Auslan manual alphabet is 2-handed.

There were marginally more code switches to Auslan than AISL, although the percentages for each were close to 50%.

Switches involving fingerspelling

Doubling:

Deuchar et. al. (2007) define doubling as when a switch occurs where "the semantic value of the switch is the same as that of another morpheme in the original language also found in the utterance", or when an item in an utterance is repeated in the other language. Doubling is distinct from reduplication in spoken languages, which refer to phonological and morphological processes. In the following examples, AISL is in **blue** and Auslan is **red**:

Example 1 DOUBLING WITH A SIGN IN THE OTHER LANGUAGE: **POSS1 MOTHER MOTHER FATHER GONE** *my parents left*

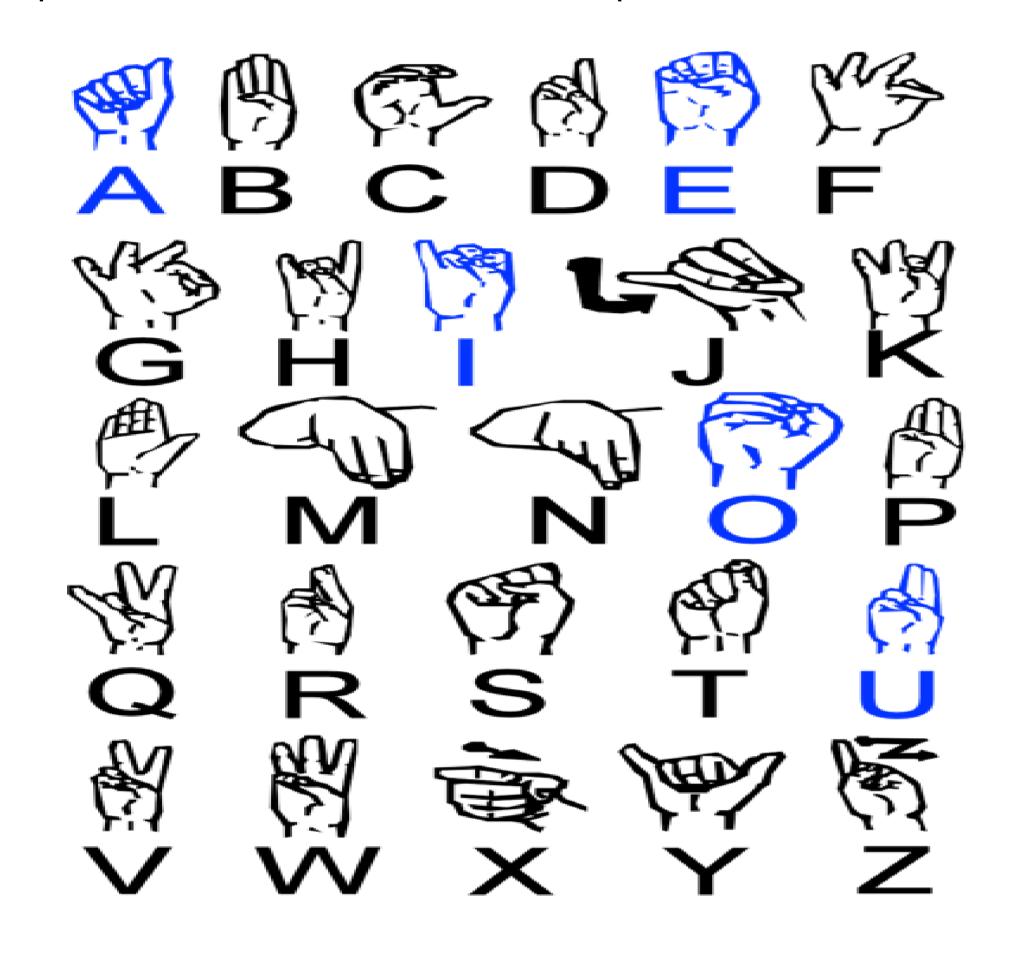
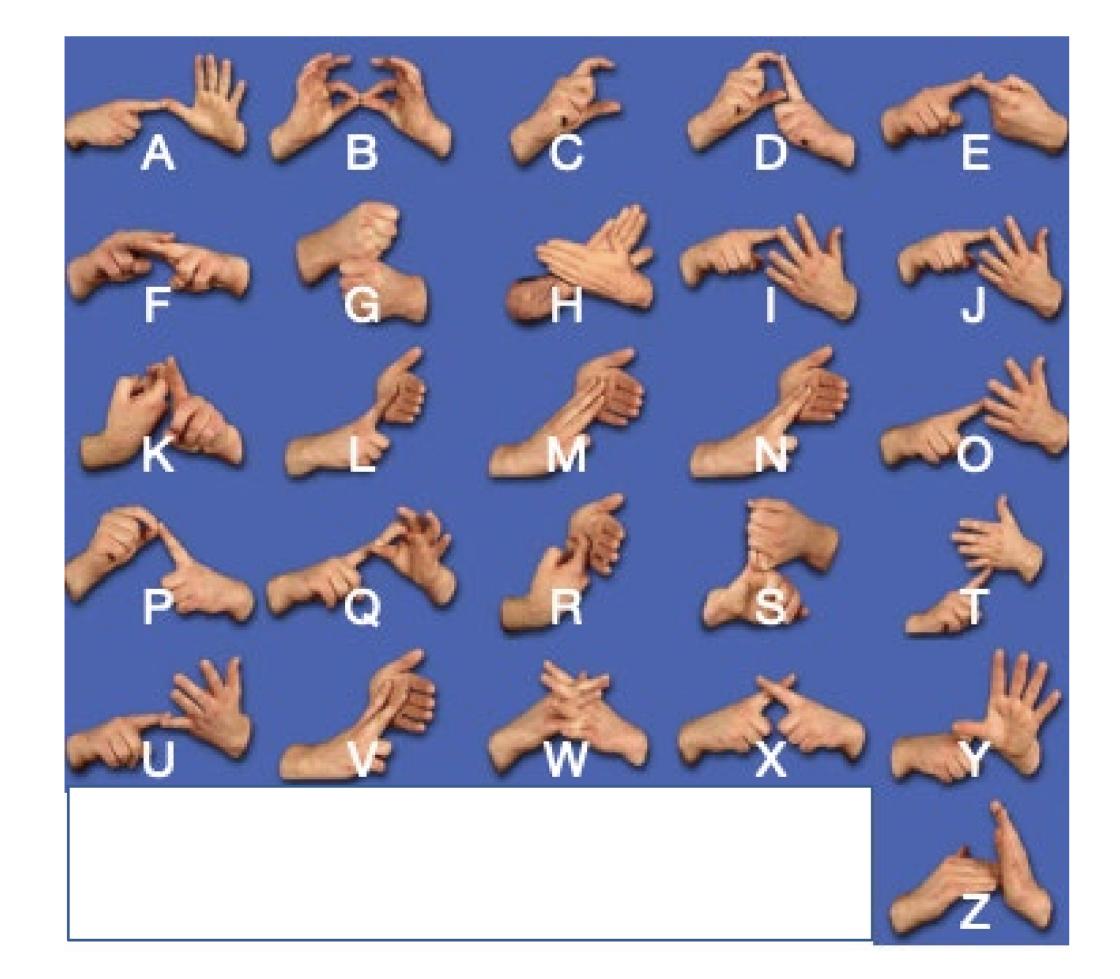


Figure 1: AISL Fingerspelling chart (<u>https://deafsocietynsw.org.au/aged_care/page/the_one_handed_alphabet</u>, retrieved 1 December 2016)



Example 2 SWITCHING FROM AUSLAN TO AISL FINGERSPELLING REMEMBER PRO1 WRITE e-n-g-I-i-s-h WHEN PRO3pl CORRECT PRO1 LITTLE NOT-UNDERSTAND UNDERSTAND w-h-y

I remember they would correct my English when I wrote things [in school] and I never completely understood why.

Example 3 DOUBLING (AUSLAN FINGERSPELLING TO AISL FINGERSPELLING) **w-e WEATHER FUNNY f-u-n-n-y** *The weather is a bit funny these days*

Example 4: INTRA-WORD SWITCHING (ENGLISH-SUFFIX): HOT-e-s-t Hottest

The occurrence of switching involving fingerspelling was coded in 10 minute stretches of conversation for 9 participants .

In the data as a whole there were 76 fingerspelling switches.

- 1. 3 were supplied signs (i.e. one participant prompted the other with a sign for example, when one participant struggled to produce a sign or had difficulties with language choice. In all 3 of these switches AISL was the matrix language.
- 2. fingerspelled switches with doubling (n=21);
 - a) Where Auslan was the matrix language (n=1)
 AISL to Auslan fingerspelling doubling (n=1)
 - b) Where AISL was the matrix language (n=20)
 Auslan sign to AISL f/s (n=14)

Figure 2: Auslan fingerspelling chart: (http://www.auslan.org.au/spell/twohanded.html)

The small and ageing AISL Deaf community attended Catholic schools for the deaf in Australia where AISL was the medium of communication, learning Auslan in as young adults.

Adam (2016) analyses conversational and interview data with 11 members of this multi-lingual community, who also use written English, and provides an analysis of types of code mixing/switching between the two sign languages, including data on doubling (where a sign is produced twice – first in one sign language and then in the other). Ten minute stretches of conversation were coded for 9 of these 11 participants .

Auslan f/s to AISL f/s (n=1) AISL sign – AISL f/s (n=1) AISL f/s – AISL f/s (n=4) There are no examples of AISL fingerspelling doubling to an Auslan sign.

- 3. fingerspelled switches **without doubling** (n=52):
 - a) Where Auslan was the matrix language (n=6)
 AISL sign to Auslan f/s (n=4)
 AISL f/s to Auslan sign (n=2)
 - b) Where AISL was the matrix language (n=46) Auslan f/s to AISL f/s (n=1) Auslan sign to AISL f/s (n=45)
- In both types 2 and 3, the most frequent type of switch is Auslan sign to AISL fingerspelling.
- Doubling occurs more frequently when AISL is the matrix language, with insertion of an Auslan sign followed by AISL fingerspelling. It occurs much less often when Auslan is the matrix language.
- Switches without doubling occur more when AISL is the matrix language, and most often consist of an Auslan sign followed by an AISL sign.

Discussion

Evidence from code switching involving doubling indicates that although AISL is this group's first language, their AISL has undergone attrition, as a minority sign language in the Australian deaf community, and consequently it is more difficult for them to maintain conversations in AISL, even though they were encouraged throughout the conversations to use AISL.

Although the term 'code switching' is broadly used in both spoken and signed

Code-switching in the data:

There were clauses (n=21) in which doubling involved a switch to the manual alphabet associated with the other sign language, a total of 11.4% of all clauses (n=184) coded.

	Number	Percentage
Code switches to AISL	86	46.7%
Code switches to Auslan	94	51.1%
Indeterminate	4	2.2%

language research to refer to changes between two languages, switching involving AISL and Auslan fingerspelling does not involve a direct language switch – since in both languages fingerspelling is used to represent English. Thus questions arise as to the nature of this type of switching and what drives it.

The very high number of switches from Auslan sign to AISL fingerspelling in both Auslan and AISL matrix sentences indicates possible difficulties in AISL signfinding. This is supported both by the high frequency of doubling and – even when doubling does not occur – the use of fingerspelling to facilitate code-switching. Where an Auslan sign appears in an AISL matrix sentence, the Auslan sign itself represents a code-switch from AISL, indicating possible difficulties in AISL signfinding. The use of AISL fingerspelling may represent a "bootstrapping" strategy, designed to help the signer return to AISL, through the use of fingerspelling as a system providing a bridge from Auslan. This in turn suggests the following model:

Auslan \rightarrow (English) \rightarrow AISL fingerspelling \rightarrow AISL

Future research will explore implications for understanding the relationship between sign languages and fingerspelling, and the differences and similarities between code switching and language switching.