Unimodal bilingualism in the Deaf community: Language contact
between two sign languages in Australia and the United Kingdom.

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Submitted to University College London,
for the degree of Doctorate of Philosophy.

I, Robert Edward James Adam confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

ABSTRACT

Little is known about unimodal sign bilingualism: whether it resembles unimodal (spoken) bilingualism, or bimodal (spoken and signed) bilingualism, or whether it has unique qualities. This study is the first to examine this topic through a study of bilingualism in two Deaf communities in which dialects of unrelated languages: British Sign Language (BSL) and Irish Sign Language (ISL) are used. The research looks at previously unexplored aspects of code-blending and code-mixing, and compares the data with data on bimodal bilingualism (in a signed and a spoken language) and unimodal bilingualism (in two spoken languages) with a combination of experimental and naturalistic data.

The experimental study used a picture naming task. Eleven participants were asked to name pictures as quickly as possible, and response latencies were analysed. It was found that there was indeed a switching cost, which did not appear to be asymmetrical. There was also a cognate facilitation effect.

The second part of the study was based on interviews with bilinguals. As well as phenomena already described for unimodal spoken language bilingualism, including code-switching and code mixing, the study reports on mouthing, where spoken mouth patterns (in this case English) are produced simultaneously with manual signs. These are usually considered examples of code-blending, reflecting active mixing of two languages.

This study provides an initial understanding of how modality interacts with bilingualism and suggests the need for further explorations.

TABLE OF CONTENTS

DEDICATION

For My Mother,

Julia Ellen Adam

I grew up knowing both Auslan and Australian Irish Sign Language (AISL). My mother, Julia Ellen Brown, was a foundation pupil in 1948 at St Mary's Delgany School for Deaf Children where AISL was her first language. Her elder sister Maureen was first a pupil at the Victorian School for Deaf Children in Melbourne learning Auslan as a first language. She then went on to St Mary's Delgany as a foundation pupil as well, learning AISL as a second sign language.

My father Robert 'Mac' Adam was educated at the Victorian School for Deaf Children from 1947 and Auslan is his first language as well. He learnt AISL as a second sign language when he married my mother, and he would always encourage me to practise my AISL with my mother's school friends when they came to visit. Some of

these very people have shown their generosity by agreeing to be participants in this study.

Subsequently, I grew up with both sign languages in my family. Auslan was the language of the dinner table, but my mother, her hearing mother, my grandmother Anne, and my Deaf aunt Maureen and hearing aunt Margaret would always code-switch between AISL and Auslan. My Deaf sister Rebecca and I were fascinated by this. There were other times when growing up that I thought this was peculiar. With this dissertation I understand this phenomenon much more. I can say that this childhood experience fostered my and my sister's awareness of a minority/majority bilingualism within the Australian Deaf Community – we always knew which sign language to use with whom.

Hence, without my parents and my aunt, this fascination with sign language bilingualism would not have happened, and I would like to acknowledge them all with this dissertation. For the sake of acknowledging older members of the AISL community who were much-loved family friends and who have passed on, I would like to name Olive and Alec Anderson, Patricia and D'Arcy Counsel, Gertrude Hennessey, and Mary Elizabeth 'Betty' Carberry (who never bothered to learn Auslan and sent me a birthday card without fail every year). There were others who I met and who were very important in the Australian Catholic Deaf Community like Marie Fulton, Charlie Wallis, Don Wallis, Caroline Spranklin. I was very sorry to hear of the passing of Kathleen Wallis who died during the writing of this dissertation and was possibly the last person I know of who did not ever learn Auslan in its entirety.

ACKNOWLEDGEMENTS:

CHAPTER 1: INTRODUCTION

1.1 Introduction

There has been extensive work on bilingualism and language contact. Spoken languages in contact have hitherto been of great interest to researchers, who have described the nature of this contact, discussed the implications of this contact, applied this knowledge to education settings, and had aspects of this knowledge used to assert linguistic human rights for Deaf communities around the world, among other things. Research into bilingualism and language contact has also given us a further glimpse into the human experience and this has now reached the point where research into bilingualism has helped us understand of how language works and how the brain processes language.

There has been less of this work in relation to sign languages. After years of oppression, Deaf communities around the world found themselves in the mid to late twentieth century asserting their linguistic human rights. This came after Bernard Tervoort's seminal research, first completed as a doctoral thesis in 1953 (Knoors, 2007), followed by William Stokoe's influential work that positioned sign languages as bona fide languages (Stokoe, 1960). There were projects around the world which undertook research on sign languages based on linguistic principles. This has often resulted in an increased status for Deaf people and their linguistic human rights. It would not have been possible for example, for British Sign Language to have had the recognition it has had, without the seminal work by Brennan (1975), Deuchar (1984a), Kyle and Woll (1985), and Brien (1992). Today sign languages are mentioned in British legislation (Stone, 2008, 2010) and international human rights conventions (Kauppinen & Jokinen, 2013)

In due course, bilingualism replaced pure oralism as the preferred pedagogical means for teaching Deaf children in many schools around the world (Grosjean, 2001) and sign languages emerged from the shadows. This has resulted in much of the work on sign language bilingualism being focussed on the educational aspects of language acquisition, language development and language learning, and how a first language provides a strong basis on which to learn a second language. This means that sign language has become regarded as a first language, from which spoken and written language can be developed (Grosjean, 2010).

Most sign language research has assumed that Deaf people only know one sign language and one ambient written or spoken language. What about Deaf people who live in a country where there is more than one sign language? What about Deaf people who move from one country, using one sign language, to another country, using another sign language? What about Deaf people who live in border areas and can use more than one sign language? There has been very little research on this bilingualism; the first doctoral study on this topic was by David Quinto-Pozos in 2002 when he examined language contact between Mexican Sign Language and American Sign Language in the border areas of Texas, USA. There have been other studies, but compared with spoken language bilingualism and bimodal bilingualism, there has been very little research in this area.

The present study will contribute to sociolinguistics theory by contributing to our understanding of the relationship between bilingualism and modality. What are the experiences of unimodal Deaf sign bilinguals? Do they exhibit the same characteristics as unimodal sign language bilinguals in code-switching? Does unimodal sign bilingual code-switching resemble that of unimodal spoken bilinguals, or even bimodal bilinguals? What happens in situations of language attrition?

The aim of the thesis is two-fold: firstly to explore the nature of unimodal bilingualism, and secondly to understand the role of relative statuses and contexts in sign language attrition and loss. This is the first scholarly paper to examine Australian Irish Sign Language, and it is intended that the history and some aspects of the language will be discussed in the academic literature as a consequence of this research.

This thesis uses different data to investigate unimodal sign language contact. Naturalistic data from the interviews and conversations are used for the sociolinguistics thematic analysis (Chapter 5) and for the code-switching analysis (Chapter 7) and experimental data are used for a psycholinguistic analysis of code-switching (Chapter 6). The chapters are introduced in the next section.

1.2 Structure of this thesis

The literature review in Chapter 2 discusses bilingualism, language contact, the outcomes of bilingualism and language contact (such as code-switching, code-mixing, code-blending, language), outcomes of these that are specific to sign language contact (such as fingerspelling, mouthing) and language attrition and death. Psycholinguistic research on spoken language bilingualism is also examined as well as that on bimodal bilingualism and code-switching.

Chapter 3 reviews the historical aspects of the two sign languages in contact: Australian Sign Language (Auslan) and Australian Irish Sign Language (AISL), as well as the languages from which they originate (and are dialects of respectively): British Sign Language (BSL) and Irish Sign Language (ISL). The history of these languages have strong links with the history of Deaf education in Ireland, the United Kingdom and Australia. The series of events which led to Auslan and AISL arriving in Australia are described along with the establishment of the various schools. Research into Irish Sign Language is also mentioned along with the language situation in Northern Ireland.

The interviews and conversations all have AISL and Auslan bilinguals in Australia, and ISL and BSL bilinguals in Northern Ireland and are discussed in Chapter 4, where the filmed interviews and conversations are introduced. The participants and the data collection techniques are reviewed, including questions used during the semi-structured interviews. Finally the coding strategies and analysis for the sociolinguistics aspects are discussed.

Chapter 5 follows on from Chapter 4 where the conversation and interview data are discussed in some depth. These findings are grouped into different themes: domains of use, family life, friends, religion, the difference between men and women's signing, education, language attitude, learning a sign language, name signs and language attrition. As with ISL research, differences between men's and women's signing is mentioned by the participants but they also remark on the minority status of AISL.

Chapter 6 is the experimental section of this thesis where psycholinguistics research techniques are applied to a group of bilingual Deaf people. The literature on spoken unimodal code-switching and bimodal code-switching is reviewed before introducing the experimental task. The two issues of interest for this study were switching cost and cognate facilitation. In spoken language, asymmetric switchingcosts have been found in an experimental task, with the switching cost into the first language greater than that for switching into the second language (Meuter & Allport, 1999) along with a cognate facilitation effect, where cognate word pairs from the two languages have a quicker response time than non-cognate words (Costa, Caramazza, & Sebastián-Gallés, 2000). The present study was conducted on ISL and BSL bilinguals (rather than AISL and Auslan bilinguals because of their advanced age), in order to gain an insight into the bilingual language processing issues for unimodal sign bilinguals. A switching

cost was found, although not asymmetric, along with a cognate facilitation effect. An error analysis was also carried out as well as a mouthing analysis.

Finally, Chapter 7 looks at the sociolinguistics interview and conversation data to explore the characteristics of unimodal sign language code-switching in a naturalistic setting. Clauses were analysed to see where switches occurred, and use of mouthing in these contact situations. This code-switching was found to have some characteristics that are specific to sign language (e.g. doubling along with the use of fingerspelling. In fingerspelling code-switching, the switch appears as a form from the fingerspelling system of the other language, rather than a sign. Other types of switching are found in both signed and spoken languages.

This dissertation concludes in Chapter 8 where all the different findings are brought together, discussing the different aspects of unimodal sign language contact, including sociolinguistics data and experimental data. Future directions are proposed and the dissertation concludes with the hope that a contribution has been made to the understanding of sociolinguistic theory and language processing. The conclusion is followed by five appendices which will provide the reader with more background information on the data collection and data analysis within this study.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

In Deaf communities, contact can occur between two sign languages or between a sign language and a spoken/written language, and both unimodal (2 sign languages) and cross-modal (sign language/spoken language) bilingualism are found. Contact between spoken and signed languages (Adam, 2012) and consequent cross-modal bilingualism have been relatively well-researched (Emmorey, Borinstein, & Thompson, 2005; Emmorey, Petrich, & Gollan, 2012), with more limited research on contact between sign languages, and almost no research on sign language/sign language bilingualism. As a preliminary to the research studies in this thesis, the focus in this review will be on bilingualism and externally triggered change in sign language as a result of language contact and borrowing.

Using the contrast drawn by Hamers and Blanc (2003) between bilingualism (community-level bilingualism) and bilinguality (an individual's bilingual abilities), it can be said that individuals in Deaf communities exhibit variable degrees of bilinguality in a signed and spoken/written language. Of particular interest in relation to societal cross-modal bilingualism are those communities where there is widespread cross-modal bilingualism among both hearing and deaf people (see Woll and Adam (2012) for a review). Code blending between sign language and spoken language will also be examined in this chapter, as well as borrowings into sign language, especially borrowings arising from language contact (which can include fingerspelling, mouthing and the gestures of the hearing community).

Finally there will be a focus on language shift, including an exploration of language attrition both in terms of the individual and the community. It has been noted

for example, that as minority language speakers become more fluent in the majority language, their first language loses linguistic features which are not replaced; when transmission to children is interrupted, the second generation become semi-speakers (Dorian, 1982).

2.1 Language contact and the bilingual situation of sign languages

Language communities are characterised by contact with other languages. Contact between languages results in phonological, lexical and grammatical influences on languages. In some situations, this results in the creation of pidgins and creoles. Language contact can also result in bilingualism, where people use more than one language in their every day lives. It is extremely rare for any language to exist in isolation from other languages, and there are numerous examples of language contact leading to bilingualism (Grosjean, 1982). As Sankoff (2001) notes, languages used by bilinguals may undergo changes that are different from those that are found in monolingual communities, as additional factors may drive change.

Language contact occurs when two languages are used in the same place at the same time and results in a range of linguistic phenomena, including borrowings and loans, interference, convergence, transference, bilingualism, code-switching, foreigner talk, language shift, language attrition, language decline and language death (Sarah Thomason, 2001). Sign language contact is no different, and the body of work reflects this, with research encompassing language contact between spoken languages and signed languages, as well as language contact between sign languages in a great variety of contexts around the world.

Cross-modal societal bilingualism has been reported in many Deaf communities. Different types of language contact and social structure in communities such as those for example, of Martha's Vineyard, Bali, and the Yucatan, are described and contrasted

by Woll and Ladd (2003). In most of these communities there has been a high incidence of genetic deafness and a high proportion of hearing community members are fluent in both spoken language and sign language.

Lucas and Valli (1989, 1991, 1992) report that the major outcomes of language contact between two spoken languages, such as lexical influence from one language on the other, foreigner talk, interference (Weinreich, 1968) and the creation of pidgins, creoles and mixed systems, are also found in signed-spoken language contact.

2.1.2 Translanguaging

In the classical view of bilingualism, , languages are treated as autonomous codes with their own structures. Bilingualism and multilingualism are additive, with a focus on language users' ability to distinguish and separate languages as a marker of language proficiency and competence, and consequently the perception of interaction between languages in contact as 'linguistic interference'. The term 'code switching' itself suggests a strong separation between languages in contact. Cummins (1979), in contrast, discusses interdependence between two languages, and more recently, Li and Garcia (2014) discuss how concepts of bilingualism, multilingualism and plurilingualism do not encompass a full understanding of what they call 'languaging'. In their view, bilingualism is seen as a dynamic phenomenon as opposed to an additive one. Language practices are 'complex and interrelated; they do not emerge in a linear way or function separately since there is only one linguistic system' (Garcia & Li, 2014, p. 14). The following figure demonstrates the progression of bilingualism/multilingualism theory over time to a more dynamic bilingualism/translanguaging perspective.

Traditional bilingualism:
Two autonomous linguistic systems

L_1
$F_1, F_1, F_1, F_1, F_1, F_1,$

L_2
$F_1, F_1, F_1, F_1, F_1, F_1,$

Linguistic interdependence:
Jim Cummins

L_1
$F_1, F_1, F_1, F_1, F_1, F_1,$

L_2
$F_1, F_1, F_1, F_1, F_1, F_1,$

Common Underlying Proficiency

Dynamic bilingualism:
Translanguaging

$F_nF_nF_nF_nF_nF_nF_nF_nF_nF_nF_nF_nF_nF_nF_nF_nF_nF_nF_n$

*L = Linguistic system
F = Linguistic feature

Figure 2.1 From traditional to dynamic bilingualism.

(Garcia & Li, 2014, p. 14)

The term 'translanguaging', originally from the Welsh 'trawsieithu' indicated a pedagogic practice where languages are alternated for receptive or productive use. Garcia (2009, p. 44) describes translanguaging as

"an approach to bilingualism that is centered not on languages as has been often the case, but on the practices of bilinguals that are readily observable. These worldwide translanguaging practices are seen here as not marked or unusual, but rather taken for what they are, namely the normal mode of communication that, with some exceptions in some monolingual enclaves, characterizes communities through the world"

and sees translanguaging as comprising "multiple discursive practices in which bilinguals engage in order to make sense of their bilingual worlds" (Garcia, 2009, p. 45). In this view, bilinguals have a single (albeit richer) linguistic repertoire with which

to communicate effectively, with some events and topics that are more relevant to certain parts of a bilingual repertoire than others.

Li (2011, p. 1223) discusses how translanguaging:

> "creates a social space for the multilingual user by bringing together different dimensions of their personal history, experience and environment, their attitude, belief and ideology, their cognitive and physical capacity into one coordinated and meaningful space".

The concept of translanguaging adds a different dimension to the concept of language contact between two sign languages. To date there has been no examination of any sign language community from this perspective, whether in terms of cross-modal bilingualism, or of bilingualism in two sign languages, although there has been some discussion of this in terms of how translanguaging can take place in a bimodal, bilingual classroom with deaf children (Swanwick, 2014, 2015).

2.2 Spoken language-sign language contact

Sign language researchers in the 1960s, 1970s and 1980s, noting how people's signing changed in different contexts, drew on the existing sociolinguistic literature on spoken languages to explain these phenomena. Having noticed that there influences from English could be found in American Sign Language to varying degrees, Stokoe (1969) proposed that this might be characterised as a form of diglossia. In diglossia there are 'high' and 'low' varieties of a single language, used in different settings (Ferguson, 1959), for example High German and Swiss German. Although Woodward (1973b) uses the term "Pidgin Signed English" to refer to the outcome of language contact between American Sign Language and English, along with Stokoe (1969:27) he also

suggests the use of the term diglossia to refer to the relationship between English and ASL. Deuchar (1984b) refers to Woodward's (1973) 'deaf diglossic continuum' between American Sign Language and English, in her exploration of diglossia between British Sign Language and English, but contends that this is an oversimplification, and that what is really occurring is contact between two different languages.

Tervoort (1973) argued against Woodward and Stokoe, stating that for diglossia to be present, the High and Low forms had to be varieties of the same language. Since ASL and English were two different languages, it would be more appropriate to describe the Deaf community as a bilingual community. Therefore if diglossia existed, it was not between ASL and English, but between ASL and contact forms of signing called pidgin signed English (see the next section). This form of signing was later called manually coded English (MCE). Historically, MCE has been the outcome of language planning efforts which aimed to create a manual form of English for use in educational settings (Kuntze, 2016).

As well as ASL and English being different languages, the modality differences between signed and spoken languages also render the diglossia model problematic in this contact situation. Cokely (1983) moves on from the diglossia model and refers to how interaction between fluent Deaf signers and hearing learners of sign language results in 'foreigner talk'. Lucas & Valli (1992) proposed the term 'contact signing' for communication showing influences of both sign language and spoken language. The prevailing view nowadays is that the Deaf community is a bilingual community where individual Deaf people have varying degrees of fluency in the signed language and the spoken language (Schembri & Lucas, 2015).

2.2.1 Pidgins

A pidgin is an auxiliary language that has come into existence through the attempts by the users of two different languages to communicate and that is primarily a simplified form of one of the languages, with a reduced vocabulary and grammatical structure. A creole is formed when a pidgin is nativised, that is, acquired by children as a first language. (Hall, 1966). Fischer (1978), Supalla and Webb (1995), and Johnston and Schembri (2007) have all described sign language-spoken language pidgins. Fischer (1978) has pointed out the linguistic and socioeconomic similarities between pidgin forms of ASL and English and between pidgin and creoles in spoken languages. Because pidgins are the result of language contact and creoles are learnt as a first language, the age of acquisition and the context of language use can influence whether a Deaf person uses a pidgin form of sign language or a full sign language (Mayberry, Fischer, & Hatfield, 1983). For example, if a child learns sign language in an environment where there is a great deal of contact between a spoken and a signed language, it may well be that this child will use a pidgin form of sign language, where features from both the two languages are present in the child's language – as distinct from a full sign language learnt from Deaf parents for example, which displays the usual characteristics of sign language. This represents a rather different definition of 'pidgin'. This use of the term pidgin and the differences between the contexts in which spoken language pidgins arise, and those described for sign language-spoken language contact have led to general abandonment of the term pidgin in this context. For example, the people who mix signed and spoken languages regularly (T. Johnston & Schembri, 2007) tend to be fluent users of both a signed and spoken language, rather than individuals seeking to communicate across language boundaries. Woodward (1996; 1973b) proposed the concept of a pidgin signed English which included

grammatical structures which were reduced and mixed from ASL and English, along with new structures which did not originate from either ASL or English.

However, mixing of a sign language and a spoken language is now generally called contact signing (Lucas & Valli, 1992), with the terms Pidgin Signed English and Manually Coded English (Bornstein, 1990; Schick, 2003) used to refer to manual representations of spoken English, where additional signs have been created to represent e.g. English grammatical function words.

2.2.2 Code-switching, code-mixing and code-blending

2.2.2.1 Code-switching

Of all the possible forms of interference occurring between two languages, code-switching is the most studied (Sarah Thomason, 2001). Code-switching occurs when a speaker/signer alternates between two or more languages, or language varieties (including alternation in vocabulary and grammar), in the context of a single conversation. With respect to contact between sign language and spoken language, code-switching is seen as context- and content-dependent (Ann, 2001; Kuntze, 2000; Lucas & Valli, 1992). A distinction is drawn between code-switching - categorised as intersentential (switching at a sentence boundary) – and code-mixing - characterised as occurring intrasententially. However, Ann (2001) points out that for this definition to apply to code-switching or code-mixing in sign language-spoken language contact, a person would have to stop signing and start speaking or vice versa.

Muysken's (2000) typology categorizes both code-switching and code-mixing as a single phenomenon making use of three different processes: insertion - where a lexical item or a phrase is inserted into a sentence; alternation - where codes are switched at utterance boundaries; and congruent lexicalisation - where the two languages share

similar grammatical structures and language nodes are shared between the two codes, but at the lexical level there are items from the different languages.

2.2.2.2 Code-mixing

In contrast to Muysken, most researchers use the term code-mixing to refer to language contact phenomena (Grosjean, 1982; Romaine, 1995) where switches occur within the sentence itself, in contrast to code-switching, which is defined as occurring at sentence boundaries. Myers-Scotton (1993) proposed the matrix language-frame model to explain the patterns of switching found between two languages. In this model, the more dominant language within an interaction, and the one providing most of the linguistic material, is described as the matrix language (ML), with the other language called the embedded language (EL).

These definitions of code mixing and code switching presuppose that the two languages are in the same modality, where elements from both languages cannot be produced at the same time. For cross-modal bilinguals, this analysis is inadequate since it is indeed possible to produce elements from both a sign language and a spoken language simultaneously. The term code-blending is used to refer to this phenomenon.

2.2.2.3 Code blending

Romaine (1995:4) describes how "in intense language contact it is possible for a third language system to emerge which shows properties not found in either of the input language. Thus through the merger or convergence of two systems, a new one can be created". Lucas and Valli (1992:108) discuss the existence of a 'third system':

  "Phonological, morphological, syntactical, lexical and pragmatic features are often

  produced simultaneously; assigning stretches of discourse to ASL or to English

  seems like a fruitless exercise and also misses the point. The point is a third system

which combines elements of both languages and may also have some idiosyncratic data*.”*

Because the articulators for spoken languages and sign languages are different, it is possible to use both types of articulators at the same time. The code-blending which exists in signed-spoken language contact is possible specifically because of the difference in modalities.

Emmorey et al. (2005) discuss the presence of code-blending in bimodal bilingual interactions, found in contact between spoken language dominant and sign language dominant signers, and also between native signers who are also fluent in a spoken language. Full switches between languages in ASL-English bilinguals are exceptional because the different modalities allow for the simultaneous production of elements of both languages (Emmorey, 2008). In a study designed to elicit language mixing from hearing native signers, they found that predominant form of mixing was code-blending (English words and ASL signs produced at the same time).

There is a difference between code-blends by hearing bilinguals and code-blends by Deaf people. Emmorey et al. (2008) studied hearing bilinguals and found that where ASL was the matrix language, no single-word code blends were produced. This seems to contradict Lucas and Valli (1992) who discuss the bilingualism in the Deaf community and argue that this is a third system.

Van den Bogaerde and colleagues have studied code-blending in the interaction of deaf parents with their hearing and deaf children (Van den Bogaerde, 2000; Baker & van den Bogaerde, 2008) They found that code-blending between Dutch Sign Language, or 'Nederlandse Gebarentaal' (NGT) and spoken Dutch varies, with different relationships between the two languages:

Example 1 Dutch as Matrix language

Signed			VALLEN
Spoken	Die	Gaat	Vallen
English	That	Goes	Fall

Translation: That [doll] is going to fall

Example 2 NGT as Matrix Language

Signed		JAS	BLAUW
Spoken			blauw
English	INDEX$_{he}$	COAT	BLUE

Translation: He has a blue coat

Example 3 Mixed – no Matrix language.

Some information is provided in one language and some in the other at the same time

Signed	POP	SPELEN
Spoken	Geel	
English	DOLL	PLAY

Translation: (I want) to play with the yellow doll

Example 4 Full – no Matrix language

All information is provided in both languages simultaneously

Signed	BOEK	PAKKEN
Spoken	Boek	Pakken
English	Book	Fetch

Translation: [I will fetch the book]

(all examples Baker & van den Bogaerde, 2008:7)

Code-blends were found both in mothers' input to their children and in the children's output. NGT predominated as the matrix language when Deaf mothers communicated with their deaf children, while spoken Dutch was more often the matrix language used with hearing children. The hearing children used all four types of code blending whereas the Deaf children tended to use NGT as the matrix language (van den Bogaerde & Baker, 2005b). They also report that code-blending took place more often with nouns than with verbs. This contrasts with the study of adult interaction by Emmorey et al. (2008), who found that verbs were code-blended more often than nouns followed by adjectives and then adverbs. This is interesting in itself because mouthing is reported to be found more with nouns than with verbs in BSL (Sutton-Spence, 2007), and the Dutch study reflects this, as well as subsequent research by Johnston, van Roekel and Schembri (2016). One possible reason for this difference is that Emmorey et. al. are not studying Deaf people, but a group of hearing people who are bilingual in both sign language and spoken language.

Bishop and Hicks (2008) investigated bimodal bilingualism (ASL/English) among adult hearing native signers, finding that their English often showed features that are characteristic of sign languages but are not normally found in English, and that they used features of both ASL and English in their interaction with each other, demonstrating their fluent bilingualism and shared cultural and linguistic background.

Emmorey et al. (2008) found that bimodal bilinguals produced more code-blends than code-switches, and that this information contained semantically equivalent information in the two languages. They argue – contrary to psycholinguistic models of language production (Green, 1986) – that this demonstrates that the language production system is not required to output a single lexical representation at the word level. Although simultaneous output is possible, with independent articulators (hands

for ASL and mouth for English), two different messages are not produced – in line with Levelt's (1989) constraints which prevent the production or interpretation of two concurrent propositions.

Many linguistic and social factors can trigger code-blending, just as for code-switching in unimodal bilinguals. Emmorey and colleagues conclude that for bimodal bilinguals, code-blending likely serves the same social and discourse functions that code-switching serves for unimodal bilinguals.

Triggers previously identified for code-switching include discourse and social functions (identity, linguistic proficiency, signalling topic changes and creating emphasis (Romaine, 1995)). Emmorey et al. (2008)found that ASL verbs were more often produced by hearing bilinguals in a single-sign code-blend or code-switch than nouns. For example it is possible to produce English tense inflections at the same time as signing ASL verbs (which do not inflect for tense) at the same time, for example, mouthing *went* when signing GO. Cross-modal code-switching also occurs, for example, when eating impedes speech or when in a noisy environment.

2.2.3 Borrowing from spoken language to sign language

Two social preconditions for borrowing between languages are extended social contact and a degree of bilinguality in speakers (Sarah Thomason & Kaufman, 1988). Battison (1978) discusses lexical borrowing into American Sign Language from English. In this form of borrowing, fingerspelled words (manual representations of orthography) are restructured or borrowed, in a way comparable to that found in borrowing between spoken languages. McKee et al. (2007) describe how 'semantic importation' of spoken lexical items into signed languages has particular characteristics arising from the differences in modality between signed and spoken languages: borrowing generally occurs through mechanisms such as fingerspelling, mouthing (unvoiced articulation of a

spoken word with or without a manual sign), initialised sign formations, and loan

translation. Forms that combine structural elements from two languages may be

described as hybrids: in New Zealand English, 'Māoridom' is an example, while

initialized signs (the replacement of a sign's handshape with a handshape related to a

word with the same meaning (e.g. FAMILY signed with an –F- handshape) and the co-

articulation of a manual sign with mouthing to specify meaning are forms of hybrid

loans commonly found in sign languages including New Zealand Sign Language

(NZSL) (McKee et al., 2007).

In language contact settings, bilingual individuals are instrumental in

introducing new usages and coinages from a second language to the community, which

are then transmitted to monolingual speakers who would not otherwise have access to

them. An important factor in Te Reo Māori-NZSL contact is the emergence of bilingual

individuals and of domains where the two languages are in use by both Deaf and

hearing individuals. Sign language interpreters with a Māori background, and other

hearing Māori with NZSL skills have in some instances been key agents of motivating,

coining and disseminating contact forms (McKee et al., 2007).

Often parallel forms can be found, one of which is a loan sign and the other

which is a native sign. For example, the ASL loan translation compound sign

BREAK+DOWN exists alongside the native sign BREAKDOWN. Brentari and Padden

(2001) discuss similar examples in ASL such as DEAD+LINE and BABY+SIT. Some

compounds contain fingerspelled components such as SUGAR + F-R-E-E. In all of

these ASL examples, there has been influence from the majority spoken language.

2.2.4 Fingerspelling

Fingerspelling is the use of a set of manual symbols to represent orthography

(Sutton-Spence, 1998b). There are a number of manual alphabets in use around the

world, some of which are two-handed and others which are one-handed (Carmel, 1982). The fingerspelling systems used in ISL and BSL are different. ISL fingerspelling is a one-handed system, while BSL fingerspelling is a two-handed system, as can be seen in Figures 2.2 and 2.3 respectively:

Figure 2.2 Irish Sign Language fingerspelling chart[1]

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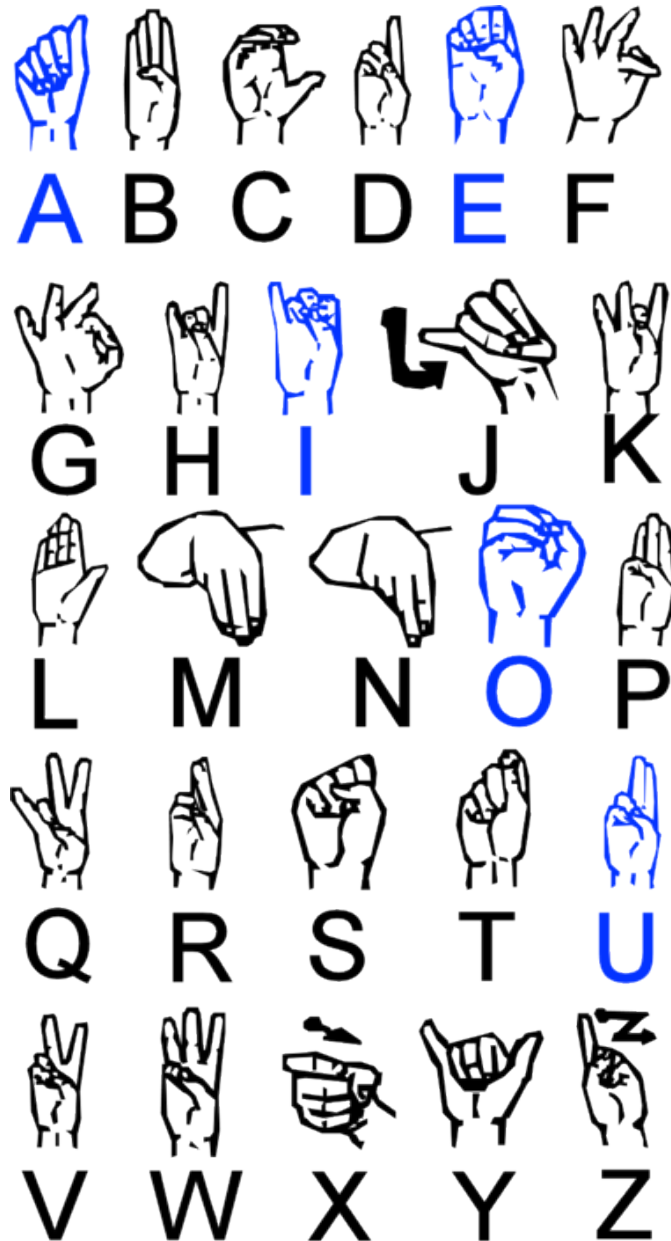
[1] https://deafsocietynsw.org.au/aged_care/page/the_one_handed_alphabet, retrieved 1 December 2016

Figure 2.3 British Sign Language fingerspelling chart[2]
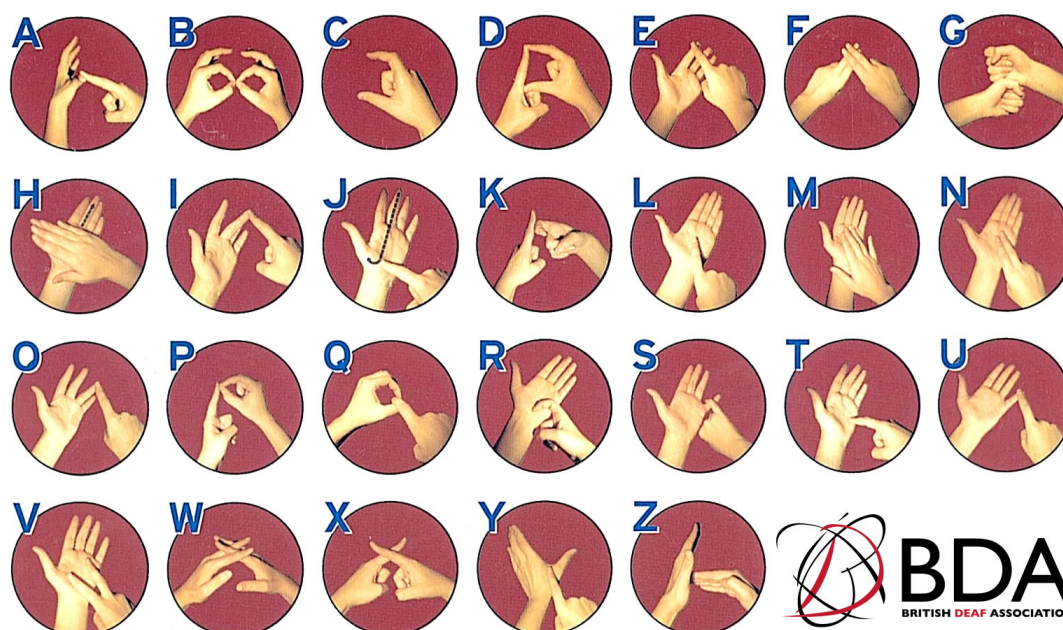
BSL Fingerspelling Alphabet

Fingerspelling is treated differently by different researchers; some see it as being a part of the signed language, albeit with specialised function and status, while others see it as a foreign element outside the native lexicon. Padden and LeMaster (1985), Akamatsu (1985) and Blumenthal-Kelly (1995) have all found that children recognize fingerspelled words in context long before the acquisition of fingerspelling, suggesting that fingerspelling does not necessarily represent orthography directly. Davis (1989:97) has argued that fingerspelling is not English, but rather is an ASL phonological event.

The use of fingerspelling has been regarded by some researchers as evidence of code-switching. Quinto-Pozos (2007) considers fingerspelling as one of the points of contact between a signed and a spoken language, with fingerspelling available as a way of code-mixing. Deuchar (1984) viewed increased use of fingerspelling as associated with formal registers of signing.

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[2] http://old-bda.org.uk/uploads/BDA/files/BDA_BSL_Fingerspelling.jpg, retrieved 1 December 2016

Other researchers have explored the use of fingerspelling as a source of lexical borrowing from written language to sign language. Battison (1978)'s study of loan forms from fingerspelling was based on the premise that fingerspelled forms were English. Through a process of nativisation of fingerspelling (Cormier, Tyrone, & Schembri, 2008; Kyle & Woll, 1985; Sutton-Spence, 1994), a fingerspelled event can become a sign. This occurs when (1) fingerspelled forms adhere to phonological constraints of the native lexicon, (2) the forms occur in the native lexicon, (3) native elements are added, (4) non-native elements are reduced (e.g., letters lost), and (5) native elements are integrated with non-native elements (Cormier, et al. 2008:3).

Because of the modality differences between signed language and spoken language, spoken languages cannot lend morphemes directly, but only through calques (loan-translations) discussed in the previous section or through fingerspelling. However, since the lexical structure of fingerspelling does not match that of sign language, borrowings are restructured (Lucas and Valli, 1992:41) to fit the phonology of the sign language.

Sutton-Spence (1994) considers various types of fingerspelled loan signs from English. Lexical items can also be created, according to Brentari and Padden (2001:109), and Sutton-Spence (1994) through the compounding of fingerspelling and signs. The articulatory characteristics of the fingerspelt word, the phonological and orthographic characteristics of the spoken and written word and the phonological characteristics of the sign language all influence how words are borrowed and in what form.

Grammatical class affects the frequency of use of fingerspelled forms and consequently the possibility of fingerspelled forms becoming loan signs in BSL: in a corpus of 19,450 fingerspelled items, Sutton-Spence (1998) found that very few were

verbs and most were nouns. There are various reasons for this but it is known that class size has an influence on borrowing frequency: nouns make up 60% and verbs make up 14% of the vocabulary. Sutton-Spence also suggests that since fingerspelled loan verbs would have to move through space to add appropriate BSL inflections while at the same time articulating a string of different handshapes, this would violate phonotactic rules of BSL. (Sutton-Spence, 1998b).

Brennan et al. (1984) report on the borrowing into BSL of loan signs using the Irish manual alphabet by Scottish Catholic signers in the west of Scotland. Johnston and Schembri (2007) refer to signs in Australian Sign Language (Auslan) which exhibit initialisation from the Irish manual alphabet, although this no longer appears to be a productive process. Machabée (1995) noted the presence of two types of initialised signs which use the first letter of the spoken language word in Langue des Signes Québécoise (LSQ). She categorized these into two groups: those realised in fingerspelling space or neutral space, accompanied by no movement or only a hand-internal movement; and those which are created on the base of another existing but non-initialised sign, through a morphological process. The manual alphabet used in LSQ is a one-handed alphabet; this has different affordances for loan sign creation than BSL and Auslan, which use a 2-handed alphabet. In BSL, Sutton-Spence (1994) discusses single manual letter signs (SMLS) as not being examples of initialisation, but rather direct borrowing, where a movement is added to a letter.

For languages such as Chinese, where the writing system is non-orthographic, signers can code-mix by drawing a character in space or on the non-dominant palm (Ann, 2001). Characters can also serve as the source of loan signs.

Parallels to character signs may be seen in the 'aerial fingerspelling' used by some signers in New Zealand. With aerial fingerspelling, signers trace written letters in

the air with their index finger. This is used only by older people and was not found in

the corpus which formed the basis of the NZ Sign Language Dictionary (Dugdale,

Kennedy, McKee, & McKee, 2003)

2.2.5 Mouthing

Mouthing of spoken language words to accompany signs (distinguished from mouth

gestures (Boyes-Braem & Sutton-Spence, 2001) plays a significant role in contact

signing (Lucas & Valli, 1989; Schermer, 1990). There is however debate about the role

of mouthing in sign languages: whether it is a part of sign language or whether it is

incidental to sign language (Boyes-Braem & Sutton-Spence, 2001).

Schermer (1990) investigated features of the relationship between Sign

Language of the Netherlands (NGT) and spoken Dutch. She found that the mouthing of

words (what she called 'spoken components') had two roles: to disambiguate minimal

pairs and to specify the meaning of a sign. She found differences between signers in the

extent of the influence of spoken language: for example, the age of acquisition of a sign

language influenced the amount of mouthing used by a signer.

Schermer described three types of spoken components: 1) complete Dutch

lexical items unaccompanied by a manual sign (with no linguistic function in NGT); 2)

reduced Dutch lexical items that could hardly be identified as such without the

accompanying manual sign; and 3) complete Dutch lexical items accompanying a sign,

which served to disambiguate and specify the meaning of signs. She also described a

fourth group of complete Dutch lexical items accompanying signs, which were both

semantically and syntactically redundant. Sutton-Spence and Woll (1999) and Johnston

and Schembri (2007) also refer to mouthing as a means of disambiguating SMLS.

Schembri et al. (2002) found that noun signs were accompanied by mouthings more

frequently than verb signs. Hohenberger and Happ (2001) refer to two categories: full

mouthings, where strings of signs are accompanied by strings of mouthings; and restricted mouthings, where mouth gestures dominate and only some signs are accompanied by mouthings. Bergman and Wallin (2001) described mouthings as a highly structured and essential component of sign languages – without them, signs were incomplete.

2.2.6 Borrowing from the gestures of hearing communities

Gestures are used by all hearing people to accompany spoken language. Researchers have found a connection between signs and the gestures of hearing people who live in the same area. In a study of Deaf and hearing participants from six European countries (England, Holland, Denmark, Switzerland, Portugal, Spain), Boyes Braem, Pizzuto and Volterra (2002) investigated whether the meanings of Italian gestures and Italian Sign Language (LIS) signs could be recognised by hearing Italians or signers from other countries. They also explored whether there were any general strategies used by all participants for attributing meaning to symbolic gestures (ibid 2002:197).

It was found that some gestures were universally understood and others only understood within specific cultures. Some LIS signs were comprehensible across languages and cultures, and by a large majority of non-Italian participants, both Deaf and hearing. They concluded that there are some "language- and culture- free, presumably universal iconic-transparent features of signs that may be perceived in the same manner by both speakers and signers". The Deaf participants from all countries were better at comprehending iconic and non-iconic signs than all hearing participants. Additionally, non-Italian hearing participants' performance was lower than Italian hearing participants for signs which were "hypothesized to be rooted in the Italian culture." (Pizzuto and Volterra, 2000:283).

Boyes Braem et al. (2002) discusses how more than the knowledge of the formal rules of the linguistic or communicative system is needed to be able to understand a communicative signal. Such strategies are used from early infancy and are "shaped by culture, linguistic experiences as speaker or signer, or experience with other gestural systems." (2002:215). Antzakas (2006) reports that the negative headtilt that is used by hearing Greeks and Jordanians (Antzakas & Woll, 2002) is also present in Greek Sign Language. Emmorey et al. (2003) found that categorical perception of facial expressions and gestures in Deaf people were not solely due to linguistic experience; hearing non-signers were able to discriminate between different facial expressions and gestures. The shift from gestural to linguistic can be seen in their finding that only Deaf signers were able to demonstrate categorical perception of hand configurations, indicating that this is the outcome of linguistic experience.

2.3 Contact between two sign languages

Ann (2001) notes that most research has focussed on contact between a spoken and a signed language, but borrowing between a signed language and a spoken language differs from borrowing from one sign language to another. The most detailed study of two specific sign languages in contact to date has been done by Quinto-Pozos (2002, 2007, 2008) who studied the contact between American Sign Language (ASL) and Mexican Sign Language (LSM) in two border areas in Texas, USA, using interviews and group discussions. He found examples of code-switching, interference and borrowings, and also found similarities between the two sign languages in sign production, gestural elements and points.

Meir and Sandler (2008:53) note that signs in Israeli Sign Language can be borrowed from other sign languages, brought by immigrants. Valli and Lucas (2000) observe that contact between two sign languages not only results in lexical borrowing,

but also code-switching, foreigner talk, interference as well as pidgins, creoles and mixed systems.

Contact between two sign languages results in phenomena similar to those that occur when two spoken languages come into contact. (Lucas & Valli, 1989, 1991, 1992; Quinto-Pozos, 2008). Code-switching between two sign languages takes place within the same modality, so a detailed description of each of the sign languages is necessary, to take into account their individual phonetic, phonological, morphological and syntactic structures and the extent to which these differ between the two languages. Additional factors reported include language choice, language preference and language attitude (Hua, (2007).

Thomason and Kaufman (1988:37) define 'borrowing' as "the incorporation of foreign features into a group's native language by speakers of that language: the native language is maintained but is changed by the addition of the incorporated features". Lexical borrowing generally occurs when speakers in contact with a more dominant language perceive a gap or a need for reference to new or foreign concepts in their first language; the outcome is to expand the lexicon, or to create substitutes for existing words. Borrowing in sign languages can occur in three ways. The first two of these reflect borrowings from spoken/written language: through the addition of mouthing to an existing sign, or through the creation of fingerspelled loan signs. The third source is borrowing from another sign language.

2.4 Language attrition, endangered languages, and language death

In the context of contact, all languages may undergo attrition and death where another language takes over all communication functions within a community. Language attrition has been discussed in the context of migration, colonialism, social and political pressures (Schmid, 2002).

Four components have been suggested as being characteristic of languages under threat (Crawford, 1995). The first obvious indication is that the number of users of the language is declining. Secondly, in endangered languages, fluency in the language is associated with increase in age, as younger generations prefer to use another (usually the language dominant in society generally). Thirdly, usage declines in domains where the language was formerly secure – for example, in churches, schools, and the home. Finally, parents fail to use the language with their children. Attrition and language death can only occur in the context of the presence, development and regular use of a second language. Brenzinger and Dimmendaal (1992) note that language death is always preceded by language shift, when a language community stops using one language and shifts to using another language, although language shift does not always result in language death. Research into language attrition can also be based on the analysis of data from experimental studies or natural data (Schmid & Jarvis, 2014)

Many sign languages are endangered, given the status of sign languages around the world, and the history of oppression of Deaf communities. Language death has two aspects:

(1) the environment, consisting of political, historical, economic and linguistic realities;

(2) the community, with its patterns of language use, attitudes and strategies.

Brenzinger and Dimmendaal (1992) observe that while some authors deal with socioeconomic factors but do not describe actual linguistic events, others investigate structural phenomena without considering the sociolinguistics of the situation. Every case of language death is embedded in a bilingual situation, which involves at least two languages, one of which is dying and one which continues. As with many spoken languages, the language of education in sign language communities is usually the

majority spoken language. However, pressures resulting in endangerment and death do not only arise for sign language communities from the dominance of a spoken language. In some countries sign language communities have lost their sign language and replaced it with another one - for example, through the use of ASL in some African and Asian countries (Schmaling, 2001).

There is a limited literature on sign language attrition. Yoel (2007) found characteristics of attrition in a study of Russian Sign Language users who moved to Israel. Signer errors (including miscues and phonological errors) were seen as a result of language interference between Russian Sign Language and Israeli Sign Language. In another study, of Maritime Sign Language in Canada (historically related to BSL, Yoel (2009) found that as a result of language contact with ASL, Maritime Sign Language was moribund.

2.5 Psycholinguistic Studies of Bilingualism

A feature of bilingualism is the ability to separate two languages during language production. Proficient bilinguals may carry traces of their first language in their second language, but rarely exhibit first language lexical intrusions (Costa & Santesteban, 2004). A substantial literature has sought to explain the mechanisms which control lexical access in bilingual speech production.

Children master the ability to control attention, inhibit distraction, monitor sets of stimuli, expand working memory and shift between tasks as a part of the development of executive function. Bialystok and Craik (2010) contend that this is the most important milestone in cognitive development and have examined the cognitive and linguistic processes in the developing bilingual mind, demonstrating that bilingualism has an effect on these processes, and that they in turn have an influence on bilingual language production and inhibition.

There has been debate as to whether there are one or two language processing systems in bilingual individuals, and if there are two, how one is activated while the other is deactivated. Kroll (1993), Fabbro (1999), Clyne (2003), and Dijkstra and van Hell (2003) propose different theoretical models. Green (1998) defines normal and pathological behaviour in bilinguals and takes into account the control, activation and resources available, and that the activation level required for comprehension is lower than that for production. DeBot (2000) adapted for bilinguals Levelt's Speech Production Model (Levelt, 1989) which emphasises the planning process in language use. Grosjean (1982) proposed a continuum of language modes, and Myers-Scotton (1993) uses this model to propose the Matrix Language Frame model which is concerned with the two languages involved with codeswitching and how one is the dominant matrix language (ML), and the other is the non-matrix language, or the embedded language (EL).

Jackson et al. (2001) contend that in order to switch into the L2, the L1 needs to be suppressed, a process which is reliant on the brain's frontal regions. They found that as the L1 is stronger than the L2, the inhibition of the L1 may be stronger when switching from the L2. Green's inhibitory control model (Green, 1998) indicates that in a bilingual lexical items from both languages are available, with the vocabulary from the unintended language inhibited, but (Meuter & Allport, 1999) consider that activation and inhibition are both more complex than currently understood. Christoffels et al. (2007) found that in a mixed language situation, inhibition is not complete, but the L1 activation is reduced in order to facilitate L2 production. Thus a mixed language situation influences L1 production, but not L2 production.

In a picture naming study comparing language switching performance of L2 learners and highly proficient individuals, Costa and Santesteban (2004) found that L2

learners had a asymmetric switching cost: switching to L1 was harder than switching to L2, suggesting that there is an inhibitory mechanism at work;, and that proficient bilinguals were faster at naming pictures in their L2 than in their L1, supporting the finding of Meuter and Allport (1999) that there was a 'reactive inhibitory control' which controlled switching. They reported that the language switching cost was larger in switching from the L2 to the stronger L1 (Meuter & Allport, 1999) and that this pattern was consistent. However, Costa et al. (2000) found a cognate facilitation effect in a picture naming task, where response time for naming cognates was shorter than for non-cognates, and this facilitation effect was also found by Christoffels et al. (2007). The cognate facilitation effect is because of the simultaneous selection of the target lexical item in both the response language, and the non response language, and cognate items allow a shorter response time. Kleinman and Gollan (2016) however found that the design of the experimental task may influence findings: as "all language-switching studies have actually forced bilinguals to switch top-down by telling them which language to use on each trial, and bilinguals may adopt inefficient strategies even in studies with voluntary switching, mixing bottom-up and top-down switches" (Kleinman & Gollan, 2016, p. 1). By 'top-down' switches they mean switches that are accessibility-independent switches (as distinct from bottom-up switches which are accessibility dependent switches, where the name of the concept is more accessible in one of the other language).

Hence, only some switches (particularly those in an experiment) might have a cost, and the switching cost happens during lexical selection, despite the effortlessness with which bilinguals alternate between languages in conversation, selecting words as easily as if from a single language.

In relation to the code-blends used by hearing native signers proficient in both a sign language and a spoken language, Emmorey et al. (2008) suggest that code-blends occur because neither of the language pair is inhibited.

In unimodal sign bilingualism, switch effects might be similar to those found in unimodal spoken language bilingualism, with a facilitation effect between sign cognates, and there might be evidence of directionality in switching between L1 and L2. However, there has been no published work to date which addresses these questions.

2.6 Conclusions

The impact on a sign language of contact with another language needs to be addressed in terms of modality: cross-modal contact involving contact between a signed language and a spoken language, and unimodal contact between two sign languages. There is a larger body of research into the first type of contact, with new understandings beginning to emerge. From the earlier explorations of diglossia and pidginisation, researchers are moving towards looking at bimodal language contact and considering code-blending as well as other features of language contact such as borrowing and the roles of fingerspelling and loan translations and influences on syntax of the borrowing language. With respect to contact between two signed languages, research is needed to see if it is analogous to contact between two spoken languages, with such features as code-switching, borrowing, language transfer and interference. This new area of research will contribute both to sociolinguistic theory and language processing research, in that findings pertinent to sign languages will add to what is already known about language in general. This dissertation will thus focus on questions relating to unimodal bilingualism. The next chapter will focus on the histories of the two sign languages in contact: British Sign Language (and subsequently Australian Sign Language), and Irish Sign Language (and subsequently Australian Irish Sign Language).

The next chapter discusses the histories of the dialects of the two sign languages in contact: Irish Sign Language and Australian Irish Sign Language, and British Sign Language and Australian Sign Language, as well as summarising relevant current research on each of these languages.

CHAPTER 3: THE SIGN LANGUAGES IN CONTACT

3.0 Introduction: The Sign Languages in Contact

The history of both Australian Sign Language (Auslan in the research literature) and Australian Irish Sign Language (AISL) will be examined, especially within the context of the establishment of schools for Deaf children in the UK and Ireland. This will be followed by a brief chronology of how both languages arrived in Australia. As the history of AISL is not as well documented as the history of Auslan, section 3.2 will also include a summary of the establishment of all the Catholic schools in Australia, along with a short description of when the use of AISL was discontinued at these schools. The history of ISL (Irish Sign Language) will be briefly reviewed, by an overview of linguistic and sociolinguistic research on ISL which may be applicable to AISL (section 3.4).

The history of AISL has been relatively little-researched. It receives a mention in the second edition of the Auslan dictionary where Johnston (1998) asserts that there have been two manual alphabets in Australia, a one-handed Catholic alphabet and a two-handed Protestant alphabet; the latter has been much more widely used by the Australian Deaf community. There has been mixing and borrowing between the two, and people who knew the Catholic one-handed manual alphabet tended to know the Protestant two-handed alphabet as well. However those who knew the Protestant two-handed alphabet usually did not know the one-handed alphabet.

There has been almost no study of contact between the two sign languages although Johnston (1998) has suggested that the acceptability in Auslan of loans from ASL may reflect the presence of AISL (like ASL a language descended from French Sign Language) in the Australian Deaf community. While this idea is interesting, Johnston does not elaborate on the relationship between Auslan and AISL any further,

although Johnston's Auslan dictionary (1998) includes signs also found in the 1942 edition of the dictionary of signs used in the Catholic education system, particularly: COUSIN, MORNING, HOME.

3.1 Australian Sign Language:

Australian Sign Language is descended from BSL (Deuchar, 1984a; T. Johnston, 1998) and shares the same history as modern day BSL until the exportation of BSL to Australia. The first description of signing by a deaf person in Britain is from the register of the marriage of Thomas Tillsye and Ursula Russell in 1575 (Sutton-Spence & Woll, 1999). Earlier descriptions of signs are found in John Bulwer: *Chirologia* in 1644 and *Philocophus* in 1648. In the latter, Bulwer describes the signing used by two deaf brothers, to whom the book is dedicated. Johnston and Schembri (2007) examined the descriptions in these publications and found that some signs such as GOOD, BAD, WONDERFUL, SHAME, CONGRATULATE and JEALOUS resemble the signs used in modern dialects of BSL. Other early accounts of signing in Britain include an entry in Pepys' diary of how Sir George Downing and his deaf servant conversed using signs about the Great Fire of London in 1666 (Sutton-Spence & Woll, 1999). The first school for deaf children was opened in 1760 in Edinburgh by Thomas Braidwood (Jackson, 2001), using both speech and signing (Kyle & Woll, 1985).

With the colonisation of the Australian continent by British settlers from 1788 onwards, British Sign Language was brought to Australia with the early settlers. The first known deaf person to immigrate was Elizabeth Steel (Branson & Miller, 1995) who arrived on the 'Lady Juliana' on 3rd June 1790. She had been transported for stealing a silver watch from a George Childs, who owned the public house in London at which she worked and was sent to Norfolk Island where she married another settler, James Mackey. She died on 8 June 1795 after her return to Sydney as a free settler.

Figure 3.1: Elizabeth Steel's headstone[3]

There were also Deaf people who used sign language in their trials at the Old Bailey as early as 1725 (predating the first Fleet to Australia which arrived in 1788). The Old Bailey records show that James Saytuss ('Dumb o Jemmy' (1771), Thomas Jones (1773), John Fitzgerald (1818) and James Smith were sentenced to transportation (Stone & Woll, 2008). Although it is not known where they were sent, it is quite conceivable that Fitzgerald and Smith were sent to Australia. The first known free settler who used signing was John Carmichael, a Deaf engraver. He was born in Edinburgh, Scotland on 27 December 1803 and arrived in Sydney in 1825 on the *Triton*. He had been enrolled at the Edinburgh Institute for the Deaf and Dumb (Carty, 2000) in 1812 as a fee-paying student. The following year Thomas Pattison, who established the first school for Deaf children in Australia, was enrolled as a pupil at the same school, so these two Deaf pioneers were actually contemporaries at the same school in the same period. Carmichael was known to be a 'good storyteller', and there are records of him telling stories about cockfighting as he grew up in Fleshmarket Close off the Royal Mile, his father being a poulterer.

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[3] http://www.cityofsydney.nsw.gov.au/history/foundations/zoom/lg_headstone2.html

Figure 3.2: Fleshmarket Close today[4]

He worked as an artist and engraver on arrival in Australia and received commissions from the colonial government as well as the General Post Office. He died on 27th July 1857.

Figure 3.3: 'Bay Whaling' 1848. Original etching by John Carmichael.[4]

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[4] Author's collection

The establishment of schools for deaf children in Melbourne and Sydney

consolidated the place of BSL in the Australian Deaf Community. Thomas Pattison

opened the first school for Deaf children on 22 October 1860 in Liverpool Street,

Sydney. Pattison was born in Edinburgh on 5th January 1805 and had previously been

secretary and treasurer of the Edinburgh Deaf and Dumb Benevolent Society[5] (now Deaf

Action in Edinburgh).

Figure 3.4: Thomas Pattison The founder of the first school for Deaf children in Australia[6]

Frederick John Rose established the school for Deaf children in Melbourne on

12th November, 1860 (Burchett, 1964). He was born in Oxford on 21st September 1831

and educated from the age of 9 at the Old Kent Road Asylum for the Deaf in London.

The establishment of the school in Melbourne was a result of Rose responding to the

publication of a letter to the editor of *The Argus* from Sarah Lewis, the widowed mother

of a deaf girl, Lucy Lewis, who was later the first pupil of the school (Flynn, 1999).

Rose, who was at the time working as a builder in Bendigo (in the Victorian goldfields),

responded to the letter, returned to England where he married and then came back to

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[5] http://www.ridbc.org.au/aboutus/history.asp
[6] http://en.wikipedia.org/wiki/File:Thomas_Pattison.jpg

Melbourne to open the new school in Peel Street, Windsor, which is now an inner-city suburb of Melbourne.

Figure 3.5: Rose's reply to Sarah Lewis' letter in the Argus[7]

Figure 3.6: Frederick Rose.The founder of the second school for Deaf children in Australia[8]

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[7] http://home.vicnet.net.au/~vsdc/
[8] http://www.vcd.vic.edu.au/6354650/victorian-college-history.htm

The establishment of the two schools predates the introduction of AISL to Australia by 15 years. Schools for Deaf children which used BSL (later Auslan) were established in Adelaide (1874), Brisbane (1893), Perth (1896) and Hobart (1904). (Carty, 2000, 2004; Flynn, 1999; T. Johnston & Schembri, 2007) describe a succession of teachers, missionaries and others who arrived in Australia from Britain, all of whom used BSL. It should be pointed out that BSL was used in England, Scotland and Ireland at the time because as will be seen in section 3.2, the history of modern ISL starts in 1846.

Carmichael, Rose and Pattison were among the first known signing emigrants to Australia, followed by Henry Hallett (who arrived in 1836 and has Deaf descendants still living in Adelaide). Samuel Watson, the Headmaster and Superintendent of the New South Wales Institution for the Deaf and Dumb and the Blind, arrived from Ireland in October 1870 and Samuel Johnson, who worked at the Melbourne Institution with Rose, and became Superintendent of the South Australian Institute for the Blind and Deaf from 1885, arrived in 1882. The Melbourne Deaf community was greatly influenced by the arrival of Adam and William Muir, Deaf twin brothers who arrived in 1878 from Glasgow, where they received some of their education) and Robert Ross Paterson (the hearing brother of a Deaf man, named W. A. Paterson, who went to the Deaf school in Glasgow), who arrived in Australia in 1888 and worked as a missionary at the Victorian Deaf Society. Another émigré who arrived in Melbourne was Ernest Josiah Douglas Abraham, a missioner who arrived in Melbourne in 1901 and worked as Superintendent at the Victorian Deaf Society until his death in 1940. In Brisbane, an early emigrant was Martha Overend Wilson, who was educated at the Claremont Institute in Dublin, arrived in Australia in 1888, and later became superintendent at the Queensland Deaf Society, (see also Pollard, 2006), and a later arrival was John Paul, a

hearing son of Deaf parents. His father founded the mission for the Deaf in Ayrshire and was the first Treasurer of what is now the British Deaf Association. John Paul arrived in Brisbane in 1927 and worked in both Victoria and Queensland. In Sydney, Herbert Hersee, a missioner from Portsmouth who had Deaf parents, arrived in 1928 to work in Sydney but was dismissed the following year.

From this list of immigrants to Australia who were either Deaf or hearing users of BSL, it can be seen that the sign language used in England, Scotland and Ireland had a great influence on modern Australian Sign Language.

3.2 Australian Irish Sign Language:

McDonnell (1996) and Leeson and Saeed (2012) outline a brief history of ISL, emphasising its links to deaf education, and referring to 'old' ISL and modern ISL. Old ISL was the language used in Ireland prior to the establishment of the first school for the Deaf in 1816 in Dublin (Leeson & Saeed, 2012; P. McDonnell, 1996; Pollard, 2006), a Protestant school where BSL was used (Kyle & Woll, 1985; Sutton-Spence & Woll, 1999; Woll & Sutton-Spence, 2007), and 'new' ISL, which developed following the establishment of this school and a number of Catholic schools for the Deaf. The first Catholic school was opened in Cork in 1822 and the Catholic Institution for the Education of the Deaf and Dumb was opened in 1846 in Dublin. It is not known for sure what the sign language of the Deaf community in Ireland looked like prior to 1846, but McDonnell (1996) and Leeson and Saeed (2012) believe that there was a signing Deaf community, and that 'old' ISL was influenced by both BSL and whatever signing was used by uneducated Deaf people in Ireland.

Father Thomas McNamara, a Vincentian priest from Dublin who was concerned about Protestant proselytising in the school system in Ireland, visited Le Bon Sauveur school in Caen, Normandy (McDonnell 1979,

http://www.stmarysdeafgirls.ie/s2_history.html) and returned to Ireland with the view

that a Catholic school for Deaf children must be established in Dublin. The already

existing Catholic school for Deaf children in Cork presumably used BSL. The

Dominican Sisters in Cabra subsequently established a school for Catholic deaf children

in the grounds of their convent, and a committee, later known as the Catholic Institute

for the Deaf (C.I.D.) was established to raise funds for a school for Catholic deaf

children. Two Dominican Sisters, Sister M Vincent Martin OP, and Sister Magdalen

O'Farrell, OP and their first pupils, Agnes Beedam and Mary Anne Dougherty

(McDonnell, 1979, Dominican Sisters website) set sail in 1846 for Le Bon Sauveur

School for the Deaf in Caen, Normandy. On their return, the school opened with fifteen

pupils who were admitted to the 'Cottage Parlour', a room in a building owned by the

Dominican Sisters in Cabra.

Nothing is known of Beedam and Dougherty's signing before their visit to Caen,

and how their signing was influenced by LSF after their visit to Caen, particularly when

meeting with other Deaf people (Leeson & Saeed, 2012).

Figure 3.7: Map showing the relative locations of Dublin, Cork and Belfast (Ireland), London (England) and Caen, France. (Source: Google maps)

Carmelite monks initially were involved in the education of Deaf boys from 1849, but this role was taken over by the Christian Brothers in 1856. This school moved to Cabra in 1857 as St Joseph's School for Deaf Boys, Dublin which was also established by the Catholic Institute for the Deaf. With respect to ISL in Australia, Johnston (T. Johnston, 1989, p. 17) states that:

> Since a large proportion of Australia's early immigrants were Irish, both free settlers and convicts, the role of the Catholic Church should come as no surprise. The Irish Catholics who were dedicated to the welfare of the deaf brought with them Irish signs and the one-handed alphabet. The alphabet was clearly borrowed from the French one-handed alphabet and the signs were a mixture of indigenous Irish signs with French borrowings. France was another Catholic country so we can assume that the connections between them were fairly strong.

In Australia, three schools for Deaf children provided instruction through AISL. The first was Rosary Convent, known as 'Waratah', which was established in 1875 in Waratah, a suburb of Newcastle, New South Wales, approximately 170 kilometres north of Sydney (Figure 3.8). The second was a boy's school, St Gabriel's, at Castle Hill, 45 kilometres west of Sydney, opened in 1927 (Figure 3.8). The third was St Mary's Delgany, opened in 1948, situated in Portsea, approximately 110 kilometres south of Melbourne (Figure 3.10).
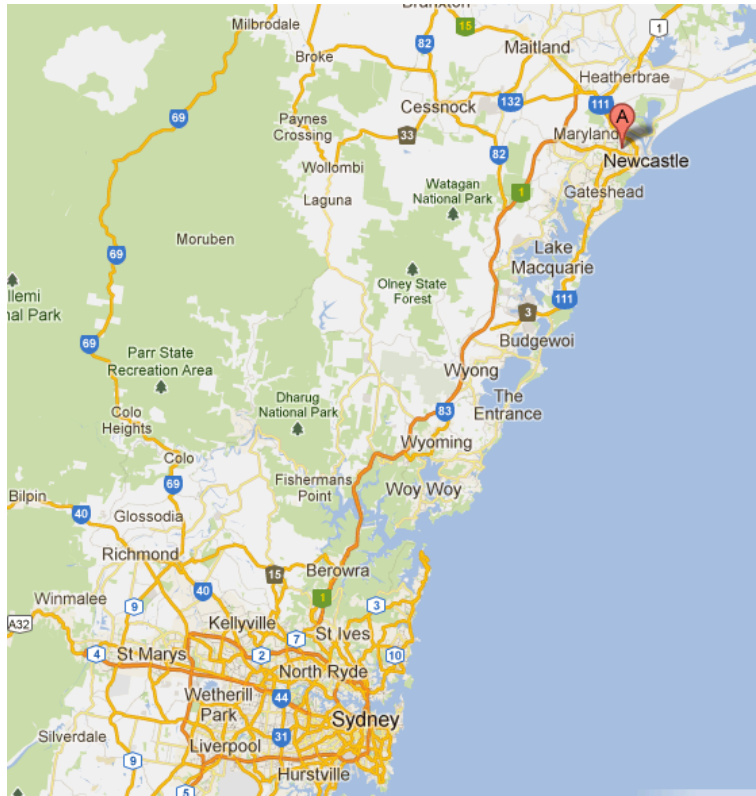
Figure 3.8: Map showing the relative locations of Waratah (A) and Sydney.
(Source: Google maps)

Figure 3.9: Map showing the relative locations of Castle Hill (A) and Sydney.
(Source: Google maps)
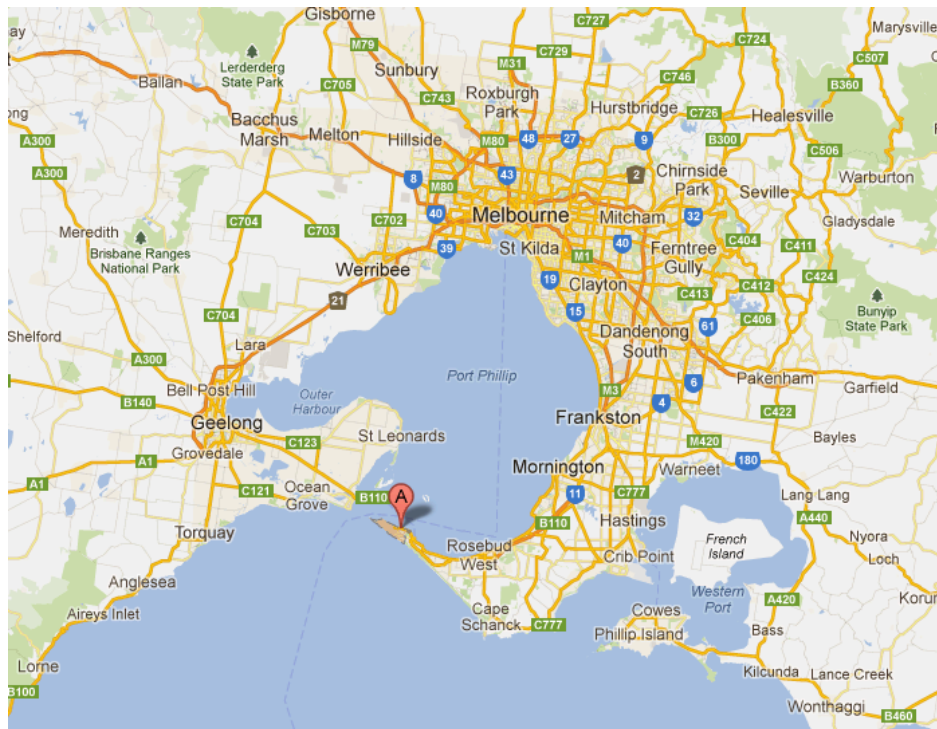
Figure 3.10 Map showing the relative locations of Portsea (A) and Melbourne.
(Source: Google maps)

The arrival of AISL in Australia can be traced to August 23, 1875 when Sister

Mary Gabriel Hogan, a Deaf nun, arrived in Sydney, Australia along with five hearing

nuns: Sister Ignatius Hayden, Sister Gertrude O'Loughlin, Sister de Ricci Dowley,

Sister Mary Patrick McEvoy, and Sister Mary Brigid Fitzpatrick (S. Fitzgerald, 1999).

Sr Hogan had originally been invited to Australia in 1873 but due to ill-health did not

arrive until two years later.

Figure 3.11: Sister Mary Gabriel Hogan, the founder of the first Catholic school for the Deaf[9]

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[9] http://www.opeast.org.au/archives/arch_special_ed.htm

Sister Mary Gabriel was born in 1842. She was deafened from scarlet fever in 1848 and entered the Deaf school in 1851. At the age of 13 she was appointed an assistant teacher and professed as a nun on 26 August 1867. Her arrival in Australia was at the request of Dr Matthew Quinn, the Bishop of Bathurst, who was concerned about the welfare of a Catholic Deaf girl, Catherine Sullivan (1859-1922), the daughter of Patrick Sullivan, an immigrant Irish farmer. She had been a pupil at the Sydney institution from 1866 until 1872 and did not receive a Catholic school education. It can be assumed that Catherine's first language was the BSL in use at the time. Through the intervention of a neighbour, she was taken by Bishop Quinn, the Bishop of Bathurst, to the Catholic convent in Maitland in 1872, after her father realised that she did not know or understand the significance of the rituals of the Catholic Mass, especially as she laughed one day at the Sign of the Cross. As Bishop Quinn had agreed to look after the Maitland diocese on behalf of his cousin, Bishop Murray, who had returned to Ireland to recuperate from illness, he was in contact with the Dominican Sisters in Dublin, and was able to take Catherine to the Catholic convent in Maitland. Subsequently, Bishop Quinn made his appeal for the Sisters from St Mary's in Dublin to come and establish a school in his diocese.

Figure 3.12: Catherine Sullivan[10]

Until the establishment of St Gabriel's in 1922, Deaf boys were taught at

Waratah until adolescence (B. Johnston, 2000) and from the early 1900s sent to the

Westmead Orphanage to continue their education with the Marist Brothers. There are

no records of how these boys were taught. The Prioress of Rosary Convent, Mother

Mary Columba Dwyer, was the sister of the Bishop of Maitland, and she lobbied the

Catholic hierarchy for the establishment of a school for Deaf boys. In 1922 two

Christian Brothers, Brother O'Farrell and Brother Allen, arrived in Sydney from

Cabra, Ireland to establish St Gabriel's. Another Brother already in Sydney, Brother

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10

http://www.catherinesullivancentre.org.au/index.php?option=com_content&view=article&id=1&Itemid=2

O'Shea, had worked at Cabra before arriving in Australia in 1920. Six boys were enrolled in the first year, and the building opened on 6th May 1923.

The introduction of oral education in Catholic schools in Australia followed a study tour by five Sisters and one Christian Brother in 1948 to New Zealand where sign language was proscribed in the education of Deaf people. After the visit, the following statement was produced:

> After visiting Titirangi (Auckland), Sumner (Christchurch), and St
> Dominic's (Wellington), two Adult Clubs for the Deaf and interviewing
> many persons qualified to express opinions regarding the education of the
> Deaf children, we came to the conclusion that the Oral System of
> educating the Deaf has advantages which we cannot afford to neglect
> and, therefore it should hold first place in our schools. (Fitzgerald et al.,
> 1999:161)

The use of sign language at St Gabriel's was discontinued in 1952 with the introduction of oral education, resulting in Deaf teachers losing their jobs (B. Johnston, 2000). Signing at Waratah was banned in 1953. Sister Ann Walsh, who taught at both the Waratah and Portsea schools, recounted the following story:

> The school became an oral school I think in 1952. Mother Rosario was
> there and she took the older girls and worked with them orally – because
> she didn't know the signs. Then all the signing teachers had to leave. All
> the women in the sewing room had to leave. Those who did stay on were
> not allowed to sign to the children.
> Esther (Hutchinson) and Agnes (Lynch) went that year. It was most
> traumatic. Sarah Page had come from West Australia. She didn't have a
> home to go to. She stayed on. Madeleine Meriau stayed on, she was from

New Caledonia and was blind and deaf. So Sarah looked after her. Irene

Ferguson and Maud Bryn also stayed on but all the others had to go.

The adult Deaf were very angry with me. I would try to communicate

with them but they would have nothing to do with me. One day Esther

said to me "I thought you would be on our side!" I felt very upset about

that, but I kept thinking "I'm doing the right thing. I can do this." (ibid

1999: 165)

The policy change happened in spite of a 1945 Waratah Report, where Sister Mary

Regis, a long standing teacher at Waratah wrote:

We cannot warn Catholic parents too often that much deception is by

unscrupulous and irreligious promoters of the cause of the Deaf who

assert that children born Deaf can be educated by means of speech

training and lipreading. Let them remember that such accomplishments

are of rare occurrence, and so much valuable class time has to be devoted

to oral teaching that the cultivation of the intellect and religious training

have to be crowded out. It is a quite different case where some children

have some remnant hearing or have become deaf even at the tender of

five, six or seven years.

The natural language of the Deaf, the sign language, is too often looked

upon with disfavour, its use even forbidden. Communication can take

place only when something that is said is understood, whether it is 'said'

in writing, speech or fingerspelling. (Fitzgerald 1999:138)

In spite of Mother M Regis' beliefs, St Mary's Delgany in Portsea was opened in 1948

as an oral school, with six sisters, including Sister Mary Madeleine, (see also O'Brien,

undated) who had previously used AISL, along with other sisters: Sister Mary

Theophane, Sister Antonina Mary, Sister Lawrence Mary, Sister St Matthew, Sister

Mary Christina and Sister Mary Paschal. Sister Ann Walsh in her narrative recounts:

> Portsea was opened as an oral school for the Deaf. Though the ex-students told
>
> me that Mother M Madeleine used to teach with signs behind closed doors
>
> when nobody was watching. She felt they had to have something besides
>
> speech, they said. She and Sister M Theophane knew the signs. (Fitzgerald
>
> 1999:160):

Pierre Gorman, who with his mother was one of the early benefactors of Delgany (and

later invented the Paget Gorman Signing System (Paget & Gorman, 1976) wrote of his

visits to the newly established school:

> Unfortunately many of the older children have learned finger-spelling or
>
> manual signs at previous schools. This, I fear will have a retarding effect on the
>
> young, promising oral pupils, since they will find it much quicker and easier to
>
> use signs rather than to lipread when they are left to themselves... The tendency
>
> to resort to sign language of the older pupils will discourage spontaneous
>
> natural speech and lipreading (Fitzgerald 1999:139).

As will be seen from the interviews in Chapter 5, there existed a culture of sign

language in spite of the official policy of the oral method of education. Older pupils

who had been to other schools for Deaf children continued to use sign language, and

according to Sister Ann Walsh, some teachers continued to use sign language behind

closed doors.

3.3 Education policy in Auslan schools

The founder of the Victorian School for Deaf Children, F J Rose, was described by

Burchett (1964) as "without speech but yet by means of writing, the manual alphabet

and gesture, was able to impart knowledge to others afflicted in like manner as

himself". From its establishment, the school has always had signing (later known as Auslan) at the heart of its education philosophy. The first record of oral education at the Melbourne school was in 1876 where a man offered his services in teaching the Deaf children lipreading, but there were no further developments. In 1879 a Mr Hutchinson (a pupil of Van Asch, after whom the oral school in Christchurch, New Zealand is named) commenced duties as a teacher of articulation, and he taught a group of pupils who were segregated from other signing children. In 1891 the 'pure oral method' became the 'combined method' under Miss Florence Vardon, who had commenced duties in 1891 after the end of Mr Hutchinson's term in 1887. The combined method was then used in the school until the publication of Burchett's history of the school in 1966. Burchett (1966) also recounts the visit of the Ewings in 1950, which resulted in an adverse report on the Melbourne school and was followed by the establishment of oral schools in Victoria, particularly Ewing House in Ballarat, McDonald House in Bendigo and Glendonald in Melbourne.

A similar history can be seen at the Darlington school. While the school opened as a signing school, by 1907 the school was separated into groups where children were taught through signing, writing and articulation (Crickmore, 2000) although the school never stopped signing. The school continued through the twentieth century in this way although the oral method was increasingly preferred over the combined method by the 1930s. With the introduction of mainstream units (called OD units – Opportunity Deaf units) in the late 1940s, which took in oral Deaf children, the remaining school population tended to be Deaf non-mainstreamed children who were taught using the combined method.

3.4 Research into Irish Sign Language:

Research into Irish Sign Language has been less extensive than in other sign languages such as ASL and BSL. However, there is a growing body of research which has considered different aspects of the linguistics of ISL. Dictionaries of ISL have been produced over the years, but some have just been vocabulary lists, not based on linguistic research (Foran, 2006). The first formal research was undertaken by Patrick McDonnell whose doctoral dissertation investigated the structure of verbs in ISL, and researchers such as Patrick Matthews, Donal O'Baoill, Barbara LeMaster, Carmel Grehan and Lorraine Leeson, among others, have contributed significantly to the field. McDonnell (1996) found that ISL shares grammatical and morphological features such as verb categories with other sign languages. In his study McDonnell reports that ISL verb categories in ISL include plain verbs, agreement verbs and classifier predicates (1996:272); agreement verbs include person agreement verbs and locative agreement verbs (which in turn include locative verbs and classifier predicates of motion and location. Older signers are less likely to use verb agreement than younger signers and more likely to use verbs in their uninflected form (Leeson, 2005; P. McDonnell, 1996). McDonnell also touches on other features of ISL which include non-manual features and discourse features (referential shift, subject argument deletion).

The issue of ISL and gender has been investigated by LeMaster (2000), and by Leeson and Grehan (2004) and Grehan (2008). Different male and female varieties of ISL exist because of the different signs used in the two centralised schools for Deaf children in Ireland – one for girls and another for boys. How men and women negotiate the different status of each variety has also been investigated – the men's variety has tended to be more prominent in the community and women have had to learn how to use the men's variety although men occasionally use women's signs, particularly if the signer had a Deaf mother. There are differences in vocabulary – LeMaster found there

was only a 63% similarity between the signs used by men and women. Leeson and Grehan (2004) found also that there were gendered signs used by women which were not used in the presence of men. They also found that women produce nearly twice as many simultaneous locative constructions as their male counterparts do. Leeson (2005) also observes that men are more likely to use a topic construction involving backwards head tilt and raised eyebrows to mark a new topic, while women only use an eye blink to mark a new topic. Both men and women mark the offset of a topic with an eyeblink.

O'Baoill and Matthews (2000) published the first description of ISL in *The Irish Deaf Community Volume 2: the Structure of Irish Sign Language* which includes a description of the phonology of ISL, the morphology of ISL, including descriptions of pronominals, plurality, tense & aspect and inflection. They discuss differences between the verb system in ISL and those of ASL and BSL. They report that the typology of classifers in ISL is similar to that of other sign languages.

A corpus *Signs of Ireland* (Leeson, Saeed, Macduff, Byrne-Dunne, & Leonard, 2006) with 40 signers, both male and female, aged between 18 and 65 in Ireland and which included both interviews and elicitation of narratives (the frog story and Volterra picture elictation task) has been created as a resource for future teaching and research on ISL. With such a rich database of ISL, it will be possible in future to research and produce a more definitive description of ISL vocabulary and grammar, as well as sociolinguistics. Leeson and Saeed (2007) also discuss simultaneity in ISL at several linguistic and cognitive levels, and the existence of buoys, which is the use of the non-dominant hand to count or list items.

Mouthing has also received some attention in ISL from Mohr-Militzer (2011) and Fitzgerald (2014), both of whom use a cognitive blending theory framework to examine seven categories of blends, including mouthing, using as data the Signs of

Ireland corpus where participants were asked to recount personal narratives and re-tell the *Frog Where Are You?* story in ISL; Fitzgerald also found a gendered influence on mouthing, with women generally using more mouthing than men.

3.5 The language situation in Northern Ireland:

Leeson (2005) discusses the language contact situation between ISL and BSL. In the recent past, many Deaf Catholic children from Northern Ireland were sent to Dublin to be educated. Ó hEorpa has proposed (Leeson, 2005) that a new variety of sign language has emerged which includes elements of both ISL and BSL. Leeson also comments that despite the sectarian divide in Northern Ireland, contact has always continued between Deaf people in the Republic of Ireland and the province of Northern Ireland, especially in relation to sport.

3.6 Conclusion:

It can be seen from the literature that the dialects of BSL: BSL and Auslan, as well as the dialects of ISL: ISL and AISL, have different social histories, although all are languages of minority communities in the British Isles and Australia. BSL, the sign language of Deaf people in Great Britain, arrived in Australia with the early settlers, the earliest known being in 1823. On the other hand, ISL, which was the language of Deaf people in Ireland from 1848, when the Catholic Church established a school in Dublin, arrived in Australia in 1875 when a group of nuns arrived to establish the first Catholic school for Deaf children. While both languages have similarities at the phonological, and grammatical levels, the languages are not lexically similar, and there are differences– the most striking difference being the presence of gendered signing. The next chapter will discuss how the sociolinguistics of the AISL and Australian Sign Language contact situation was investigated.

CHAPTER 4: SOCIOLINGUISTICS METHODOLOGY

4.0 Introduction – sociolinguistics methodology.

Having examined the nature of bilingualism and language contact, as well as the history of BSL and ISL in contact, this thesis will now turn to the sociolinguistic aspect of this language contact. This study consists of two data sources: interviews and an experiment. The interviews had two aims: the first was to explore attitudes and thoughts about their language experiences with people who were bilingual in ISL/AISL and BSL/Auslan. The interviews will contribute to a subsequent language documentation study outside the scope of this thesis. They also provide data for an analysis of code-switching and code-mixing phenomena found in situations where BSL/Auslan and ISL/AISL are in contact (Chapter 6). This pairing of languages is of particular interest because both pairs exist alongside the same majority spoken language – English. This removes any possible influence of different spoken/written languages. Given that the sociolinguistic histories of the two dialects of the two sign languages are different (see Chapter 3), comparisons will be made between the participants in the two different locations (i.e. Northern Ireland and Australia).

The aim of the experimental study was to investigate the cost of switching between two sign languages; the analysis of this study is discussed in Chapters 6 and 7. The experimental study was designed to establish whether the processes involved in the code switching that could be seen in the interviews were comparable to those for spoken languages. This is the first study of contact between two pairs of sign languages which exist alongside the same spoken majority language in two different locations, and the first experimental study of code-switching between two sign languages. As will be discussed in section 6.1.1., different groups took part in the sociolinguistic interviews and discussions (which were completed first) and the experimental task (which was

completed later) as it was felt that the interview participants were too old to undertake the experimental task.

4.1 Sociolinguistic interviews

Interviews were conducted with thirteen bilingual Deaf participants. Eleven Australians were interviewed (six in Sydney, four in Melbourne and one who was visiting London). All were bilingual in a dialect of ISL and a dialect of BSL. The Australians were bilingual in Australian Irish Sign Language and Auslan, and those from Northern Ireland were bilingual in ISL and the Northern Ireland variety of BSL. All had knowledge of written English. The interview comprised a set of semi structured questions. The participants were asked at the end of the interview to sign *Hail Mary* and *The Lord's Prayer*, as examples of frozen texts. Additionally, participants in Melbourne and Sydney took part in a group discussion session. The pilot interview took place in 2007 in London, and the Australian and Northern Irish interviews took place over a twelve month period in 2009.

4.1.1 The Participants

As described above, interviews took place in two countries: Australia (Melbourne and Sydney), and the UK (Belfast, and for one Australian participant, London), and the discussions only took place in Melbourne and Sydney. In all cases, participants were unimodally and cross-modally multilingual: with BSL (or Auslan) and ISL (or AISL) as their two sign languages, and English as a written language. Participants met the following criteria: (a) they were deaf from birth or early childhood; and (b) they had been educated in AISL or ISL during their schooling. Four had AISL as an L2 having first started their education in schools using Auslan; these participants reported that Auslan was only used in their early years of schooling – all had learnt AISL by 10 years. All except participant SM1 had hearing parents who were not native signers of

either ISL/AISL or BSL/Auslan; SM1's parents were both deaf; the parents had been educated in AISL as an L1 and never learned Auslan.

Ethics approval was obtained from the Graduate School Ethics Committee of University College London through the Deafness Cognition and Language Research Centre, and informed consent was obtained from each participant. The study was explained in sign language with each participant, before written consent was obtained. Consent was also obtained to use video clips and images of the discussions and interviews, but not of the experimental tasks.

All Australian interviewees were personally known to each other and to the researcher, having been contemporaries of the researcher's mother both at school and in the Australian Catholic Deaf community. As the researcher had exposure to AISL from very early childhood through his mother, all the Australian interviewees knew that the researcher had good receptive skills in AISL. In Northern Ireland, the interviews and experimental task were arranged with the help of the Royal National Institute of the Deaf Office in Belfast.

The following table summarises demographic data about the participants: their age, age of AISL/ISL acquisition and their families' knowledge of AISL/ISL.

Sydney Interviews	Age	Age learnt AISL	Family members who use AISL
SM1	55	Native	Parents, brother
SM2	68	5	Wife
SM3	70	4	-
SF1	68	5	-
SF2	68	6	-
SF3	82	10 (Auslan is L1)	Brother, children

Table 4.1: Sydney interviews

Melbourne interviews	Age	Age learnt AISL	Family members who use AISL
MM1	68	7	-
MM2	65	10 (Auslan is L1)	-
MF1	68	5	Husband, son
MF2	68	8 (Auslan is L1)	Sister, nephew, niece
MF3	69	8 (Auslan is L1)	-

Table 4.2: Melbourne interviews

Belfast Interviews	Age	Age learnt ISL	Family members who use ISL
BM1	59	7	-
BM2	60	7	-

Table 4.3: Belfast interviews

All participants were over the age of 55, and most participants were in their late sixties (range 55 – 82 years, mean 73). This reflects the aging demographics of ISL/BSL bilinguals in Australia. The only Australian participant under 60 was a native signer who learnt AISL from his Deaf parents who had attended Waratah and St Gabriel's. In the four cases where AISL was the L2, the participants were initially educated in the State School for Deaf Children. Participant MF3, for example, was educated at the Victorian School for Deaf Children until St Mary's Delgany opened when she was seven years old, where she was joined by participant MM1 who was starting his school education. Participant MM2 was educated at the same state school as MF3 until he was old enough to go to St Gabriel's in Sydney as a boarder. As a result, participants MF2 and MF3 have Auslan as a L1 but were educated in AISL as well. Participants MF1, SF1 and SF2 have AISL as their L1 and learnt Auslan as L2 after completing their formal education. As there was no AISL school in the state of Victoria until the establishment of St Mary's Delgany, Portsea in 1947, there are four participants who have Auslan as a first language.

For those from Sydney, from 1875 until the early 1950s there was a choice of Auslan- and AISL-medium education in the same city. All participants had AISL as L1 and Auslan as L2, having learnt Auslan after completing formal education, except SF3, who went to Darlington School before being sent to Waratah. Some participants reported having been initially sent to Darlington or VSDC because their parents did not want to send them too far away from home until they were older. For example, MM2 did not attend St Gabriel's until after having attended VSDC.

The two participants from Belfast were educated in ISL as their L1 and learnt BSL after starting school at Cabra. As can be seen from the experimental study (Chapter 5), it is possible to find people in Dublin who are bilingual in ISL and BSL who are much younger than the Australian interviewees. This indicates that the sociolinguistic situation of ISL/BSL bilinguals in Dublin differs from the Australian and Northern Ireland context.

Data were collected in one-on-one interviews and group discussions. Sessions lasted between 20-90 minutes and were video-recorded. The larger the group, the longer the group discussions. The following group interviews took place: 1) SF1, SF2 and SF3; 2) MF2 and MF3; 3) SM2 and SM3; and 4) MM2 and MM3. SM1 and MM1 were interviewed individually. Because of the age of the participants, individual data were collected while in the group setting, rather than ask them to wait while others were interviewed.

The settings of the various sessions are illustrated in Figure 4.1.
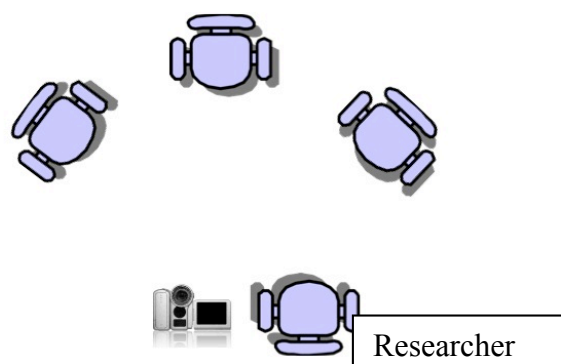
Figure 4.1: Group setting

The SM and SF interviews took place at the Deaf Society of New South Wales in Parramatta, New South Wales, Australia, and the MM interviews took place at VicDeaf in East Melbourne, Victoria, Australia. MF1 was interviewed at the Deafness Cognition and Language Research Centre in London. MF2 and MF3 had their discussion at a local bistro restaurant in Melbourne that was mutually convenient for them both to travel to in order to meet with the interviewer; MF3 was interviewed in the same place, and MF2 was interviewed at the interviewer's family home.

Sessions were recorded using a DV camera, and recorded onto DV videotapes. Following the sessions, the recordings were digitized using iMovie software on a Mac computer, and each interview was saved as a QuickTime video for subsequent linguistic analysis.

4.1.2 Discussions and interviews:

The sessions were split into two parts: group discussions and one-to-one interviews. These usually took place at the same location on the same day. The only persons present during the interviews were the Deaf researcher and the participants. In the group discussions, participants were videotaped in pairs or threes reminiscencing about school

74

days, including funny moments, best memories, and aspects of school life such as food,

traveling to boarding school and fellow pupils.
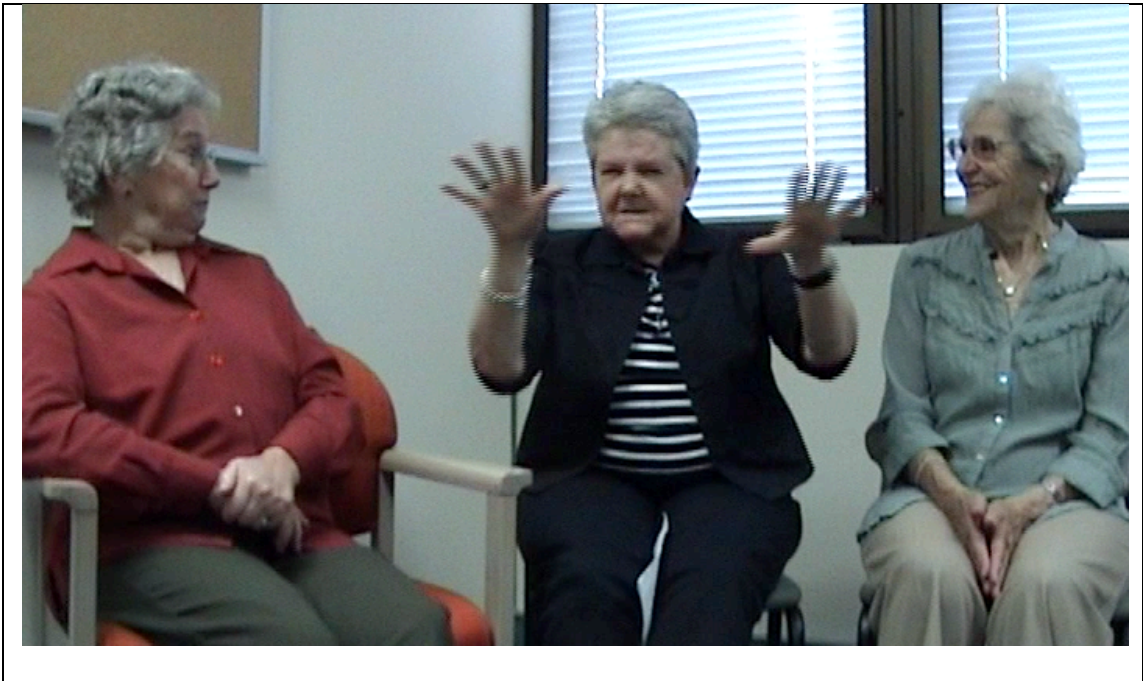
Figure 4.2: setting for the Sydney female discussions.

Figure 4.3: setting for the Melbourne female discussions.

The questions used to elicit discussion were: (min 30 minutes)

1. What do you remember the most from your school days?

2. Who were your friends?

3. What was the funniest thing that ever happened in your school days?

4. What was the food like at your school?

5. What is your favorite food and why?

6. How did you travel to school, and how often did you go home?

7. Can you explain to me how to make your favourite recipe/Can you explain to me how to change oil and plugs in a car?

8. Where do you usually buy your clothes?

9. Do you think you got a good education at your school?

10. What was it like to go to the (Protestant) Deaf Club for the first time?

The interview included the following questions:

General background information

1. How old are you?

2. When did you become deaf?

3. How did you become deaf?

4. Do you have any deaf family members (both immediate and extended)?

5. Where were you born? Where have you lived? Where do you live now?

6. What ages were you when you lived at these places?

7. What do you do to earn a living?

Education

8. Do you have any educational qualifications?

Self-reported language competency

9. What language(s) do you know and use regularly?

10. Which language do you prefer to fingerspell in?

11. How comfortable are you with using those languages (on a scale of 1 [not comfortable at all] to 5 [very comfortable])

12. How long have you known the various languages that you use?

13. How old were you when you learnt ISL/AISL?

14. How old were you when you learnt Auslan/BSL?

Self-reported language use

15. With whom do you interact on a regular basis to use the languages that you know? What situations? (religion, etc.)

16. What signed language do you use most frequently?

17. Do you feel that there are times when you shouldn't use one of your languages?

Not all questions were asked in the discussion and interviews. For example, discussion questions 7 and 8 were not required because the information was obtained in other parts of the sessions.

The dynamics within these sessions have to be carefully considered. AISL is in danger of becoming a moribund language, which in turn heightens the need for research and documentation; the last publication which documented this language was published in 1942 (Dominican Nuns, 1942). As will be seen in Chapter 5, interview participants report decreasing usage of AISL and ISL in both Australia and in Northern Ireland; AISL has not been taught as a language of instruction in school since the 1950s (S. Fitzgerald, 1999) and the participants (except SM1, who had Deaf parents) are all over 65 years of age. Participants in Belfast also report that BSL is used more than ISL in Northern Ireland, even though ISL is alive and well in the Republic of Ireland. This means that for this kind of research into language shift, language attrition, or even language death, the participants are of great interest, as informants for this study, and as a source of material for a language documentation study. It therefore is exceptionally important for the researcher to maintain a good relationship with the participants (Blodgett, Boyer, & Turk, 2005). There are also issues of socioeconomic status. Ladd (2003) discusses how Deaf people have had reduced education and employment opportunities, and so in general the participants are of a low socioeconomic background - different from a researcher with university qualifications and an academic post. Thus the recruitment and filming of participants needs to be considered carefully and undue

pressure through the use of social networks should be avoided. In this study the researcher used family networks to contact potential participants. This might make those contacted to feel obliged to take part because of family and social networks, although in this case, participants seemed delighted to have been asked to be involved, and most were able to meet as arranged. Chapter 5 will also discuss how some Deaf people who know AISL and ISL feel themselves to be members of a neglected minority group; this study was seen by them as a way of redressing this, particularly with the position of the researcher as an insider.

As a part of a public engagement process, the research findings will be shared with the AISL and ISL Deaf communities. This will hopefully encourage more people to consider being involved with research in the future – as Blodgett et al. (2005) mention when they discuss maintaining good relationships with research participants.

The concept of reflexivity is of great relevance to this study. This concept has arisen in feminist studies (Sanger, 2003), where in the context of male-dominated academic settings, women have researched other and less powerful women, enhancing their own social standing, leading to improved work opportunities over less powerful women. Reflexivity refers to researchers turning the lens on themselves, examining themselves and discussing how they are affected by the research process, and in turn, the effect of this on the research topic or research population. With respect to this research study, the pertinent questions are:

1. Do the participants see the benefits of this study?
2. Do the participants want to be involved?
3. Do the participants feel obliged to become involved?
4. Do the participants understand what academic research entails?
5. Does the social standing of the Deaf researcher from within the Deaf community have an influence on recruitment for this study?
6. Will this research empower the participant group?

The issue of participant empowerment is considered by Young and Ackerman (2001), who discuss power dynamics in deafness-related research, – given that most researchers of sign language are not Deaf. Milroy (1980) also considers the need for the researcher to assess his/her insider/outsider status, in relation to the social context being investigated. Even though this study is being carried out by a Deaf person from within the Deaf community, reflexive consideration reveals that (1) even though the researcher is Deaf and his first language is Australian Sign Language: he has never used ISL or AISL exclusively (even though it was sometimes used in the family) and (2) in the absence of other studies of the language, the participants will only be able to see the benefits of being involved after the research findings have been disseminated.

Labov (1972) discusses the observer's paradox:"The aim of linguistic research in the community must be to find out how people talk when they are not being systematically observed; yet we can only obtain these data by systematic observation." (1972:209)

A strategy proposed by Labov was to create 'style shifts' where participants would be led to feel they were not being observed through some of the more informal aspects of a linguistic investigation. In the study reported here, participants were asked to talk about themselves through semi-structured questions, and then invited to participate in discussions and reminiscences about their school days, involving a shift from a formal setting to an informal discussion with familiar people about familiar settings (i.e. the Deaf school, memories of school days and the Deaf Club). Both the Deaf Club and the Deaf school are central to Deaf culture and its transmission (Carty, 2004; Ladd, 2003; Padden, 2007) and so are topics which are highly familiar.

As discussed earlier, since the researcher has never exclusively used ISL or AISL in the family or in education, he might be seen as an observer, with the

participants using language varieties to accommodate this. It was decided to set up

situations in which there would be discussions between participants who could then be

prompted with questions and comments from the researcher. As can be seen in Figures

4.1, 4.2 and 4.3, the participants in discussions face each other more than they face the

researcher – it was hoped that this strategy would reduce the observer's paradox. On the

other hand, Figure 4.4 shows how the individual interview with MF2 was set up; she

faced the interviewer and the camera during this discussion:
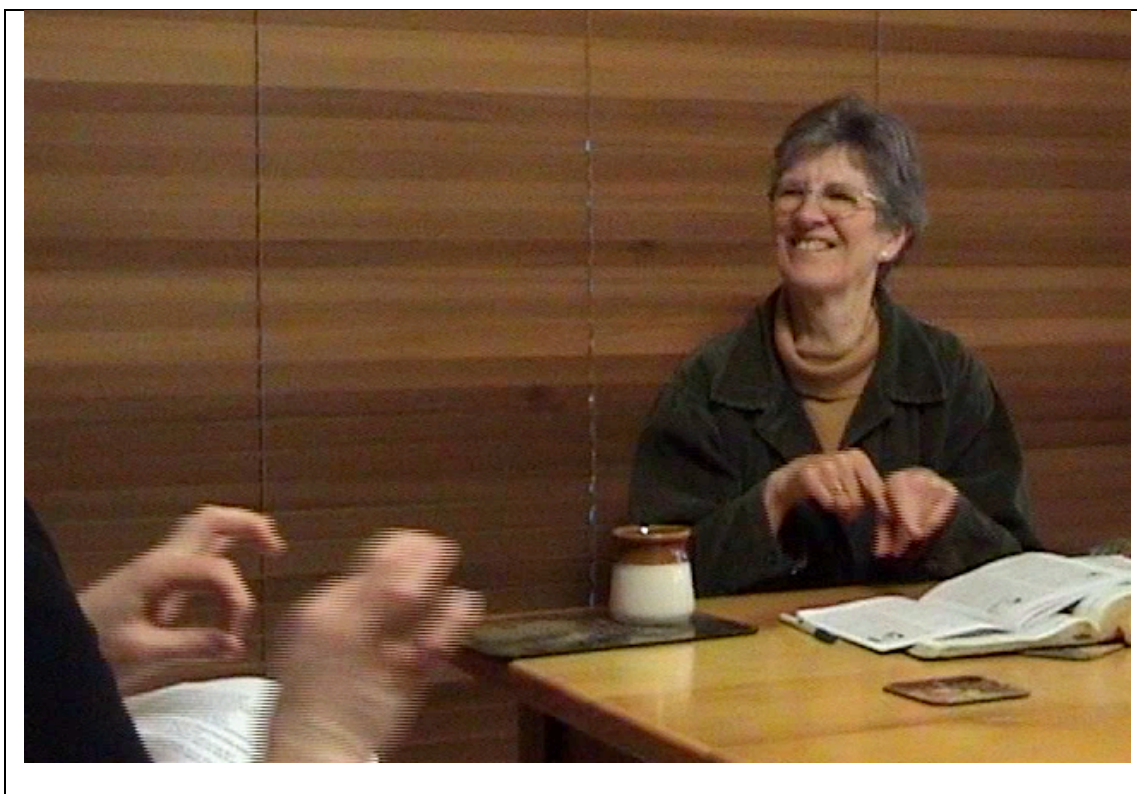
Figure 4.4: Individual interview with MF2.

4.2 Coding

For analysis of the content of the sociolinguistic discussions and the interviews, each

clip was translated into English from sign language, using the Quicktime clips which

were exported with the iMovie software. Each participant was anonymised, and

references to other participants were given a code (e.g. MM1 refers to MF2 during his

interview) and other references were anonymised for name and place so as to protect the

identities of the participants, their families and friends. Although it will be possible for other members of the AISL language community to roughly identify the participants through some of the participant data (e.g. age, number of family members) the altering of other information such as birth place and place of residence reduces this likelihood.

All interviews were coded using ELAN, a language archiving software tool which is available online (Crasborn & Sloetjes, 2008).
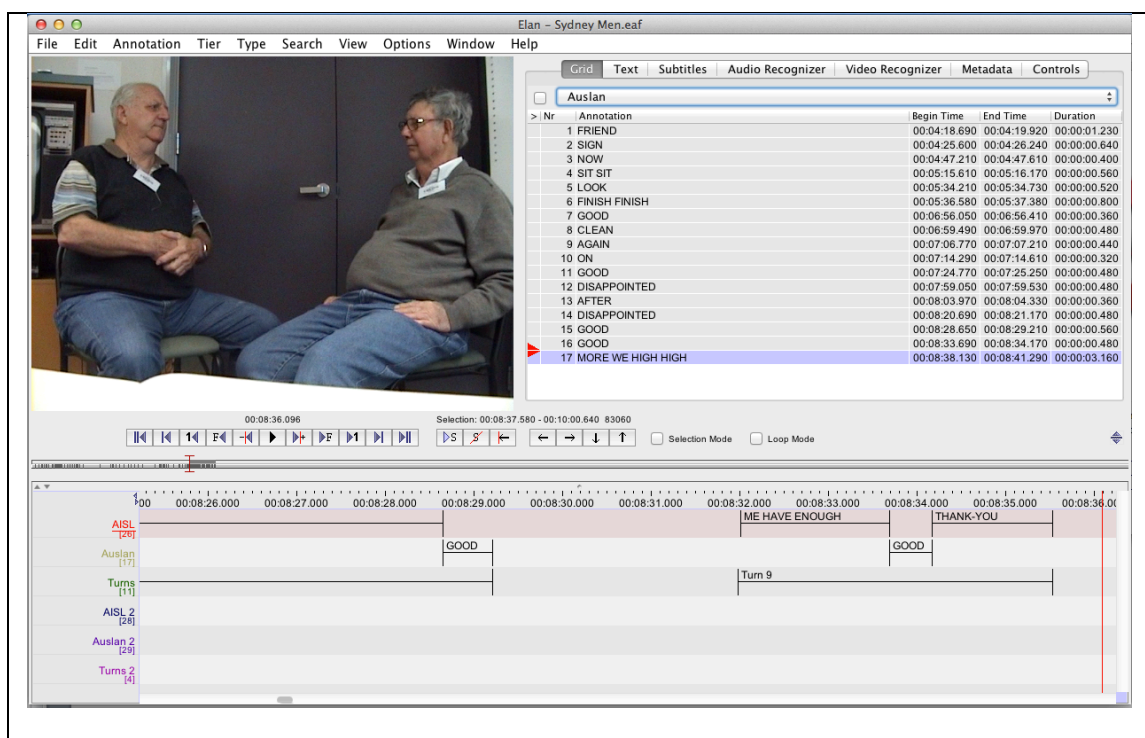
Figure 4.5: Example of Elan coding from the SM interviews.

Each video clip was coded for:

1. all stretches of AISL or ISL signing
2. all stretches of Auslan or BSL signing
3. the number of actual signs used in each conversation turn
4. the number of mouthings (English) per turn and per sign

4.3 Conclusion

This study comprised a set of interviews conducted in London, Melbourne, Sydney, and Belfast with thirteen participants, and discussions between ten of the same participants

in pairs or small groups. The Observer's Paradox (Labov, 1972), power dynamics

(Young & Ackerman, 2001) and reflexivity of the researcher (Sanger, 2003) all had to

be taken into account in the design and the actual carrying out of the interviews, which

were then transcribed into English for the sociolinguistic data, discussed in Chapter 5,

and coded using ELAN (Crasborn & Sloetjes, 2008) to investigate the switches between

the two languages, discussed in Chapter 7.

CHAPTER 5: CONVERSATION AND INTERVIEW DATA

5.0 Conversation and interview data.

The interviews provide a rich source of sociolinguistic information on a variety of aspects such as domains of use, (including Deaf families and men and women's signing), education (including Deaf teachers and oral education), attitude to AISL as a minority sign language (including ownership of ISL/AISL), ISL in general (including learning AISL/ISL, learning BSL/Auslan, accent, name signs, and the influence of English on AISL), interpreting, and language attrition. Each aspect varies in importance, but most interview participants in Australia and Ireland refer to the differences between men's and womens' signing, and almost all of the Australian participants discuss the attitudes of the majority Auslan-using community to the minority AISL-using community.

Interviews took place in Melbourne (MF2, MF3, MM1 and MM2), Sydney (SF1, SF2, SF3, SM1, SM2 and SM3), London (MF1) and Belfast (BM1 and BM2), enabling a comparison between the sociolinguistic situation in Australia and Northern Ireland. The conversations between the participants about their school experiences, provided material for the analysis of code-switching data (Chapter 7). All participants were known to each other.

The interviews and conversations were recorded onto DV videotape, digitised using iMovie software and exported to individual video clips in Quicktime format. They were then translated into English in full (Appendix 1), and then organised into topics in this chapter. These topics are made up of frequently-occurring themes which arose from the conversations and relate to majority/minority Deaf community issues, language identity, and the characteristics of language use (Auslan/BSL, ISL/AISL and English).

The analyses of code-switching in the conversations will be presented in Chapter 7. The quotes themselves can be cross-referenced with the interview transcripts in Appendix 1, and each has a page number in the Table of Contents in that section.

5.1 Domains of use:

The interviews reveal a great deal about contexts for language use. All of the participants, both in Australia and Northern Ireland, reported using only A/ISL when (a) with family, particularly with a spouse, (b) with school friends or people who were educated in an A/ISL school (c) in a religious context or (d) when meeting Deaf people from Ireland. All participants report a preference for using Auslan/BSL over AISL/ISL. To enable quotes to be read in context, each of them correspond to a paragraph number in the transcripts in Appendix 1:

> SM1. (Quote 1, paragaph 15) When I left school I stopped using AISL and only used it with my parents, or in church or with visitors who could use AISL. If anyone uses AISL with me I will be happy to use it with them and other people can puzzle over what we are talking about!

5.1.1 Partners

Only SM3 and SF3 had married AISL users but other participants reported that their partners had learned some AISL:

> SF1 (Quote 2, paragraph 82) I mostly use Auslan now but if am stuck I use AISL. My husband understands AISL but I don't really think about it, it comes naturally.

> MF1 (Quote 3, paragraph 115) My husband can sign in AISL and loves using the language and fingerspelling. When we are with friends in [names holiday location] he uses AISL and I keep telling him to use Auslan because other

people cannot understand AISL and they ask us what the signs mean and what we are talking about but he continues to persist in using AISL to me. I use Auslan at home with my family, with my (Deaf) son, daughter in law and their children who are hearing.

MF1 is the only participant with a spouse who, after learning AISL in order to communicate with her family, used it as a preferred language. All of the interviewees reported using AISL when with school friends:

> MM1 (Quote 4, paragraph 68) I mostly use Auslan now, but when I am with my school friends [names AISL people] I also use AISL. I have been to Ireland and used AISL there. I am more comfortable using AISL.

Several of the participants passed on the language to their hearing children who became bilingual in AISL and Auslan:

> SF3 (Quote 5, paragraph 111) All my children are hearing and they use AISL, but when they meet with other Deaf people they have to use Auslan.

> SF2 (Quote 6, paragraph 100) When my daughter wanted a private conversation [with SF2] she would fingerspell in AISL as my husband and son could not read AISL fingerspelling.

5.1.2 Friends

All of the interviewees indicated that they used AISL when talking to school friends:

> MF1 (Quote 7, paragraph 121) My friends [names friends] and I use AISL when we meet, there are just the four of us. It is good that the language is still alive and I can use it.

MF3 (Quote 8, paragraph 131) I love using AISL but I have less opportunity to use it, mainly in private conversation and not as part of a community. There are a lot more people who use AISL in Sydney.

The use of ISL with friends was echoed in Belfast:

BM2 (Quote 9, paragraph 147) My wife is Deaf and from a Deaf family and we use BSL – I only use ISL when I am with my old school friends. When I travel to Dublin I meet my friends and I use ISL with them.

5.1.3 Religion

Apart from talking with school friends, religion came up as an important area in which AISL is used, although MM1 regretted that it was used less often in the present time:

MM1 (Quote 10, paragraph 59) It was the main language for the community for so many years but the priests use Auslan and AISL is disappearing. AISL is dying – I am disappointed. People [names of AISL signers] have their own circle of users but in the community, use Auslan.

Most participants were able to recite the Lord's Prayer and the Hail Mary perfectly in A/ISL, indicating that because religion has always played a significant role in this language community, attrition is less evident in frozen texts than in other contexts (Crystal, 2002). Participant MF2 was not able to recite these prayers, but she was interviewed on her own; all of the Sydney participants, interviewed together, were able to recite the prayers in A/ISL, although they occasionally prompted one another.

MF2 (Quote 11, paragraph 119) I use AISL when I say the Lord's Prayer but when I see it in Auslan I cannot follow it – I feel mixed up as it is my habit to pray in AISL. (recites Lord's Prayer and Hail Mary).

SM1 (Quote 12, paragraph 4) I feel when I want to think about things or talk about my family, as I miss my parents, I think in AISL; or when I want to pray, I use the signs that my parents taught me, and I still think in AISL. I use the vocabulary from AISL when I pray.

5.1.4 Deaf families:

Adam et al. (2011) report on the small number of Deaf families in the AISL community – very few AISL Deaf people had Deaf children:

SM1 (Quote 13, paragraph 14) I think in my school we were the only boys in the school with Deaf parents who used AISL.

SF3 (Quote 14, paragraph 108) Most people had hearing parents but my brother's wife came from a Deaf family [names AISL Deaf family]. There are really two Deaf families in the AISL Deaf community – the [names SM1's family] family and the [names a Deaf Sydney family] family.

5.1.5 Men's and Womens signing

The interviews confirm that the phenomenon of different men's and women's dialects in ISL (Leeson & Grehan, 2004; LeMaster, 2000) is found in AISL as well. Waratah and Portsea were established by the Dominican Sisters who came from St Mary's Cabra in Dublin, and St Gabriel's was established by the Christian Brothers who came from St Joseph's Cabra, and so the differences between the two dialects were maintained in Australia with the establishment of the schools. The differences may have even been more marked as there was a greater geographical distance between the schools than in Ireland – the girls' school and the boys' school were next door to each other in the same

suburb of Cabra, Dublin but in Australia (as can be seen in Figures 3.8 and 3.9, the girls' school and the boys' school were a considerable distance from each other). Participant SM1 indicated a tension between the men's and women's dialects:

> SM1 (Quote 15, paragraph 8) My parents at the dinner table used to argue about which sign was correct, because the Brothers and the nuns taught using different signs. My mother had stronger opinions and used to criticise my father's signing, as she felt her dialect was more beautiful. I think women are more dominant in the AISL community; they met more to do things together such as sewing. My father was a little more influenced by Auslan and did actually fingerspell in Auslan. The women tended to keep their signs.

Other participants tried to compare the two dialects:

> MM1 (Quote 84, paragraph 36) St Gabriel's was AISL but more Cabra, and the signs used were more grammatical and had English influence, more so than the signs at Waratah [gives examples, one in AISL without English markers and another in AISL with English markers]. Brother Allen and another Brother who came to Australia in the 1920s from Ireland to establish the school brought the St Gabriel's variety of AISL. Waratah signing seemed to have its own variety, diverging from its ISL origins, but the St Gabriel's variety stayed closer to its Irish origins until around the 1950s when it changed to an uniquely Australian dialect, although the fingerspelling alphabet remained the same [gives examples].

> MM1 (Quote 17, paragraph 47) The signs used in St Gabriels and Waratah were different. In AISL fingerspelling, the letters 'S' and 'T' differed between the two schools, even though they were not geographically far from each other, and at St

Gabriels they tended to keep the Cabra variety while there was more change in the Waratah variety.

There was some disagreement about which of the two dialects was dominant. SM1 reported that the women's dialect was more used than the men's dialect but the others indicated that the men's dialect was dominant, confirming LeMaster's (2000) findings. Interestingly, none of the men discuss the primacy of men's or women's dialects apart from SM1, who grew up in the AISL community and learnt to sign from his Deaf mother. SF2 commented negatively on the men's dialect when discussing which dialect would be used in conversation with men:

SF2 (Quote 19, paragraph 92) I think St Gabriel's signs look ugly. When men and women are together, they tend to follow St Gabriel's signs. My husband went to Darlington. But when I sign with St Gabriel's boys, I sign my way, and not theirs, and if I don't understand I can always ask what they mean and show them the Waratah sign.

The Belfast interviews reveal views of the two dialects of ISL, their differences and similarities, and above all, the tension between the two dialects with respect to primacy within the community as a whole:

BM1 (Quote 20, paragraph 141) Men and women sign differently because they went to different schools. Women use less fingerspelling. I would meet them at the Deaf Club and we would still be able to have a conversation.

BM2 (Quote 21, paragraph 151) Men and women sign differently in ISL but not in BSL – it is very obvious. Signs for colours, numbers, days of the week are different. An American has come to research this as it is unusual for men and women to sign differently. When women meet men they usually adapt to the

men's dialect. I think it is sad – why change? They could preserve their way of

signing.

Grehan (2008) has examined the female and male variants of ISL, and reported that the

male variant had the higher prestige, having been used in the boys' school up to the

1950s, while the female variant was discontinued in the girls' school in the 1940s when

an oralist philosophy was adopted.

5.2 Education:

5.2.1 Deaf teachers:

In any Deaf school, Deaf teachers have an important role in the transmission of

language and culture, from Deaf generation to Deaf generation. (Ladd, 2003):

> SF2 (Quote 22, paragraph 94) I loved talking to the older Deaf staff at Waratah
>
> – I thought they knew everything.

It appears from the interviews that there were many more Deaf women who taught in

AISL at Waratah than men at St Gabriel's. This led to a strong appreciation of Deaf

teachers, and subsequently a strong Deaf identity.

> SF2 (Quote 23, paragraph 86) I feel that having a Deaf teacher is better. Deaf
>
> always understand and feel comfortable with each other but I thank God for the
>
> nuns who taught us sign language and not orally only.

Chapter 3 described how Sr Mary Gabriel Hogan, a Deaf nun, came to Australia to

establish the Waratah school, and this tradition seems to have continued:

> SM1 (Quote 24, paragraph 9) During the wartime there were teachers who were
>
> Deaf who taught at Waratah who were positive role models for the Deaf girls.
>
> [she signs the name signs of four Deaf teachers]. Esther Hutchinson was a
>
> classroom teacher who taught reading and writing and Agnes Lynch taught
>
> sewing. There were others [proffers name signs but can't remember English

names]. There was another woman from earlier on who taught in the 1920s[11].
There were no Deaf teachers at the boys' school on the other hand, and there
was no Deaf teacher who came from Ireland to establish the school, unlike Sr
Mary Gabriel Hogan who established the girls school. This resulted in a legacy
where the womens dialect was stronger than that of the men's.

Other Deaf teachers who taught at Waratah also had an impact on the pupils:

> SF1 (Quote 25, paragraph 73) Agnes Lynch was the best teacher I had because I
> learnt quickly from her. Afterwards I had a hearing teacher but it was a bit
> slower with more repetitions before I understood. I am disappointed and sad that
> I was not taught more by Deaf people.

The same names come up in other interviews:

> MF1 (Quote 26, 114) I was taught by the Domincian Sisters and I was educated
> in sign language – and had Deaf teachers – Agnes Lynch, Sarah Page and Esther
> Hutchinson who were very good teachers. [shows name signs]. Sarah taught the
> children and I remember her very well.

> It is not clear whether there were as many Deaf teachers at the boys' school.

SM3 remembered Mervyn Carrroll, who was a Deaf teacher. The greater presence of
Deaf language models in the girls' school may be the reason that the women's dialect
was perceived by some of the participants as stronger than the men's, in contrast to
Grehan (2008) who found that the men's dialect in ISL had a greater prestige.

The situation in relation to Deaf teachers was similar in Dublin although there
were changes, probably related to the introduction of oral education at the school:

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[11] historical records suggest this person may be Marianne Hanney

BM1 (Quote 27, paragraph 136) All the brothers were hearing but there were some Deaf lay teachers. When I finished school there were more hearing teachers and less Deaf teachers.

5.2.2 Oral Education:

Although the use of AISL was discontinued in Catholic schools in Australia in the 1950s when the Catholic schools adopted the oral education method, it is interesting that only very few participants mentioned this in the interviews. Participant MM2 reported disagreements between two teachers at St Gabriel's about oral education when AISL was discontinued at the school:

SM2 (Quote 28, paragraph 24) Brother McBride and Brother O'Neill quarrelled over whether sign language should be used or not, and Brother McBride left the school and went to teach at another school.

Oral education was then enforced and the use of AISL or any other form of signing was banned in the school. Even though the Brothers were fluent in AISL, they stopped using it with the boys and began to punish the boys for using AISL:

SM1 (Quote 29, paragraph 17) The school was an oral school but the Brothers knew AISL from before it was banned. Teachers would catch the boys using AISL and punish them if caught by banning them from watching a film or not allowing food.

The Brothers thus stopped using AISL as language of instruction, reducing over the long term the number of domains of use and introducing a negative reinforcement for using the language which had hitherto been learned as a natural first language:

MM2 (Quote 30, paragraph 70) I feel sad about oral education and later cued speech – they have destroyed AISL.

92

5.3 Attitude to AISL as a minority sign language:

ISL and AISL have the distinction of being minority sign languages in a Deaf community where there are two sign languages. Both Australia and Northern Ireland had a dialect of BSL and a dialect of ISL in the community. This was the sociolinguistic aspect that stimulated the most discussion in the interviews – the attitudes of other Deaf people from outside the AISL community to this minority language community. Some participants were confident in using A/ISL[12]:

SF1 (Quote 31, paragraph 83) I don't feel embarrassed to use AISL in the Deaf community.

Others felt that A/ISL should not be used in public and, since the AISL community is mostly bilingual, they preferred to switch to the majority language in public settings:

MF3 (Quote 32, paragraph 133) If I want to have a private conversation in AISL it is better to do it in another room from other Auslan signers as they don't like people having private conversations in a different sign language. So the language I use depends on who I am talking to. It is easy for me to switch between the two languages.

There were others who expressed a sense of discomfort, even embarrassment about signing in AISL in the Auslan-using Deaf community:

SM1 (Quote 33, paragraph 12) In [names Deaf Club] Deaf Club, for example, I can't use AISL because everyone else doesn't know AISL, and I am the only user. On the other hand when I visited the Catholic Deaf Club I could use AISL. The Catholic Deaf Club was a safer place to use AISL as it would have been met

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[12] A/ISL is used when both varieties: Irish Sign Language and Australian Irish Sign Language are referred to.

with disapproval in the other Deaf Club. I remember when I was younger I used to go to two different Deaf Clubs, the Catholic club in Castlereagh Street, and the Protestant Deaf Club in Elizabeth Street. Both would be open on a Friday night. I remember my parents going to Elizabeth Street and I remember other Deaf people talking about me as 'that Catholic couple's son' when referring to me and I never felt comfortable about that. I used Auslan in the Protestant Deaf Club and AISL in the Catholic Deaf Club. I think that is interesting.

SM2 (Quote 34, paragraph 29) When I first went to the Deaf Club I was told by other Deaf people that my signing was wrong.

Auslan signers have criticised AISL signers for not using Auslan in the Deaf Club:

MM1 (Quote 35, paragraph 44) I was once told off in Jolimont when I taken there by [names a deceased Auslan user]. At that time my fingerspelling was not very good. Mr Reynolds the Welfare Superintendent asked me in Auslan fingerspelling if I was a Victorian [a resident in the State of Victoria], and my friend said I couldn't read Auslan fingerspelling so Mr Reynolds asked his question again in AISL. He then announced me to the crowd in the Deaf Club. I then saw my friends [names two AISL signers] and in my excitement I used AISL to greet them. An older woman who was in the Deaf Ladies Auxiliary [names deceased Auslan signers but is not sure] came and told me off and said I was not allowed to use AISL in the Deaf Club, and this was in front of a lot of people. I felt really put down. My AISL friends and I went to another place in the hall and we had a talk about whether it was OK to use AISL or Auslan. But I felt that if it was OK for people to be bilingual, speak to their children in Greek and other people in English, then it should be OK for Deaf people to use

94

different sign languages. I just had to remember that I was not allowed to use AISL in Jolimont. I will never forget this experience. However that experience made me all the more determined, I would use AISL when I met with people from Waratah and St Gabriels, and when I met with my friend [names deceased AISL user] I always used AISL with them. We had a protocol in that if we were talking in AISL and an Auslan Deaf person came to join the conversation, we would change to Auslan. I felt uncomfortable with using AISL with Auslan Deaf people around but there were times when I got away with it.

More than one of the participants reported a sense of suspicion from Auslan signers and had even being accused of 'spying' on Auslan signers when they used AISL:

MM1 (Quote 36, paragraph 56) Deaf people would not accept that I was bilingual and I was abused several times by Protestant Deaf people, and accused of 'spying'. This radicalised my attitude to AISL, and I use whatever language that people are comfortable with, and whenever a non-AISL user joins the conversation, we change languages.

MM2 (Quote 37, paragraph 69) I have been told off for using AISL – I have been called a spy. I am now used to it and I just use AISL whenever I want to – people seem to accept this. I can spot a fellow AISL user by their signing [even when they are signing Auslan].

MF1 (Quote 38, paragraph 117) It took me a long time to learn how to fingerspell in Auslan. After I left school I had a bad time because I went to the Deaf Club and I saw a friend who I spoke with in AISL and another Deaf person thought I was spying on them and told me I should not use AISL and that I should learn to use Auslan. This was in Melbourne. So I practised

fingerspelling. It took me two years before I felt proficient enough – it was very

hard, not easy for us.

SF2 (Quote 39, paragraph 95) Some people think it is rude to use AISL, some

people think we are spying on them or talking about them, but I don't feel

embarrassed.

SF2 (Quote 40, paragraph 99) When Waratah girls and St Gabriels boys get

together I use AISL but if the other people don't know AISL I use Auslan.

Otherwise they will think I am spying on them or talking about them. I don't use

AISL but I am not embarrassed to use it. I am proud of AISL.

Participant SF1 refers to similar experiences. Although she does not use the word

'spying', she considers the power balance between AISL and Auslan:

SF1 (Quote 41, paragraph 78) When I left school I went to 5 Elizabeth Street

where they used Auslan and I had to ask people what they were saying. I went

with my school friends and we would have secret conversations but with the

others we would use Auslan. Some people asked me to use Auslan and not AISL

but I do think – why don't they learn my language? – I learn your language and

you learn my language.

Some interviewees reported acquiring internalised negative feelings about using AISL

from other fellow AISL signers:

MM1 (Quote 42, paragraph 42) I have tried to use AISL to some people who I

went to school with [Portsea] but sometimes I have been rebuffed – I was

stunned but I think they feel they don't want to be seen as a part of a different

language group, or they associate using AISL with being children. I think AISL

is a language in its own right. I notice that my peers feel uncomfortable when I

use AISL, but with older people such as [names a married AISL couple], they

were fine about it. I notice that people who went to Waratah and St Gabriels are also fine about using AISL, but my peers [names names] are a little mixed up about how they feel about using AISL. Sometimes when I use AISL, I receive Auslan in reply with these peers.

SF2 recounts a narrative in which she was asked to show the AISL sign for MILK, which seems to have been met with hilarity by Auslan signers:

> SF2 (Quote 43, paragraph 90) When I heard there was a Protestant Deaf Club, I walked there as it was not far, and found that a different sign language was used there, which I did not understand. I practised Auslan but I still could not read back fingerspelling and they would tease me. I remember I would be asked again and again for the sign for milk. I would sign it to them innocently and they would laugh at me.
>
> It was not until I learnt about the facts of life that I understood why it was so funny – I was young and assertive and I was mad! Later when I was asked, I would show them the Auslan sign and I would be asked again for the AISL sign and I would say I had forgotten. But I loved going to the Protestant Deaf Club; it was more mixed, whereas the Catholic Deaf Club was different.

Most of the participants are happy to switch to Auslan if there are people present who do not understand AISL:

> SF2 (Quote 44, paragraph 102) I don't like to hurt or ignore people so I am happy to use Auslan as I think it is fair to everyone.
>
> SF3 (Quote 45, paragraph 112) When I am with AISL friends I use AISL but in the Deaf Club I use Auslan. Most of the time I use Auslan. If I am around Deaf people who use Auslan I would feel a bit embarrassed to use AISL.

The use of AISL appears to be more readily tolerated now, although Auslan is still preferred because it is the dominant sign language.

> MF1 (Quote 46, paragraph 122) It is better not to use AISL in the Deaf Club. People think that you are talking about them. Although nowadays people are more accepting, it is still better not to use it. It is nicer to use Auslan [so that everyone can understand each other). In times past I remember people commenting on Catholicism and not eating meat on Friday, 'those Roman Catholics' and I had to put up with it and ignore it but it seems better now and people are interested in who you are – I am pleased to see this.

This oppression was not experienced by participant MF2 as she already knew Auslan when she learnt AISL and so she did not suffer bullying and suspicion from Auslan signers in the Deaf Club. SF3's experiences are similar:

> MF2 (Quote 47, paragraph 128) I don't feel there are any situations where I shouldn't use AISL but I enjoy using it with my friends who can use AISL. I can't remember any situations where I shouldn't have used AISL because I already knew Auslan when I learnt AISL and was never in a situation where I was told not to use AISL. I did learn new Auslan signs from other Deaf people.

A similar attitude not to exclude anyone is present in Belfast:

> BM1 (Quote 48, paragraph 144) I use ISL if everyone presents agrees to use ISL, and it is OK. I am not really bothered if BSL users don't approve, we are all just Deaf. It was OK to use ISL in the Protestant Deaf Club.

> BM1 (Quote 49, paragraph 145) If we start a conversation in ISL and someone joins us who does not use ISL and cannot understand us, we [shouldn't change as] really we were talking first. However if there is a group of people with

different sign languages, I tend to use the sign language everyone can understand.

The final word on language attitude comes from BM2, who discusses misperceptions of ISL and BSL. Perhaps surprisingly, it appears that there is a weaker relationship between language and religion in Northern Ireland than in Australia. BM2 says:

> BM2 (Quote 50, paragraph 153) I never felt uncomfortable about using ISL in the community. People always think ISL is a Catholic language and BSL is a Protestant language – I want to draw their attention to the fact that this is wrong! They need a slap in the face. It is not a religious thing. It relates to where they live. We even have Protestants who live in the south; It is not linked to religion. We talk about signs but now BSL and ISL have become political. I have always felt comfortable about using ISL and I am proud I can use both as well as English.

5.3.1 Feeling of ownership of ISL/AISL:

All participants indicated a sense of pride in having AISL as a first or second language.

> SM1 (Quote 51, paragraph 11) I am proud I can use AISL; it is a beautiful language, but I am disappointed it is used less and less. I use it with my brother but it won't be passed on the next generation. I will keep it and I hope I can record it for posterity by signing whatever signs I can remember on videotape. Then it can be archived for the record so that future generations can see what language was used.

People who live in the same geographical Deaf community and have not learnt to understand AISL are seen as lazy:

MM1 (Quote 52, paragraph 60) Auslan signers are lazy, those who went to VSDC [names Auslan signers] are lazy as they don't understand AISL. People have gone to study in the USA and learnt ASL but never bothered to learn AISL. I believe if a reunion was held some people would come to rediscover their heritage. Cabra is still there. Australians are too laid back and too lazy to learn another language.

This pride and a feeling of ownership is seen in Belfast also where it is combined with a feeling of ownership of BSL as well:

BM2 (Quote 53, paragraph 152) I still have ISL; it will never disappear but I never use it. When an ISL user comes here, I try and use ISL but they can see that I have both ISL and BSL. I don't use ISL very often now; it is a big loss to me and I miss it a lot. I wish my BSL friends would go and learn ISL. There are no longer classes in ISL in the community nowadays. They have gone and I don't know why.

BM2 (Quote 54, paragraph 156) I have signed all my life. Both BSL and ISL are wonderful languages. I hope and pray that my language will continue and not disappear.

5.4 AISL and ISL:

A number of participants reported on the relationship between AISL and ISL, mentioning that AISL and ISL had diverged, indicating that diachronic change in both languages has taken place:

SM1 (Quote 55, paragraph 18) I think AISL has changed from ISL. I have to ask them what they mean as I think the language has changed. I have a book on ISL at home which I asked a friend who went to Ireland to get for me, which I used

to compare between the two sign languages – I can see a difference. I think the sign language here is more influenced by the teachers.

Participants SF1, MM1 and MF2 reported travelling overseas and meeting Deaf people from Ireland and not having much difficulty in communicating with them using ISL, leading to the belief that AISL and ISL have not diverged sufficiently to be considered different languages. This is not unexpected, because ISL only arrived in Australia in 1875.

Some participants noted that if AISL disappeared altogether in Australia, there was still ISL in Ireland:

MM1 (Quote 56, paragraph 46) The future of ISL is strong although it is sad that the signs from Portsea, Waratah and St Gabriels are disappearing. But there are still memories of these signs, while the language lives on in Ireland.

MF1 (Quote 57, paragraph 120) It is sad to see that the language is decreasing in use, because of the closure of the school but I know that the language is alive and well in Ireland.

5.4.1 Learning AISL

Section 4.1.1 summarises the language backgrounds of the participants, most of whom were educated in AISL or ISL for some or all of their education and most of whom had learnt AISL as a first language:

SM2 (Quote 58, paragraph 28) I started school when I was 5 or 6 years old and I learnt AISL. I left school at 16 years old.

SF1 (Quote 59, paragraph 72) I went to school when I was 5 years old. I don't remember knowing whether I was Deaf or not but I started signing when I started school. I had a Deaf teacher and she signed to me.

MF1 (Quote 60, paragraph 113) My name is [gives name] nee [gives maiden name]. When I was 5 years old I first learnt AISL when I went to school at Waratah near Newcastle.

MM1 (Quote 61, paragraph 54) I am more comfortable with AISL. I started school in 1948 and AISL was my first sign language.

BM2 (Quote 62, paragraph 146) I learnt ISL in Dublin when I went to school at the age of 7.

A small minority learnt AISL as an L2 but went to a AISL school from a relatively early age:

MM2 (Quote 63, paragraph 62) When I left VSDC to go to St Gabriels I had to learn a new sign language and fingerspelling system, but I was able to ask other boys what the different signs meant. I was 11 years old and I was able to ask some of the younger boys as young as 8 years old what the signs meant – they seemed to know the grammatical words that were signed in that variety of AISL.

SF3 (Quote 64, paragraph 103) I started school at Darlington at 4 years of age and when I was 10 years old I was moved to Waratah where I had to learn a new sign language.

All participants reported being bilingual in two sign languages, unlike people who only know Auslan. SF1, SF2 and MM2 comment on this:

MM1 (Quote 65, paragraph 55) AISL people are bilingual, more so than Protestant people. In the Catholic club people would use AISL and then go into the Protestant Deaf Club and use Auslan.

5.4.2 Learning Auslan/BSL:

As can be seen in section 4.1.1, even though all participants were educated in AISL at some point in their schooling, not all had the same experience of learning Auslan. A small number of participants learnt Auslan as a L1, but most learnt AISL as a L1 and learnt Auslan later as a L2. The only native signer of AISL reported that:

> SM1 (Quote 66, paragraph 1) My parents' first language was AISL and there was a Deaf couple who lived in the next town. Because they went to school at Darlington they used Auslan. I was 7-8 years old when I learnt Auslan.

SM1 did not see an Auslan signing Deaf person until he was about 7 years old, and for a native signer in Australia where Auslan is the dominant sign language, that is very unusual. Some interviewees went to the state school for Deaf children before going on to a Catholic school (Darlington in Sydney and VSDC in Melbourne) and so they learnt Auslan earlier than those who went to Waratah, Portsea or St Gabriels first:

> MF2 (Quote 67, paragraph 126) I feel I prefer Auslan fingerspelling as it is my first language. I learnt Auslan as my first language and I do feel more relaxed in Auslan. I started Auslan when I was 6 when I went to VSDC and then I went to Portsea when I was 8.

> SF3 (Quote 68, paragraph 104) I started school at Darlington at 4 years of age and when I was 10 years old I was moved to Waratah where I had to learn a new sign language.

On the other hand, participants who had AISL as their L1 found Auslan fingerspelling a challenge:

> SF3 (Quote 69, paragraph 110) I like AISL – I find it easier to use, although Auslan fingerspelling is a little hard to use. Some people are too fast. [names Auslan user] is too fast. I can't keep up.

> SM1 (Quote 70, paragraph 6) I prefer to fingerspell in AISL than in Auslan.

It is also interesting that changing Deaf schools entailed learning a whole new and different sign language, with the L1 still preferred over the L2. Other participants did not learn Auslan at school and only did so when they started going to the Protestant Deaf Club (usually based at the Deaf Society):

> SM2 (Quote 71, paragraph 33) I moved to Sydney when I left school and went to the Deaf Club in Elizabeth Street when I was 20 and learnt a new sign language.

> MM1 (Quote 72, paragraph 39) When I first went to the Deaf Club in Jolimont, I started using Auslan and that is when I first learnt the two-handed alphabet, and I had to learn to read back from the fingerspelling.

Participant BM2, who moved from Dublin to a school in, had a similar experience in learning BSL:

> M2 (Quote 73, paragraph 149) I learnt BSL when I came to school in the north. I had to learn BSL or people would not understand me. I think I was the only ISL user in my school at Jordanstown. The next time I met ISL users was during sports. I met friends who I went to the same school with at St Joseph's and then I would change language.

Participant BM1 had a similar experience to most of the AISL signers, learning BSL after he finished school:

> M1 (Quote 74, paragraph 138) When I finished school there were a number of Deaf Clubs but I knew of the Catholic Deaf Club on Falls Road which has now closed down. When I first went there I had to ask people what they were saying and what the signs meant, even those who went to the same school as I did. Every year there was a sports competition with Deaf people from Dublin and there were many people from the same age group. I always had to ask other

people what they were saying. I was 17-18 then. I found fingerspelling difficult but I eventually learnt the language.

5.4.3 Linguistic interference and accent:

Each participant was asked whether other members of the Deaf community (i.e. Auslan and BSL signers) perceived them to sign like an AISL/ISL signer. Without describing what he means, participant MM1 declares that he has an accent:

MM1 (Quote 75, paragraph 40) I do believe I have an accent in AISL.

Interestingly, the only native AISL user commented that:

SM1 (Quote 76, paragraph 5) I am not sure if people think I have an AISL accent.

Other participants refer to linguistic interference where items from AISL may appear in Auslan:

MF1 (Quote 77, paragraph 118) I think I have an accent, I cannot think of any specific examples but I sometimes slip and use an AISL sign in an Auslan conversation.

These reports will be examined further in Chapter 8 when the code-switching data is discussed. Another participant reports that other AISL named signers include AISL signs in their Auslan signing, and in the religious domain, only use AISL:

MF2 (Quote 78, paragraph 128) I don't feel I have an AISL accent but I do know that my AISL friends have a strong accent. [names names] have a strong influence from AISL and cannot change. When they do readings in Mass they follow AISL and don't really use Auslan signs.

This view is echoed in Belfast where participant BM2 states that:

BM2 (Quote 79, paragraph 150) I think I have an ISL accent; people think I look different when I sign BSL, sometimes I mix them up but it is better to know

when to use ISL and when to use BSL. When I go to meetings in the Republic of Ireland BSL people look to me as they know I know both languages and can translate.

5.4.4 Name signs:

Name signs function as proper names. They may be arbitrary or descriptive, relating to the person's physical characteristics, or tendencies. Supalla (1992) and Sutton-Spence and Woll (1999) describe name signs and how their use differs from sign language to sign language. Leeson and Saeed (2012) discuss additional types of name signs found in the Irish Deaf community, not mentioned by Supalla or Sutton-Spence and Woll, including those where the initials of the first name and surname are produced simultaneously with one letter from the ISL manual alphabet on each hand and simultaneous mouthing of the English name, and others which use the initial of the first name with a repeated movement. The participants in this study report on the existence of name signs at both Waratah and St Gabriel's, including the types described by Leeson and Saeed (2012).

> MM1 (Quote 80, paragraph 49) Name signs at St Gabriels used both hands, one for each initial [gives examples). At Waratah, name signs tended to relate to the person more and their English name or characteristics such as JO for Joy or JU for Julie or a letter signed in a particular place such as M (on the opposite hip) for Maureen, but there were some two-handed name signs. If a pupil grew up with a particular name sign, a similar name sign was never used until after that person left school.

Name signs were not only confined to Deaf pupils: name signs of the nuns and lay teachers were mentioned in the interviews as well.

MM1 (Quote 81, paragraph 50) The nuns' name signs tended to be the initials or some of the letters of their name e.g. LW for Sister Lawrence Mary, MW for Sister Mary Matthew, NE for Sr Madeleine.

MF1 (Quote 82, paragraph 10) Esther Hutchinson [name sign] was a classroom teacher who taught reading and writing and Agnes Lynch [name sign] taught sewing.

5.4.5 Influence of English:

One of the interviewees referred to the influence of English on AISL:

MF2 (Quote 83, paragraph 127) The AISL I use has a strong influence from English.

As sign languages come into contact with spoken languages (Cokely, 1983; Fischer, 1978; Stokoe, 1969; Woodward, 1973b) borrowing can take place from the majority spoken/written language into the sign language. However, both the interviews and the AISL dictionary *How to Converse with the Deaf in Sign Language* (Dominican Nuns, 1942) indicate that there were also some English grammatical markers used (some of which also appeared in the *Dictionary of Australasian Signs* (Jeanes & Reynolds, 1982). There is a list of English prefixes and word endings to be used in combination with signs, which the participants from St Gabriel's and Waratah referred to in the interviews:

MM1 (Quote 84, paragraph 36) St Gabriel's was AISL but more Cabra, and the signs used were more grammatical and had English influence, more so than the signs at Waratah (gives examples, one in AISL without English markers and another in AISL with English markers).

MM1 (Quote 92, paragraph 48) I feel that Brother McBride used a lot of nouns, verbs and adjectives [sign forms which were English morphology markers] in

his AISL whereas at Waratah it seemed to be a more natural sign language. Many old boys of St Gabriel had excellent written English skills. Fingerspelling and signing combined to give people an excellent level of English skills. With the advent of oralism, this deteriorated, as it did with the girls at Waratah.

Participant MM1 goes on to discuss the benefits of learning AISL as a L2, not only for language development but also to develop skill in communicating with people around the world:

MM1 (Quote 85, paragraph 41) I think it is very important for Auslan Deaf people to learn AISL. It will enable them to be able to communicate with people internationally, mainly because of the one-handed fingerspelling alphabet. The sign vocabulary of AISL is less important because it is really an Irish language although in the north of Ireland they use BSL. I think AISL has given me an understanding of nouns, verbs, adjectives, adverbs and the structure of language which is an amazing thing. (gives examples).

This is an interesting example of metalinguistic awareness, which arises from bilingual competence – a bilingual language experience has led to an ability to discuss some of the characteristics of language.

SF2 (Quote 86, paragraph 93) Waratah had separate signs for LADY and WOMAN, and others such as DIE, DEAD and DEATH (with English tense markers). I feel it was a well-organised language.

One participant even went as far as to compare the two sign languages – Auslan and AISL - saying that Auslan seemed a more natural language:

MF3 (Quote 87, paragraph 132) There is a difference between AISL, which has more influence from English, and Auslan, which is more of a natural sign

language. Auslan can be more comfortable and is more visual but I am more used to AISL, which is my first language.

Auslan is still taught as a language of instruction in Australian schools and there is a growing body of teaching materials and research publications on this language, which has been fed into a community awareness of Auslan as a natural language. Yet MF3 is more comfortable in AISL, which is her first language. MM2, in contrast, says that younger people's signing is more influenced by English. This raises the question of whether this is an issue of fingerspelling, the use of English grammatical marking, English mouthing, or all three:

> MM2 (Quote 88, paragraph 63) I can see that AISL has disappeared and that younger people are more influenced by English.

5.5 Interpreting:

Deaf people have traditionally lived in a collective community, and have undertaken reciprocal sharing of skills (Ladd, 2003) which has not only entailed an exchange of manual skills but also language brokering activities. As reported in Adam et al. (2011), Deaf people from the AISL Deaf community undertook a variety of interpreting tasks, as part of their role as 'ghostwriters' - translators from within the Deaf community. A Deaf person who was interviewed by Adam et al. (2011) reported that as he came from an AISL family, and was fluent in Auslan as a second sign language; he was able to interpret between the two sign languages within and outside of the family. Participant SM1 reported interpreting between AISL and Auslan (Adam et al., 2011):

> SM1 (Quote 89, paragraph 2) I interpreted at family occasions as different people used different sign languages. My parents used AISL, the in-laws and children used Auslan, but as my mother got older she used AISL more.

This highlights the bilingual nature of the AISL Deaf community in that this led to other activities as a language broker. This also came up in the Belfast interviews:

> BM2 (Quote 90, paragraph 148) I also do translation work when in NI. There is not much ISL, and at community meetings if the ISL Deaf people do not understand the BSL I usually stand at the front and translate, or when in a one on one situation I become a relay interpreter between BSL and ISL.

5.6 Language Attrition:

As AISL has not been taught as a language of instruction in schools for Deaf children in Australia since the 1950s (S. Fitzgerald, 1999), and most AISL signers have learned Auslan, it is to be expected that there will be some sort of language attrition in AISL. Most interview participants who discussed everyday use of AISL in comparison with Auslan expressed sadness that they did not use AISL as much as they would have liked. Participant SM1, who was the only native AISL user in the study, reported that despite his native fluency in AISL, he uses Auslan on an everyday basis and only uses AISL when he meets with an ISL signer who lives nearby.

> SM1 (Quote 91, paragraph 3) My use of AISL has reduced and Auslan has taken over in use, which is very sad. I regularly meet [names a Deaf emigrant from Ireland who is a native user of ISL] who lives in [names locality], with whom I refresh my AISL but I wish I could use it more.

5.7 Conclusion

AISL in Australia has been the subject of suppression on a number of fronts. Its use is now restricted to conversations between school friends, family members and spouses. It is no longer used as a language of instruction in Catholic schools, and has not been for many years. AISL is also not now used in the religious domain by hearing priests, who

use Auslan. The use of AISL was actively discouraged in Deaf Clubs with Auslan signers accusing AISL signers of 'spying' and telling them not to use AISL in the Deaf Club. The situation is different in Northern Ireland, where the use of ISL was tolerated by the BSL majority, although it is no longer taught in night classes and there are no interpreters based in Belfast who interpret between English and ISL. These interviews reveal that language attrition (Crystal, 2002; Schmid & Köpke, 2007) and the spectre of language death (Brenzinger & Dimmendaal, 1992) are very much a reality for AISL and for ISL in Northern Ireland.

The sociolinguistics analysis concludes here. In the following chapter we will present the experimental data, which investigates some of the actual processes of code-switching that have already been found in spoken languages.

CHAPTER 6: SWITCHING COST AND COGNATE FACILITATION.

6.0 Introduction:

Code-switching is said to be the most studied language contact phenomenon (Sarah Thomason, 2001). It occurs when a speaker/signer during the course of a single conversation alternates between two or more languages or language varieties (including alternation in vocabulary and grammar). Most researchers use the term code-mixing to refer to language contact phenomena where switches occur within the sentence itself as distinct from code-switching, which is said to occur at sentence boundaries (Grosjean, 1982; Romaine, 1995). The matrix language-frame model has been proposed by Myers-Scotton (1993) in order to explain the patterns of switching found between two languages, with a matrix language (ML), the more dominant language within an interaction, providing most of the linguistic material, and the embedded language (EL) being the other language. These definitions of code mixing and code switching presuppose that the two languages are in the same modality, where elements from both languages cannot be produced at the same time.

There have been experimental studies which have been carried out on bilingual switching between two spoken languages, to investigate the nature of this form of processing. In a typical experiment, subjects are asked to name pictures in one or the other language (depending on a cue given to them, e.g., they may be asked to name in L1 all pictures presented on a yellow background and in L2 those presented on a blue background) in a mixed order. A general finding of these studies is that subjects show a "switching cost", namely they are slower in naming the picture if they have to switch from one language to the other. Meuter and Allport (1999) talk about a 'reactive

inhibitory control' which controlled switching, and that the switching cost is greater when switching from the weaker L2 to the stronger L1. Costa and Santesteban (2004) also found a switch cost, greater from L2 -> L1 and moreover, they also reported that the response time for cognates (words that have similar phonological form in the two languages) was shorter than for non-cognates: a 'cognate facilitation effect'. Christoffels et al. (2007) also found this cognate facilitation effect.

Moving on to sign language, Emmorey et al. (2005) discuss the presence of code-blending in bimodal bilingual interactions where communication takes places between spoken language dominant and sign language dominant signers, and also in communication between native signers who are also fluent in a spoken language. In terms of language production, the types of code-switching and mixing found in ASL-English bilinguals are of great interest to researchers because the two modalities (spoken and signed) allow for the simultaneous production of both languages (Emmorey et al., 2008). In a study of hearing bilinguals designed to elicit language mixing, they found that code-blending (English words spoken with voice at the same time as producing ASL signs) was the predominant form of mixing. They also reported differences between code-blends by hearing bilinguals and code-blends by Deaf people. Emmorey et al. (2008) also found that where ASL was the matrix language, no single-word code blends were produced, although there were more code-blends than code-switches overall – and that code blends contain semantically equivalent information in both languages. They argue that this demonstrates that even when the language production system is not required to output a single lexical representation at the time (because of the use of independent articulators; hands for ASL and mouth/voice for English), two different messages are not produced – in line with the constraint proposed

by Levelt (1989) according to which two concurrent propositions (or messages) cannot be encoded simultaneously.

Bishop and Hicks (2008) also investigated bimodal bilingualism (ASL/English) among adult hearing native signers, finding that their English often showed features that are characteristic of sign languages but not normally found in English, and that they used features of both ASL and English in their interaction with each other, demonstrating their fluent bilingualism and shared cultural and linguistic background.

With reference to the specific methodologies used in research into code-switching in bilinguals, Kleinman and Gollan (2016) point out that the nature of experimental tasks may influence the research findings: by telling bilinguals which language to use on each trial, they may adopt an inefficient 'top-down' processing strategy in which they need to exert control on the switch, in contrast to more naturalistic 'bottom-up' switches where the most accessible word would be used, whether it is in the L1 or the L2. In their work, they not only used a picture naming task, but they also used an alternate switching task in which participants were told to "use whichever language comes to mind first" (Kleinman & Gollan, 2016, p. 11) for each trial without any direct instruction on consistency in response. This resulted in the elimination of switching costs.

The Meuter and Allport (1999), Costa and Santesteban (2004) and Emmorey et al (2008) studies provide the motivation for this study. Because of code blending, Emmorey et al (2008) did not find an overall effect of switching, but explained this by reference to how ASL and English are used: the primary function of code-switching for fluent unimodal bilinguals is not to convey untranslatable lexical items. Where ASL was the Matrix Language (ML) single-word English code-blends were produced, but the majority of code-switches occurred where English was the ML, and were made up

of constituents larger than a single lexical item. This raises the question of whether differences between sign languages and spoken languages might lead to a different type of code switching in sign language unimodal bilingualism from that found in bimodal code-switching.

The present study was designed to assess whether Meuter and Allport's (1999) finding of asymmetrical costs of switching between two spoken languages could be replicated with two sign languages, and whether there was a cognate facilitation effect at work as well with these two sign languages. The method used was picture naming in a language switch task, based on the methodology used by (Costa & Santesteban, 2004) in a study of highly proficient bilinguals and L2 learners of two spoken languages. They reported an asymmetric switching cost in the weaker L2 of highly proficient bilinguals; switching cost was higher in switching to the L1.

It was predicted that (a) there would be an asymmetric switching cost in the weaker L2 of these sign language bilinguals and (b) that there would be a cognate facilitation effect.

6.1 Methods

6.1.1 Participants

Twelve participants (see Table 6.1 for demographic information about the participants) were recruited, all natives of Ireland (either the Republic of Ireland or Northern Ireland). They were all deaf ISL/BSL bilinguals who had been educated with ISL as a L1 in Dublin and who had acquired BSL as an L2. Of the 12 participants, 1 took part in the pilot study; the other 11 participated in the main experiment. Participants in the main experiment had been educated in schools for deaf children in Cabra, Ireland (St Joseph's boys' school or St Mary's girls' school). Recruitment and testing was carried out in three locations: London (2 participants), Belfast (5 participants) and Dublin (4

participants). The London participants were all Irish Deaf people who had migrated to the UK for employment or training opportunities (Leeson, 2005; Stone, 2010). They were recruited through Deaf community networks: usually one participant known to the researcher invited other Deaf people in the same location to take part. An additional bilingual deaf subject (a 59 year old man who lived in Belfast) was recruited to pilot the experiment. All participants had normal vision (see 3.1 for further information on main study participants). It was decided to use a younger pool of participants for the experimental task than for the interview and discussion participants. It was found in the pilot task, that it was not appropriate to administer a task with several hundred time trials to an older person, and the participant in this task abandoned the activity without completing all the trials. The participants in the experimental task were bilingual in Irish Sign Language and British Sign Language, dialects of the same languages that were investigated in the interview and discussions. As outlined earlier in section 4.1.1, ethical approval was given through the Graduate School Ethics Committee of University College London through the Deafness Cognition and Language Research Centre, and informed consent was obtained from each participant.

PARTICIPANT	GENDER	AGE	LOCATION	DEAF FAMILY MEMBERS
1	M	53	London	None
2	M	26	London	Deaf parents and sibling
3	M	37	Belfast	None
4	F	36	Belfast	None
5	M	42	Dublin	None
6	F	47	Dublin	None
7	F	41	Dublin	None
8	M	53	Belfast	None
9	M	36	Belfast	None
10	F	33	Belfast	None
11	M	39	Dublin	Deaf brother
Mean		40.27		

Table 6.1: Demographic information about the participants

Of the 11 participants (7 male): one participant was a native signer, and two had Deaf

family members. All others had learnt ISL at school.

6.1.2 Materials

The materials comprised eighteen pictures, representing lexical signs in both BSL and ISL (Figs. 6.1 and 6.2; see Appendix 3 for a full list). The signs for nine of the pictures were highly similar (cognate signs) in the two languages; the signs for the remaining nine were highly dissimilar ("non-cognate signs"). Signs were considered as cognates if they shared two or more of the three major articulatory parameters (handshape, location, movement).

Figures 6.1a and 6.1b. ISL and BSL signs for MAN (NON-COGNATE)
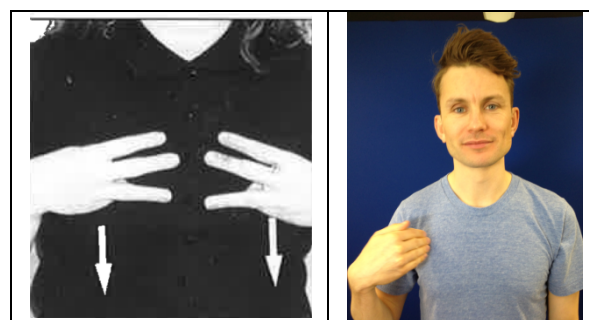
Figures 6.2a and 6.2b. ISL and BSL signs for WOMAN
(initially coded as COGNATE; subsequently reclassified as non-cognate (see below)

Orientation and non-manual features were not considered when deciding whether signs were highly similar – and the signs used in the task did not differ in either language in orientation. For example, the BSL and ISL signs for KISS differ in only one parameter (handshape) and so were classed as highly similar. The signs that were

considered highly similar in ISL and BSL were: BABY, BOOK, BREAD, HOUSE, KISS, TOILET, WINDOW, WOMAN, WORLD, and those that were considered dissimilar in ISL and BSL were: ADDRESS, BUS, WATER, TRAIN, MAN, MILK, PEOPLE, PRIEST, CUP-OF-TEA. However, following the study, it became clear that most participants used different signs for WINDOW and WOMAN than those expected by the experimenter (from his experience of using AISL) and therefore in the statistical analysis the responses for WINDOW and WOMAN are included with the non-cognate group.

The experiment comprised 186 trials with each picture displayed for 2000ms, being made up of 36 initial trials without a switch, each picture appearing twice, followed by 50 trials three times. The decision to use a smaller number of trials than in previous studies using this paradigm (Costa & Santesteban, 2004) was taken after completing a pilot study with a single participant, who found the task with over 400 trials too onerous and gave up. Each picture was associated with naming in L2 and L2 an equal number of times per participants.

6.1.3 Procedure

The stimuli were presented using Microsoft PowerPoint. An Apple MacBook laptop with a 13-inch screen was used to display the stimuli. Each was displayed for 2000ms without an interstimulus pause, with a break after each 50 pictures. Participants were instructed to respond as quickly as possible - in BSL when the picture was red, and in ISL when the picture was blue.

Following the procedure used by Orfanidou et al. (2009), a DV video camera was set up so that it was possible to see both the stimuli on the screen and the signed response from the participant (Figure 6.4). The experiment was video-recorded and exported into digitized Quicktime format using iMovie editing software.

Figure 6.4: Test Set-up

Figure 6.5 illustrates the stimuli presentation:

2000ms

2000ms
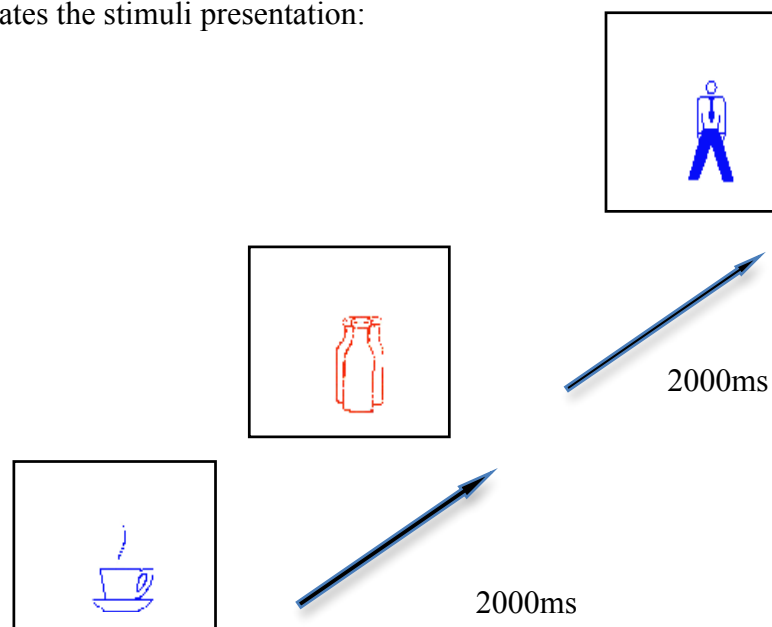
Figure 6.5: Example of stimulus presentation

Before starting, the purpose of the study was explained to participants so that they were

aware they would have to use both BSL and ISL in the experiment. They were told that

there were four parts to the task, that the first part would be in one language only (either

BSL or ISL) and that they were to sign what they saw in the picture as quickly as

possible, as the task was going to be timed. Participants were asked to sign the entire

first trial of 36 items in either BSL or ISL, in order to (1) set a benchmark for stay trials

in one of the two languages (to obtain data for the duration of each sign in ISL and BSL

when there were no switches, and (2) assist them in associating a colour with a sign

language.

On completion of this first part, participants were then told that they would be presented with blue or red pictures, and that they were to associate each colour with one of the two languages, and to remember to sign in the appropriate language when they saw that colour. For example, if they were asked to produce the first part in ISL when they saw all blue pictures, they were asked to respond in BSL for the red pictures; the colours were counterbalanced for participants.

Each experiment included 36 stay trials (i.e. all 18 items twice in randomized order) in the first block to set the baseline measurement for no switching, before the main part with 150 items in randomized order, presented in three blocks of 50, with participants allowed a break after each block.

Participants' responses were videorecorded and exported into digitized Quicktime format using iMovie editing software. The video clips were then transferred to ELAN (Crasborn & Sloetjes, 2008) for coding. The same methods were used for coding response latency as in the Pilot study.

6.2 Coding

The ELAN files were coded for (1) response latency, (2) errors and (3) use of mouthing during trials. Response latencies for each item were calculated from the onset of a picture stimulus to the initial formation of the sign. In the absence of latency measurement software comparable to that for spoken language, for the purpose of this study, response latency was considered to be the time between the onset of the stimulus and initial formation of the sign, defined as meeting one of the criteria below. Although Orfanidou et al (2009; 2010) measured response latencies using DMDX software and timing response as occurring when a key on a computer keyboard was released, it was

decided not to use this technique in this study because the actual release of the key has a time latency of its own and variation in the articulation of a sign in space (i.e. low neutral space or high neutral space) could result in inconsistent latencies for signed responses.

Sign onset time was operationalised as the point at which (a), (b), (c) or (d) was the case:

(a) the handshape(s) were fully formed

(i) internal movements in formation were completed (e.g. index finger and thumb in 'F' handshape make contact)

(ii) orientation matches that of the sign (e.g. orientation in MAN (BSL) was that of the point of contact although the hand had not yet made contact with the chin)

(b) before the hands made contact for a sign (e.g. **WORLD** (ISL) when handshapes were complete)

(c) for a two-handed sign with contact, after the initial movement, when the hands were at their highest or most extreme location (e.g. **HOUSE** (see Figure 6.6) or

(d) for a sign where the hands do not make contact, when the handshape was fully formed, and the elbow movement ended, indicating that the sign was about to start its movement.
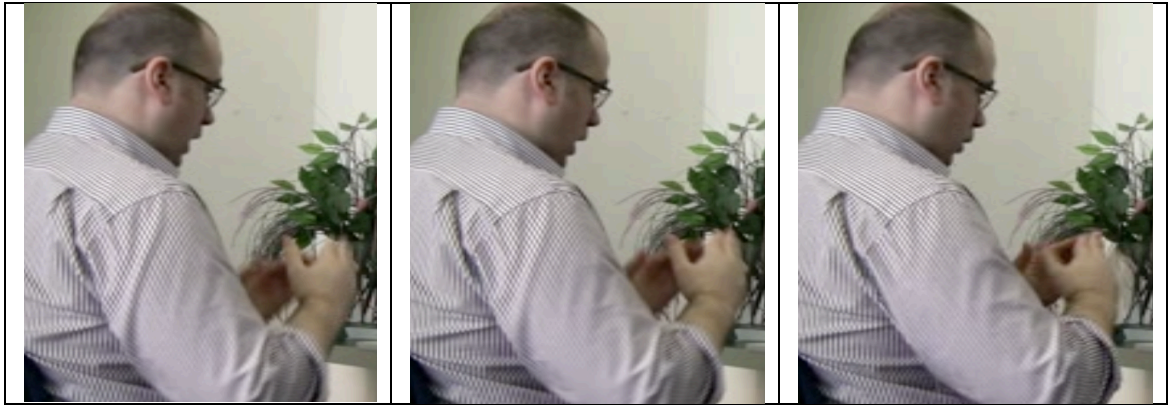
Figure 6.6: Forming the sign for HOUSE.

Example of Criterion (c). The first illustration shows the two hands moving upwards from rest to form the sign HOUSE, the second shows the highest point of the hands before they come down slightly in the third photo where they make contact.

Trials in which participants produced a response in the wrong language or produced an incorrect sign were considered errors. There were no mixed responses in the data. Each response was also coded for whether a mouth action was used, and if so, whether it was an English mouthing or a sign language-specific mouth gesture. Mouthing (Schermer, 1990) and mouth gestures (Boyes-Braem & Sutton-Spence, 2001), as described in Chapter 2, have distinct functions in sign language. Mouth actions were coded as English mouthing when, for example, a participant mouthed the English word *man* while producing either the BSL or ISL sign; mouth actions were coded as a mouth gesture if an action representing 'kissing' accompanied either the BSL or ISL sign KISS.

As mentioned above, when the results were coded, participants used signs for WOMAN and WINDOW that were not highly similar in ISL and BSL, and so the final number of pseudo-cognate signs was 7 and the number of non-cognate signs was 11.

6.3 Results:

Of the 11 participants, 3 were excluded from analyses: one participant in Belfast, who after performing the task, reported having BSL as L1 and ISL as L2; a second

participant in Belfast used spoken English as his dominant language and had lost much of his knowledge of both BSL and ISL signs. A third participant in Belfast (participant 10) only did part of the experiment (the non-switch and the first 50 trials), so was not included in the ANOVA analyses for reaction time.

There were 1838 (95.9%) correct responses and 78 (4.1%) errors. Table 6.2 reports the distribution of responses according to language (switch from ISL to BSL, switch from BSL to ISL, and stay trials in both ISL and BSL) and cognate status.

	COGNATE STATUS	MEAN RT (SD)	ACCURACY
ISLBSL	Non-cognate	1307 (107)	97%
	Cognate	1106 (129)	
ISLSTAY	Non-cognate	1096 (99)	95%
	Cognate	985 (60)	
BSLISL	Non-cognate	1348 (167)	95%
	Cognate	1188 (189)	
BSLSTAY	Non-cognate	1210 (90)	96%
	Cognate	1018 (179)	

Table 6.2: Descriptive Statistics

6.3.1 RT analysis

RT data was analysed using a 2 (trial: stay vs. switch) x 2 (language: ISL vs. BSL) design. Cognate status was not included because the number of items in each condition was unbalanced (7 vs. 11). The main effect of trial was significant, with longer RTs in switch than in stay trials ($F1 (1,9) = 18.779$, p=0.002; $F1 (1,17) = 47.758$, p= 0.00; F2 $(1,17) = 5.170$, p = 0.036). The main effect of language, and the interaction between trial and language were not significant.

Differences between cognate and non-cognates items were assessed using a paired sample t-test by subject. There was a significant difference in the cognate status

of the items: T1 (40) = -6.6 (2 tailed), p < 0.001, indicating a very strong cognate

facilitation effect.

Reaction Times

(chart: Y axis shows reaction time in msec from 400 to 1400; X axis shows four conditions: Stay ISL ≈ 1040, Stay BSL ≈ 1115, BSL - ISL ≈ 1205, ISL - BSL ≈ 1260; legend: RT)
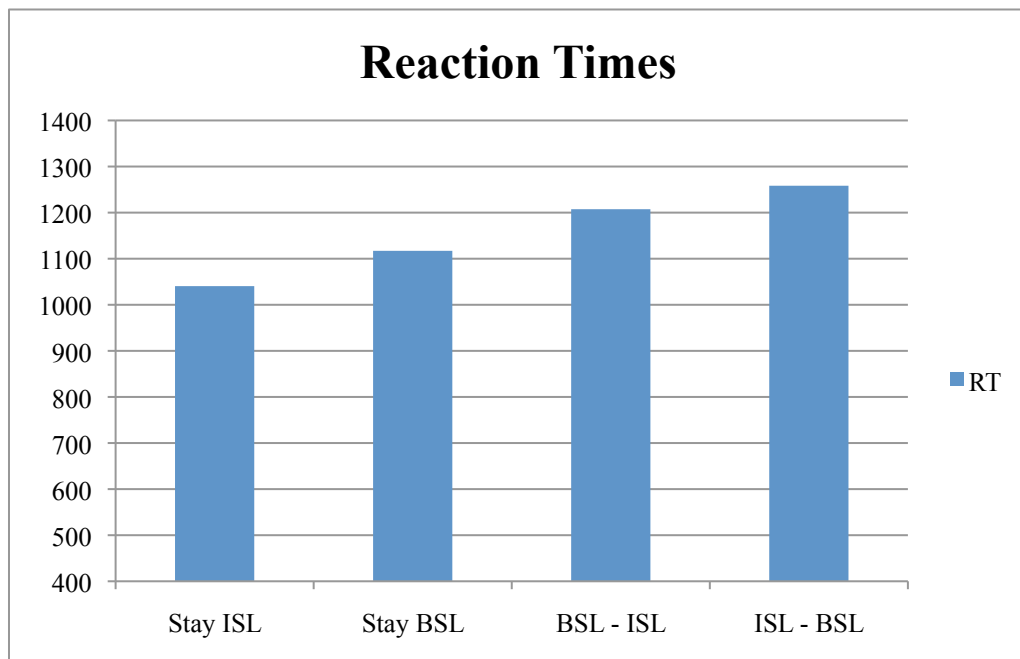
Figure 6.7: Table Response Latencies
(Y axis shows reaction time in msec; X axis shows the four different conditions).
Participants responded more quickly in stay trials than in switch trials.

6.3.1 Error analysis:

Errors made by participants were largely substitution errors (e.g., using the right sign in

the wrong language, or a different sign altogether). Errors comprised:

- where the participant took so long to respond, that the next item had already

  been displayed

- where the participant signed a wrong sign but in the correct target language

  (PEOPLE or GRANDPARENTS instead of KISS, or MAN instead of PRIEST)

124

	COGNATE	NON-COGNATE	TOTAL	ACCURACY
STAY BSL (n=375)	8	7	15	96%
STAY ISL (n-801)	16	23	39	95%
ISL BSL (n=349)	5	5	10	97%
BSL ISL (n=-329)	5	10	15	95%

Table 6.3 Accuracy of each condition

Subject error data was analysed using a 2 (trial: stay vs. switch) x 2 (language: ISL vs. BSL) design. The main effect of trial and language were not significant (F_1 $(1,9)$ = .260, p=0.622; F_2 $(1,9)$ = .462, p = 0.514). The interaction between trial and language was not significant (F_1 $(1,9)$ = .31, p=.441. Item error data was analysed using a 2 (trial: stay vs. switch) x 2 (language: ISL vs. BSL) design. The main effect of trial and language were not significant (F_1 $(1,17)$ = .004, p=0.951 ; F_2 $(1,17)$ = .501, p = 0.489). The interaction between trial and language was not significant (F_1 $(1,17)$ = 3.1, p=.096).

6.3.2 Mouthing:

The number of English mouthings and mouth gestures was calculated for each participant's 186 trials. Most participants produced an English mouthing (a total of 1838 trials) with only 22 occurrences of mouth gestures (see table 6.4).

PARTICIPANT	ENGLISH MOUTHING	BSL MOUTH GESTURE	ISL MOUTH GESTURE	TOTAL
1	186	0	0	0
2	186	0	0	0
3	185	1	0	1
4	186	0	0	0
5	186	0	0	0
6	178	5	3	8
7	178	5	3	8
8	186	0	0	0
9	182	3	1	4
10	185	0	1	1
TOTAL	1838	14	8	22

Table 6.4: Mouthing by subject and language.

BSL stay trials had the lowest incidence of mouthing, followed by switches into ISL. ISL stay trials and switches into BSL had a higher incidence of mouthing. This means that trials either starting or staying with the participants L1 had less mouthing and trials starting with or staying with the participants L2 had a higher incidence of mouthing.

CONDITION	PROPORTION	INCIDENCE
BSLISL	297/302	0.967
ISLBSL	297/304	0.977
STAYBSL	538/558	0.964
STAYISL	501/503	0.996

Table 6.5 English mouthing by condition

The differences in men and womens signing has been remarked upon in the literature (A. Fitzgerald, 2014; LeMaster, 2000) and so mouthing by gender was also investigated. The percentage of responses accompanied by mouthing was calculated by

dividing the number of mouthings by the total number of trials. Differences (although not of a large magnitude) were found between the amount of mouthing found in men's and women's responses:

GENDER	PARTICIPANTS WHO PRODUCED MOUTH GESTURES	TOTAL TOKENS OF MOUTH GESTURES	%
F (n=558 trials)	3	16	2.69%
M (n=1302 trials)	7	6	0.46%

Table 6.6: Mouthing x gender

There were more mouthings accompanying BSL than accompanying ISL but the total numbers (14 BSL mouthings and 8 ISL mouthings in the dataset) were very low.

Subject English mouthing data was analysed using a 2 (trial: stay vs. switch) x 2 (language: ISL vs. BSL) design. The main effect of switch was significant, but not language (F_1 (1,9) = 6.231, p=0.034; F_2 (1,9) = .104, p = 0.755). The interaction between switch and language was not significant (F_1 (1,9) = 3.524, p=.093. Item English mouthing data was analysed using a 2 (trial: stay vs. switch) x 2 (language: ISL vs. BSL) design. The main effect of switch and language were not significant (F_1 (1,16) = .917, p=0.951 ; F_2 (1,16) = 1.094, p = 0.311). The interaction between switch and language was not significant (F_1 (1,16) = .843, p=.372).

6.4 Discussion:

It was predicted that a) there would be an asymmetric switching cost in the weaker L2 of these sign language bilinguals and (b) that would be a cognate facilitation effect.

Figure 6.7 shows that response latencies were longer in switch than stay trials, but no asymmetric switching cost was found. Response latencies for non-cognate signs were found to be longer than for cognate signs in all four conditions: ISL to BSL switches, BSL-ISL switches, ISL stay trials and BSL stay trials. Also, response

latencies for highly dissimilar signs were found to be longer when there is a switch than when there is a stay trial, and the t-test by subject revealed a cognate facilitation effect.

The error analysis showed that there was no significant main effect of language or direction of switch, for both item and subject data The mouthing analysis revealed a significant effect of switch on subject mouthing but no effect of language, and no significant effect of language or switch on items. ISL stay trials, which also had a quicker response time also had the most mouthing.

Christoffels et al (2007) also found a cognate facilitation effect in their study, but the switching cost was equal in both directions. Studies of spoken language unimodal bilingualism have generally reported an asymmetric effect in switching, with a greater cost in switching from L2 to L1 than from L1 to L2. Although the present study found a switching cost between two sign languages, there was not an asymmetric cost. This is in accord with Costa and Santesteban's (2004, p. 504) finding that 'all bilingual speakers showed language switching costs', and that this includes unimodal sign language bilinguals. There was however a cognate facilitation effect for highly similar (pseudo-cognate signs), indicating that signs are retrieved in relation to their underlying phonological structure – for example the signs WORLD in either ISL or BSL were retrieved quicker as distinct from other non-cognate signs, for example PEOPLE.

Error rate also did not differ in relation to direction of switch, and most errors were substitution errors. There were many fewer mouth gestures than English mouthings, but this is probably because only one of the stimulus pictures represented a verb. More mouth gestures were used in BSL than in ISL, indicating that there may be cross-linguistic differences in processing of mouth gestures. Given that Kleinman and Gollan (2016) discuss some of the processing problems present within experimental

tasks of language switching (i.e. top-down and bottom-up processing, it might be worth investigating this further.

6.5 Conclusion

A switching cost, with response latencies longer for trials where there is a switch than for those without a switch was found, but this cost was not asymmetric as predicted.. As with spoken language processing, a cognate facilitation effect was found: the phonology of a sign facilitates retrieval where the two signs for an item are highly similar. These findings from the experimental task raise the question of what code switching actually looks like in unimodal sign bilingualism. What are its characteristics in naturalistic conversation data? Are features found in spoken language unimodal bilingualism found in sign language unimodal bilingualism? These issues are addressed in the next chapter.

CHAPTER 7: MOUTHING AND CODESWITCHING

7.1 Introduction:

This chapter approaches code-switching and code-blending from two perspectives: the first looks at code-blending by examining the use of mouthing in these conversations; the second investigates data on code-switching between pairs of sign languages: AISL/ISL and BSL/Auslan, in conversations between Deaf signers bilingual in the two sign languages discussed in Chapter 5; and then uses this analysis to assess the applicability to the data of two theories about switching phenomena in unimodal bilingualism: one sociolinguistic (Poplack, 1980), and one psycholinguistic, (Green, 1986). A framework on language attrition is also examined (Schmid & Jarvis, 2014; Schmid & Köpke, 2007).

The data were collected in Australia, England and Northern Ireland from Deaf people bilingual in a dialect of ISL and a dialect of BSL, two unrelated sign languages. In the Australian context, AISL is in danger of becoming a moribund language, which in turn heightens the urgency of research and documentation; the last publication which documented this language was published in 1942 (Dominican Nuns, 1942), and there is an urgent need for AISL signing to be recorded in both naturalistic conversation and through sign elicitation tasks. During sociolinguistic interviews (Adam, 2013), participants reported decreasing usage of AISL and ISL in both Australia and in Northern Ireland; AISL has not been taught as a language of instruction in school since the 1950s (S. Fitzgerald, 1999) and all the Australian participants in this study (except one, who had Deaf parents) are over 65 years old. Participants in Belfast also reported that BSL is the dominant language in Northern Ireland, and that there is substantial

attrition in ISL amongst signers in Northern Ireland, although ISL is alive and well in the Republic of Ireland.

The analyses presented in this chapter are from the series of interviews with bilingual Deaf adults presented in Chapter 5, where people discussed their experiences of being in a minority sign language community. The interviews will also contribute to a separate language documentation study outside the scope of this thesis.

Data were collected in interviews and conversations with thirteen bilingual Deaf participants. Eleven Australians (six in Sydney, four in Melbourne and one Melbourne person who was visiting London), and two people from Northern Ireland took part. No people other than the interviewer and research participants were present at the time of data collection. Data were based on responses to a set of semi-structured questions; additionally, as all deaf participants were Catholics who had attended Catholic schools where ISL was the language of instruction, they were asked at the end of the interview to sign *Hail Mary* and the *Lord's Prayer,* to obtain examples of frozen registers of signing in ISL.

For this kind of research into language shift, attrition, or even language death, the participants serve not only as informants for this specific study, but as a critical source of material for language documentation. It therefore is exceptionally important for the researcher to maintain a good relationship with the participants (Blodgett et al., 2005). There are also issues of socioeconomic status. Ladd (2003) discusses how Deaf people have had limited education and employment opportunities, and so in general the participants are of a low socioeconomic background - different from the researcher with university qualifications and an academic post. Thus the recruitment and filming of participants needs to be considered carefully. In this study the researcher, who is a native signer of AISL and Auslan, was able to use personal and family networks to

contact potential participants. Deaf people who know AISL and ISL feel themselves to be members of a neglected minority group, and this study was seen by them as a way of redressing this neglect.

7.2 Methods

Two types of of semi-spontaneous data were collected: one-on-one interviews and conversations between pairs of (and in one AISL case, a group of three) AISL or ISL signers with the researcher. Data were collected from interviews and conversations which took place in two countries: Australia (Melbourne and Sydney), and the UK (Belfast, and for one Australian participant, London). The two-participant conversations only took place in Melbourne and Sydney. In all cases, participants were unimodally and cross-modally multilingual: with BSL (or Auslan) and ISL (or AISL) as their two sign languages, and English as a written language. Participants also met the following criteria: (a) they were deaf from birth or early childhood; and (b) they had been educated in AISL or ISL during their schooling. Four had AISL as an L2, having first started their education in schools using Auslan; these participants reported that Auslan was only used in their early years of schooling – all had learnt AISL by 10 years. All except participant SM1 had hearing parents who were not native signers of either ISL/AISL or BSL/Auslan; SM1's parents were both deaf; they had been educated in AISL as an L1 and had never learned Auslan.

All Australian interviewees were personally known to the researcher, having mostly been contemporaries of the researcher's mother both at school and in the Australian Catholic Deaf community. As the researcher had exposure to AISL from very early childhood through his mother, all the Australian interviewees knew that the researcher

had good receptive skills in AISL. In Northern Ireland, the interviews were arranged with the help of the Royal National Institute of the Deaf in Belfast.

The following tables summarise demographic data about the participants: their age, age of AISL/ISL acquisition and their families' knowledge of AISL/ISL:

Sydney Interviews	Age	Age learnt AISL	Family members who use AISL
SM1	55	Native	Parents, brother
SM2	68	5	Wife
SM3	70	4	-
SF1	68	5	-
SF2	68	6	-
SF3	82	10 (Auslan is L1)	Brother, children

Table 7.1: Sydney participants

Melbourne interviews	Age	Age learnt AISL	Family members who use AISL
MM1	68	7	-
MM2	65	10 (Auslan is L1)	-
MF1	68	5	Husband, son
MF2	68	8 (Auslan is L1)	Sister, nephew, niece
MF3	69	8 (Auslan is L1)	-

Table 7.2: Melbourne participants

Belfast Interviews	Age	Age learnt ISL	Family members who use ISL
BM1	59	7	-
BM2	60	7	-

Table 7.3: Belfast participants

All participants were over the age of 55, and most participants were in their late sixties (range 55–82 years, mean 73). This reflects the ageing demographics of ISL/BSL bilinguals in Australia and Northern Ireland. The only Australian participant under 60 was a native signer who learnt AISL from his Deaf parents who had attended AISL

schools (see Chapter 4): Rosary Convent for girls in Waratah and St Gabriel's School for boys in Sydney (see S. Fitzgerald (1999) and Johnston (1998) for details). In the four cases where AISL was the L2, the participants were initially educated in the state school for deaf children where they lived. Participant MF3, for example, was educated at the Victorian School for Deaf Children until St Mary's Delgany opened when she was seven years old, where she was joined by participant MM1 who was starting his school education. Participant MM2 was educated at the same state school as MF3 until he was old enough to go to St Gabriel's in Sydney as a boarder. As a result, participants MF2 and MF3 have Auslan as an L1 but were educated in AISL as well. Participants MF1, SF1 and SF2 have AISL as their L1 and learnt Auslan as an L2 after completing their formal education. As there was no AISL school in the state of Victoria until the establishment of St Mary's Delgany, Portsea in 1947, there are four Melbourne participants who have Auslan as a first language.

For those from Sydney, from 1875 until the early 1950s there was a choice of Auslan- and AISL-medium education in the same city. All participants had AISL as L1 and Auslan as L2, having learnt Auslan after completing formal education, except SF3, who went to Darlington School before being sent to Waratah. Some participants reported having been initially sent to Darlington or VSDC because their parents did not want to send them too far away from home until they were older. For example, MM2 did not attend St Gabriel's until after having attended VSDC.

The two participants from Belfast were educated in ISL as their L1 at Cabra and learnt BSL after starting school. As can be seen from the experimental study (Chapter 5), it is possible to find people in Dublin who are bilingual in ISL and BSL who are much younger than the Australian interviewees, indicating that the sociolinguistic

situation of ISL/BSL bilinguals in Dublin differs from the Australian and Northern Ireland context.

Data were collected in one-on-one interviews and group conversations. Sessions lasted between 20 and 90 minutes (the larger the group, the longer the group conversations) and were video-recorded. Four group conversations took place: 1) SF1, SF2 and SF3; 2) MF2 and MF3; 3) SM2 and SM3; and 4) MM2 and MM3. SM1 and MM1 were interviewed individually. BM1 and BM2 were interviewed individually and also in conversation with each other. Personal data were also collected while in the group setting. The settings of the various sessions are illustrated in Figure 7.1. The researcher was not visible on-screen.
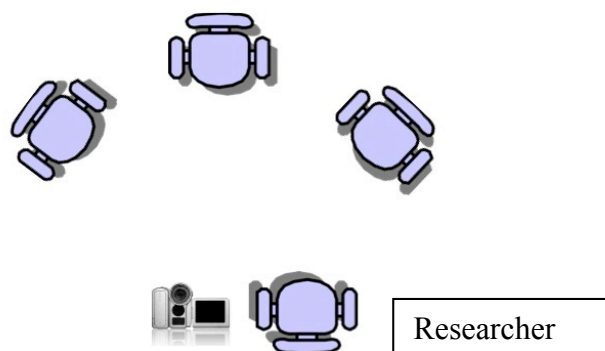
Researcher

Figure 7.1: Group setting

7.3 Protocol

The interviews and group conversations usually took place at the same location on the same day. The only persons present during the interviews were the Deaf researcher and the participants. In the group conversations, participants were videotaped in pairs or threes reminiscencing about school days, including funny moments, best memories, and

aspects of school life such as food, traveling to boarding school and fellow pupils. The Sydney female (SF) conversations were triadic; the Sydney male (SM) conversations, Melbourne female conversations (MF), Melbourne male conversations, and the Belfast male conversations were dyadic.

Figure 7.2: setting for the Sydney female conversations (3 participants).

Figure 7.3: setting for the Melbourne female conversations (2 participants).

As discussed earlier, since the researcher has never exclusively used ISL or AISL in the family or in education, he might be seen as an outsider, with the participants accommodating this in their language. It was therefore decided to set up situations in which there would be conversations between participants who could then be prompted with questions and comments from the researcher. As can be seen in Figure 7.3, the participants in conversations face each other more than they face the researcher – it was hoped that this strategy would reduce the observer's paradox. On the other hand, Figure 7.4 shows how the individual interview with MF3 was set up; she faced the interviewer and the camera during this conversation:
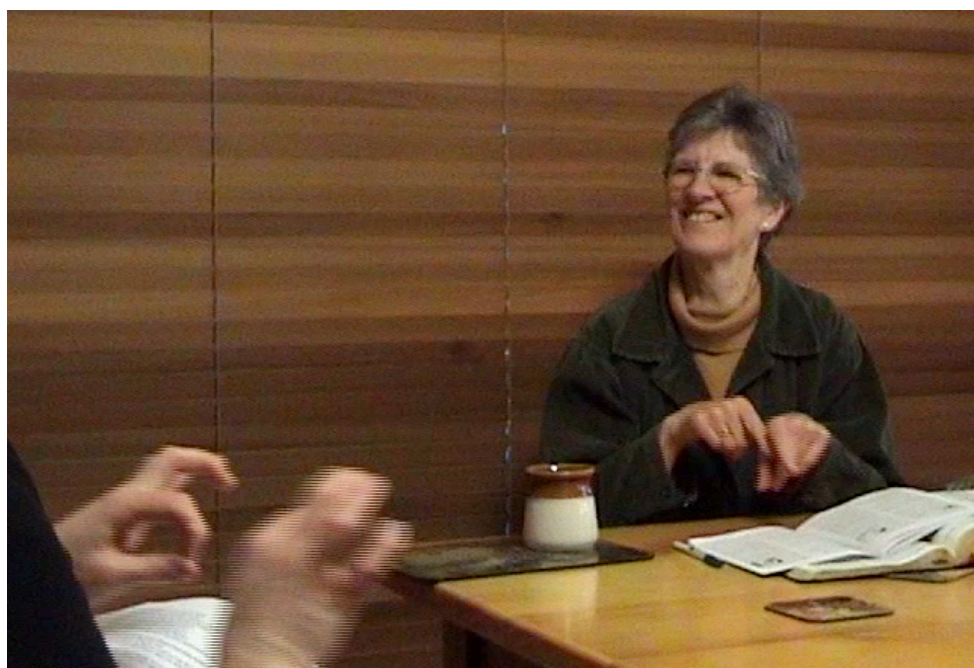
Figure 7.4: Individual interview with MF2.

MM1 and MM2 were subsequently excluded from analysis because a third sign language (American Sign Language) manifested itself in their conversation. This raises the interesting issue of language prestige in relation to sign language. The place of ASL in the Australian Deaf Community warrants some investigation, particularly with respect to the roles of (a) the Dictionary of Australasian Signs which included some morphological markers borrowed from ASL (Jeanes & Reynolds, 1982) and (b)

137

Australian Deaf people travelling to the USA for post-secondary education prior to the establishment of such provision in Australia. The BM participants have been analysed separately since both were conversations in pairs with a non ISL-native; this potentially provides an interesting comparison with the AISL-AISL pairs. The interview questions can be seen in Appendix 1.

The SM and SF interviews took place at the Deaf Society of New South Wales in Parramatta, New South Wales, Australia, and the MM interviews took place at VicDeaf (Victorian Deaf Society, the service provider for Deaf people in East Melbourne, Victoria, Australia). MF1 was interviewed at the Deafness Cognition and Language Research Centre in London. MF2 and MF3 had their conversation at a local bistro restaurant in Melbourne that was mutually convenient for them both to travel to in order to meet with the interviewer; MF2 was interviewed in the same place, and MF3 was interviewed at the interviewer's family home.

Sessions were recorded using a DV camera and DV videotape. Following the sessions, the recordings were digitized using iMovie software on a Mac computer, and each interview was saved as a QuickTime video for subsequent linguistic analysis.

As discussed in Chapter 4, ethics approval was obtained from the Graduate School Ethics Committee of University College London through the Deafness Cognition and Language Research Centre.

7.4 Mouthing

Two types of mouth actions co-occurring with manual signs are usually distinguished in the literature: (silent) mouthings of spoken language words, and mouth gestures, which are unrelated to spoken languages (Boyes-Braem/Sutton-Spence 2001). Mouthing plays a significant role in contact signing between spoken and sign languages (Lucas/Valli

1989; Schermer 1990). There is, however, disagreement about the role of mouthing in sign languages: whether it is a part of sign language (lexical signs are retrieved together with an associated mouthing – a single system) or whether the accompaniment of signs by mouthing reflects bilingualism – 2 systems are produced simultaneously (Boyes-Braem/Sutton-Spence 2001; Vinson et al. 2010). In the latter model, the combination of mouthing and signs would represent a type of voiceless code-blending between English and a sign language.

Schermer (1990), in an early study of mouthing, investigated features of the relationship between Sign Language of the Netherlands (NGT) and spoken Dutch. She reported that the mouthing of words (called 'spoken components' in her study) has two roles: to disambiguate minimal pairs, and to specify the meaning of a sign. She found differences between signers, with age of acquisition of a sign language having a strong influence on the amount of mouthing.

Schermer described three types of spoken components: (i) complete Dutch lexical items unaccompanied by a manual sign: these were mostly Dutch prepositions, function words, and adverbs; (ii) reduced Dutch lexical items that could not be identified without the accompanying manual sign; and (iii) complete Dutch lexical items accompanying a sign, which had the dual role of disambiguating and specifying the role of signs.

It has been informally reported that ISL signers use less mouthing than BSL signers. In the present study, an exploration of mouthing in unimodal bilingualism was undertaken, in order to investigate if there were differences in the use of English mouthing when signing Auslan and AISL, which would provide evidence for the single language model (signs in BSL would more often be associated with mouthing than signs in ISL – even though in both cases, the mouthing is of English words), and against

a view of sign + mouthing by signers as being a type of code-blend.

The participant for the pilot study was MF1, from Melbourne, Australia, who was in her early 70s. She had learnt AISL as an L1 at school, and still used AISL with a small circle of friends, but used Auslan in most other domains, particularly with her Deaf family members. She was interviewed alone for about 20 minutes and was encouraged to reply in AISL even though the questions were in Auslan. At the end of the interview she was asked to sign *Our Father* and *Hail Mary*.

The numbers of signs and the number of fingerspelled words (each of these was coded as equivalent to a single sign) in the entire interview were counted. All instances of mouthing were also counted. Ten minutes of the conversational data (not including the prayers) were then analysed for mouthing accompanying Australian Sign Language and Australian Irish Sign Language (Adam, 2008).

Feature	Auslan	AISL
Total Number of signs	311	166
Total number of fingerspelled items	20	28
Total number of items	**331**	**194**

Total number of mouthings (% of signs accompanied by mouthing)	133 (40%)	15 (7.7%)
- English adjectives	34 (25.5%)	
- English nouns	30 (22.5%)	3 (20%)
- English function words	24 (18%)	
- English verbs	21 (15.8%)	2 (20%)
- Negative markers	6 (4.5%)	
- English prepositions	4 (3%)	
- English proper nouns	5 (3.8%)	6 (40%)
- others (numbers, adverbs, pronouns, question words, fingerspelling)	9 (6.8%)	

Table 7.4: Pilot Study - comparison of mouthing in AISL and Auslan

Less mouthing co-occurred with AISL items (7.7% of signs had an English mouthing) and more mouthing co-occurred with Auslan: (40% of signs had an English mouthing).

Additionally, MF1 only used mouthing in AISL for three different grammatical categories (two of which can be collapsed into one category (English nouns and English proper nouns), but used mouthing in Auslan for words from more English grammatical categories. Mohr-Militzer (2011) also found that mouthings in ISL occurred most frequently with nouns, followed by verbs, and then multifunction signs, and mouthings occurred more often than mouth gestures in all of these three categories. These results are also in accord with Sutton-Spence's (1998a, 2007) finding that mouthing in BSL accompanies noun signs more frequently than verb signs. This case study also suggested that mouthing is not a direct reflection of knowledge of English, or of influence of the conversational partner's knowledge of English, and indicated instead that silent mouthing is an example of code-blending, with different affordances in different sign languages.

7.5 Analysis Methodology for the Mouthing Study

For the main mouthing study, ELAN language annotation software (Crasborn & Sloetjes, 2008) was used to annotate ten-minute stretches of signing from the interviews. Mouthings were counted for each participant (n=9). Each fingerspelled item was also counted as a sign, for example fully fingerspelled name signs. In all cases the Australian conversational participants were users of AISL. The Belfast conversations, on the other hand, were between a BSL native signer and an ISL native signer.

Participants	Average number of utterances with Auslan/BSL as the matrix language	Average number of Auslan/BSL mouthings	Mouthings per AUSLAN/BSL utterance	Average number of utterances with AISL/ISL as the matrix language	Average number of mouthings in AISL/ISL utterance	Mouthings per AISL/ISL utterance
Av F	45.6	71.7	1.57	50	73.3	1.47
Av M	45.5	129.5	2.85	26.25	44	1.68

Table 7.5: Frequency of mouthing as a percentage of mouthing relative to number of signs

As can be seen from Table 7.5, male signers produced on average many more mouthings when signing in Auslan/BSL than when signing in AISL/ISL. Female signers produced around the same amount of mouthing in both languages. Thus the findings of the pilot study were partly supported in that there was more mouthing accompanying Auslan than AISL. Fitzgerald (2014) found that varying levels of bilingualism (in ISL and English) were associated with mouthing frequency, with a specific relation to the use of prepositions, and sentence constructions with 'that'. However, while individuals may differ in their skills in English – which might account for lower or higher percentages of mouthing for that individual - this cannot directly explain differences in frequency of English mouthing by the same person when using different sign languages.

These data provide evidence for the single-language view of mouthing (signs are retrieved together with a mouthing) and against a model of mouthing representing code-blending. The reports by Mohr-Militzer (2011), Leeson and Saeed (2012) and Fitzgerald (2014) that older Deaf men use very little mouthing in ISL indicates a diachronic shift in mouthing.

7.6 Coding of Interview data for code-mixing analysis

Using ELAN (Crasborn and Sloetjes (2008), ten minutes at the start of each of the conversations were translated, glossed in English, and coded. In deciding on how to mark clausal boundaries within turns, the work of various researchers on this topic was used as a basis. Hodge et al (2011) define intonation units as being perceived by prosodic contours and interactional discourse moves, rather than by discrete prosodic markers of boundaries. In signed clause-like units, the relationship between predicates and their argument(s) can be identified using a semantic approach, but the linguistic status of the forms of these elements is not yet known. Sze (2008) showed that while blinking during signing often had a physiological cause, there were also blinks that were boundary sensitive, and Leeson (2001) found that an offset of a topic was marked by a blink. Earis (2008), on the other hand, found that a change in head and torso position had a close correspondence with role boundaries. Stone (2009) showed that head movements marked lexical, phrasal and discourse units in the signing of both Deaf and hearing interpreters. Fenlon (2010) discussed intonational phrases (IPs), segments which occur with a single prosodic contour, identified by prosodic events: head nods, single head movements, repeated head movements, brow movement, blinks, and torso activity which are likely to be synonymous with clause boundaries. Thus, there is substantial variation in how linguists identify clause boundaries. Therefore the coding marked intonation units, rather than formal clause boundaries.

Clauses in the interviews were defined as having at least one verb argument, followed by a prosodic boundary (which could be a pause, a nod, an eyeblink or a stop). Clauses were then classified within each turn as having either AISL/ISL or Auslan/BSL as the matrix language. The matrix language was determined following Auer and Muhamedova's definition (2005, p. 35). They posit that "…the way in which languages

may be combined within a syntactic unit is such that language A is dominant and language B (embedded language) is inserted (in the form of single words or of larger constituents) into the grammatical frame defined by language A (matrix language). The grammar of the matrix language provides the grammatical frame of the sentence as a whole, while the grammar of the embedded language is used only in complex insertions to determine the structure of the inserted constituent."

The glossing of each sign indicated whether it was in AISL/ISL or Auslan/BSL. This made it easy to see where the switches between the two languages occurred. All switches and the direction of switch were coded. Switches were defined as a point of language change, whether interclausal or intraclausal. Analyses did not distinguish between switches and mixes.

All participants had been asked to conduct their conversations in AISL/ISL. However, most conversations started in Auslan/BSL, and all participants reported in the interviews that AISL/ISL was not used in their everyday lives. Their choice of language to begin a conversation helped indicate which languages was dominant.

Example 1 is of a clause with AISL as a matrix language, and Example 2 is of a clause with Auslan as a matrix language.

(1) Example of a clause with AISL as the matrix language[13]

SM1: (Clause 13[14])

FINISH **W-A-S-H U-P ALL PLATES CUP KNIFE FORK FINISH**

When I finished washing up all the plates, crockery and cutlery

---

[13] UPPER CASE: Auslan gloss
BOLD UPPER CASE : AISL gloss
Hyphens between upper case letters indicate fingerspelling W-O-R-D
SIGN+++: repeated sign
/:clause boundary
G: gesture
CL-: classifier sign
POSSn: possessive pronoun
PROn: pronominal
[14] Clause numbers relate to the transcripts in Appendix 5

(2) Example of a clause with Auslan as the matrix language

SF1: (Clause 2)

PRO1 WENT T-O **WARATAH** AGE WHEN FIVE-YEARS-OLD

I went to Waratah when I was five years of age

Figure 7.5 below shows overall that there were more utterances (an individual stretch of signing) in the 10 minute samples in all conversations where Auslan/BSL was the matrix language (n=410) than when AISL/ISL (n=355) was the matrix language,
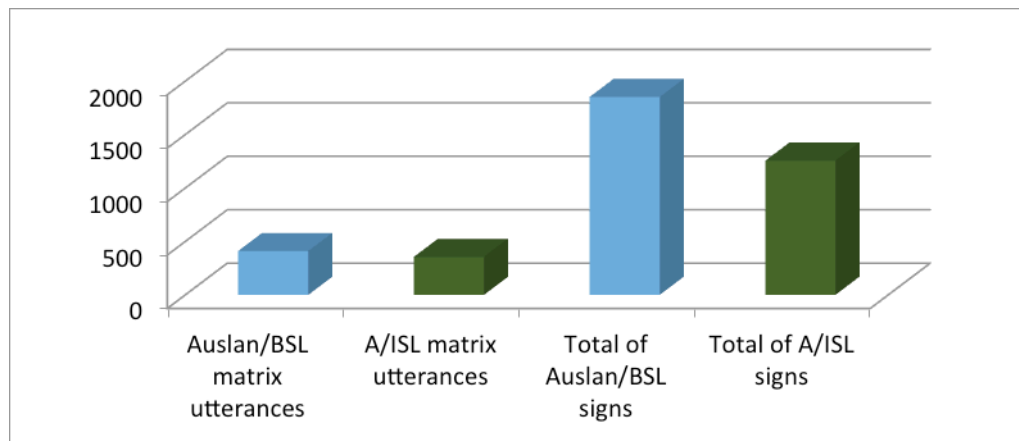
Figure 7.5: Number of utterances and signs in each language pair.

7.7 Categories of Codemixing

Examples of codemixing (which is treated in this study as the same as codeswitching) were found throughout the data. In the following example, glosses are in **BOLD** for AISL, and UNBOLDED for Auslan, and the "/" stroke is used to mark clauses boundaries.

Example (3) represents codemixing within an utterance: SF1 starts in Auslan and then continues in AISL:

(3) Codemixing example

SF1: (Clause 23)

SIGN **BY "NAME-SIGN" / POSS1 FIRST**

..signing from "name", who was my first… (SF1 quote 25)

Poplack (1980) discusses three major types of switching identified in a study of Puerto Ricans bilingual in English and Spanish:

(1) Tag-switching, in which tags and certain set phrases in one language are inserted into an utterance otherwise in another, as when a Panjabi/English bilingual says: ***It's a nice day***, ***hana?*** (***hai nā isn't it***);

(2) Intra-sentential switching, in which switches occur within a clause or sentence boundary, as when a Yoruba/English bilingual says: ***Won o arrest a single person*** (***won o*** they did not); and

(3) Intersentential switching, in which a change of language occurs at a clause or sentence boundary, where each clause or sentence is in one language or the other, as when a Spanish/English bilingual says: ***Sometimes I'll start a sentence in English y termino en español*** (and finish it in Spanish). This last may also occur as speakers take turns.

A fourth type of switching is discussed by Li Wei (2007):

(4) Intra-word switching, in which a change occurs within a word boundary, such as in ***shoppã*** (English ***shop*** with the Panjabi plural ending) or ***kuenjoy*** (English ***enjoy*** with the Swahili prefix ku, meaning 'to').

Examples of switching types 2, 3 and 4 were found in the conversation data. An equivalent of a tag that would be possible in sign language would be KNOW-YOU ('you know') or a modal SHOULD or MUST attached to the end of a clause. However, there were no examples of tag switching in the coded data.

Intra-sentential switching:

This is the most common type of codeswitching occurring in the data, where switches occur within a clause or a sentence boundary. Intra-sentential switching occurred from Auslan to AISL as in examples (4) and (5), and from AISL to Auslan in examples (6) and (7):

(4) intra-sentential switching (Auslan to AISL):7

SF1: (Clause 6)

PRO1 START **S-T-A-R-T LEARN SIGN++**

I started to learn to sign

(5) intra-sentential switching (Auslan to AISL):

MF3: (Clause 51)

PRO2 IN **CHARGE O-F US YOU POINT POINT**

You were in charge of all of us

(6) intra-sentential switching (AISL to Auslan):

MF2: (Clause 56)

POINT NAME-SIGN DRESS CAN'T REMEMBER

Person was dressed up, but I can't remember[15]

---

[15] It was determined that the POINT was in AISL as it was followed by an AISL name sign, making up the matrix language

(7) intra-sentential switching (AISL to Auslan):

SF2 : (Clause 49)

LEAVE SCHOOL THINK BACK **HOPE REMEMBER NAME-SIGN**

NAME-SIGN

When I left school I used to think back and hope to remember (person) and

(person)

Intersentential switching:

Intersentential switching generally occurred at clause boundaries within a single turn.

(8) intersentential switching Auslan-AISL-Auslan:

 MF2: (Clauses 34, 35 and 36)

DOOR-OPEN STRIDE G:wow /**NUN LOVE H-E-R** /GOOD T-O

REMEMBER PRO3

The door would burst open and she would come striding in – the nuns really

loved her and it is good to remember her.[16]

(9): intersentential switching Auslan-AISL:

SF2: (Clauses 36 and 37)

RIGHT DEAF T-O DEAF ALWAYS/**ALWAYS UNDERSTAND AND F-E-**

E-L COMFORTABLE C-O-M-F-O-R-T-A-B-L-E TO TALK TO POINT

From one deaf person to another, always, understand and feel comfortable being

able to talk to each other

---

[16] As the sign **LOVE** was preceded and followed by AISL signs, and because
this sign is present in both in AISL and Auslan, it was determined that this was
an AISL sign. Additionally, the sign **H-E-R** was fingerspelled in AISL.

Switches also happened when a signer began a new turn, but they were very infrequent; a switch into Auslan occurred more frequently (n=11) than a switch into AISL (n = 5). Switches were more frequent at a clause boundary (n=94).

(10): switches with change in interlocutor

MF2: (Clause 13) turn 1

LEAVE SCHOOL

when I left school

MF3: (Clause 7) turn 2

PRO1 PRO1 REMEMBER W-H-E-N PRO1 ARRIVE PORTSEA

I remember when I arrived at Portsea

Intra-Word Switching

Because of the simultaneous and sequential nature of sign languages, particularly in phonological terms, intra-word switching is likely to be rare. Because of this, there is a relative absence of affixation in sign language (T. Johnston & Schembri, 2007) apart from a few examples of a negative suffix and a genitive suffix in Auslan for instance. There is one example, however, of a signer adding an English affix (in AISL fingerspelling) to an Auslan sign:

(11) intra-word switching:

MF2: (Clause 54)

HOT-**E-S-T**

'hottest'

(Evidence of this morphological marking is also found in ISL (J. McDonnell, 1997) where older signers add the agentive suffix for example, TEACH-ER, WALK-ING, etc).

Examples of each of the coding categories for intra-sentential switching are presented and discussed below. The following categories were used to code examples of code-switching: 1) supplied sign, 2) doubling (a. from Auslan to AISL, b. from Auslan to AISL fingerspelling, c. from AISL to Auslan fingerspelling, d. without a switch, e. two doublings) and 3) fingerspelling in place of an AISL sign.

The category of 'supplied' sign was used where one participant prompted the other with a sign – for example, when one participant struggled to produce a sign or had difficulties with language choice, the other participant prompted with the correct sign (see Example 12 below). These were usually in response to an Auslan sign, and are distinct from a conversational turn. The number of times each participant supplied a sign to the conversational partner was coded.:

(12) Supplied sign
SF1: (Clause 15)

PRO1 WRITE++ /GIVE THEY WRITE/ G:get-attention/WRONG MUST

CHANGE+++ (SF2, quote 85)

I would show them my written work and they would point out my mistakes which I

would need to change

SF2: (no clause)

CORRECTION
(or) correct (your work) (where SF2 has shown SF1 the correct sign

CORRECTION)

(13) Supplied sign

MF3: (no clause)

RIGHT
That's right

MF2: (Clause 8)

RIGHT GOOD
That's right OK. (where MF2 has shown MF3 the correct sign **RIGHT)**

(14) Supplied sign (in place of a gesture)

SM2: (Clause 11)

R-U-N G:around

SM1: **ROUND**

In this example, SM2 has used a pointing gesture to indicate 'around' and SM1 has

shown him the correct initialised sign ROUND. Leeson and Saeed (2007) refer to the

'de-initialisation' of ISL signs, and it would be interesting to determine whether the sign

G:around is an Auslan sign, or an example of the de-initialisation of the ISL sign

ROUND.

Quinto-Pozos (2002, 2007, 2008) discusses how signers of Mexican Sign

Language (LSM) and ASL living at the US-Mexico border engage in what he calls

reiterative code-switching: the sequential use of synonymous signs in different

languages. Inkela and Zoll (2005) have also investigated morphological doubling in

spoken languages. Quinto-Pozos' examples of 'reiterative code-switching' appear to be the same as the 'doubling' described in spoken language bilingualism (Deuchar et al (2007:317) where "the semantic value of the switch is the same as that of another morpheme in the original language also found in the utterance". Doubling is distinct from reduplication in spoken languages, which refer to phonological and morphological processes. Examples of doubling (highlighted below) also include fingerspelling (see examples (15), (16) and (17)):

(15) Doubling (from Auslan to AISL)

SF1: (Clause 10)

WITH PRO1 LEARN SIGN/ POSS1 MOTHER **MOTHER FATHER GONE**

I learnt to sign after my parents left

(16) Doubling (from Auslan to AISL)

MF2: (Clause 16)

POINT PRO1 THOUGHT/ALL NUN **NUN** W-A-S MAN

I thought all nuns were men

(17) Doubling (from Auslan to AISL)

SF2: (Clause 18)

REMEMBER PRO1 WRITE **E-N-G-L-I-S-H** WHEN THEY CORRECT PRO1 LITTLE NOT-UNDERSTAND **UNDERSTAND W-H-Y POINT HAVE TO CORRECTION MY POINT**

I remember they would correct my English when I wrote things [in school] and I never completely understood why they had to do that

Examples (15), (16) and (17) show that doubling from Auslan to AISL seems to occur freely within the clause; but not across prosodic or clausal boundaries. There were also many examples of doubling when fingerspelling was used (see Chapter 2 for a discussion of fingerspelling). It is worth highlighting the fact that the two languages in contact, Auslan and AISL have totally different fingerspelling alphabets.

Fingerspelling is treated differently by different researchers; some see it as part of the signed language and others see it as a something from outside the core lexicon. There has also been research into what happens when a fingerspelled form becomes nativised into a sign (Cormier et al., 2008; Kyle & Woll, 1985; Sutton-Spence, 1994). This has also been examined by Matthews (1996)and Leeson & Saeed (2012) in relation to ISL. Sutton-Spence (1994) discusses fingerspellings and single manual letter signs (SMLS) generally as loans from English. None of this research has looked at what happens with fingerspelling in the context of contact between two sign languages. In Quinto-Pozos (2007), fingerspelling is viewed as one of the points of contact between a signed and a spoken language, although it is possible to use fingerspelling as a way of code-mixing. As well as the example of SCHOOL in AISL being doubled in Auslan, Example 19 also illustrates a type of switch unique to sign languages where the code-switching is realised by using the fingerspelling system associated with the other sign language, rather than by producing a sign in the other sign language. Signers of both BSL and ISL use English in its written form. It might be thought therefore that the use of fingerspelling represents a straightforward switch to English. However, because each sign language is associated with a specific manual alphabet, , a switch from e.g. ISL signs to BSL fingerspelling represents not only a switch from one sign language to an (orthographic representation of) English, but simultaneously to the orthographic representation associated with the other sign language.

In the example here, the signer produces TYPE in Auslan and then follows this sign with **T-Y-P-E,** fingerspelled using the AISL fingerspelling system (a one-handed system that differs from the two-handed Auslan system), and then returns to signing in Auslan. There were 21 clauses in which doubling involved a switch to the manual alphabet associated with the other sign language, a total of 11.4% of all clauses coded.

The following example on the other hand shows that fingerspelling is sometimes used where there is actually a sign in both Auslan and AISL; MF2 fingerspells **B-L-A-C-K** and **W-H-I-T-E** even though a sign for each colour exists in both languages, suggesting that the signer may be unable to retrieve the AISL sign.

(18) Fingerspelling (in place of a AISL sign)

MF3: (Clause 21)

NUN WHITE CL:habit PRO1 THOUGHT **B-L-A-C-K CL:B-outfit**

BECAUSE MY BROTHER GO SCHOOL POINT B-L-A-C-K CL:B-outfit

POINT W-H-I-T-E WELL

'the nuns were dressed in a white habit, but because the nuns at my brother's school wore a black habit I was expecting to see them wear black, but no, they were dressed in white'

In the following examples, fingerspelling signs used in doubling are analysed as code switches from Auslan to AISL; in (19) the Auslan sign TYPE was used, followed by fingerspelling **T-Y-P-E** in AISL. In example (20), the Auslan sign FUNNY was used, followed by fingerspelling **F-U-N-N-Y** in AISL; in example (21) the Auslan sign JAM was followed by fingerspelling **J-A-M** in AISL:

(19) Doubling (Auslan fingerspelling to AISL fingerspelling; AISL sign to Auslan sign)

SF3: (Clause 36)

PRO1 CAN TYPE **T-Y-P-E THERE** SCHOOL SCHOOL GOOD/ WHEN FINISH WORK NOTHING MACHINIST

I was able to type well at school but when I left school I became a machinist and never typed

(20) Doubling (Auslan fingerspelling to AISL fingerspelling twice)

MF2 (Clause 4)

W-E WEATHER FUNNY NOW F-U-N-N-Y F-U-N-N-Y

The weather is a bit funny these days

(21) Doubling (Auslan sign to AISL fingerspelling)

MF2: (Clause 65)

POINT PRO1++ NEVER LIKE JAM **J-A-M**

I've never liked jam

As with the examples of sign doubling (as seen in examples 15, 16 and 17), doubling with fingerspelling occurs freely within prosodic and clausal boundaries. There were also codeswitches into Auslan from AISL where the AISL sign was followed by an Auslan fingerspelled word:

(22) Doubling (AISL sign to Auslan fingerspelling)

SF2: (Clause 18)

WE PRO1 WENT CORRECT C-O-R-R-E-C-T-I-O-N

We went and had (our school work) corrected

Entire clauses were sometimes doubled: SF2 doubled an Auslan clause in AISL with AISL fingerspelling, as in example (23) where PRO1 REMEMBER was doubled as **PRO1 R-E-M-E-M-B-E-R.**

(23) (Doubling of clause from Auslan and Auslan fingerspelling to AISL and AISL fingerspelling)

SF2: (Clause 2)

PRO1 REMEMBER / **PRO1 R-E-M-E-M-B-E-R** / PRO1 WENT **T-O SCHOOL 1946 / PRO1 WAS NEARLY 6 Y-E-A-R-S-O-L-D**

I remember starting school in 1946 when I was almost six years old

There were also examples where there was no code-switch, but doubling occurred with a sign followed by a fingerspelling with the same meaning in the same language:

(24) Doubling from sign to fingerspelling without a code-switch

SF2 (Clause 37)

AND F-E-E-L COMFORTABLE C-O-M-F-O-R-T-A-B-L-E TO TALK TO POINT

and we feel comfortable being able to talk to them

Doubling within fingerspelling

In the following examples, AISL fingerspelling is produced, doubling AISL signs:

(25) Doubling (in a clause with two doublings, one from an Auslan sign to AISL fingerspelling and the other from an AISL sign to an Auslan sign)

SF3: (Clause 36)

PRO1 CAN TYPE **T-Y-P-E** **THERE** SCHOOL SCHOOL GOOD WHEN FINISH WORK NOTHING MACHINIST

I was able to type well at school but when I left school I became a machinist and never typed

7.7.1 Codeswitching in the data:

Three hundred and twenty clauses were coded. A clause was coded as having a verb argument, with prosodic boundaries. Of the 320 clauses, 184 had code switches. The following table shows the number of switches:

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

Table 7.6 Number and percentages of code switches into either language

Muysken (2000:27) suggests that for code-switching to occur, there needs to be compatibility with sentence structure in terms of word order, categorial equivalence, position within a clause, and equivalence of function words. These restrictions can be seen to be relevant to these data.

Single word insertion occurred in 57% of sentences, a total of 105 out of 184 clauses with code switches. 85 of those were into AISL, and 30 were into Auslan. The following table breaks down the different word categories of single sign insertions into AISL:

Word category (AISL)	Percentage of total insertions of Auslan single signs into AISL
Nouns	23
Verbs	9
Function sign	7
Adjectives	7

Table 7.7 Percentages of Auslan single sign insertions into AISL

Examples of single noun insertions from Auslan included both signs and fingerspelling: ENGLISH, AUSLAN and JAM.

(26) verb insertion

SF2

ME WRITE++ GIVE THEY WRITE G:GET-ATTENTION WRONG MUST

CHANGE++ **CORRECT C-O-R-R-E-C-T CORRECT**

I would write and give it to them, and they would tell me what was wrong with my writing and make corrections

(27) Function word insertion

SF2: (Clause 31)

LIKE KNOW **W-H-Y**

(I would) like to know why

(28) Function word insertion

SF2: (Clause 48)

SORRY PRO1 (NOT) SCHOOL **S-I-N-C-E** 1955

I have not been at school since 1955

(29) Function word insertion

SF1: Clause 39

SHE ME SAME FIRST HOLY COMMUNION CONFIRMATION UNTIL

FINISH **SCHOOL**

She was in the same group as me from our first holy communion until we finished

school.

(30) Number insertion

SM2 (Clause 25)

WHEN I FIRST **ARRIVE** ST-GABRIELS 19 **1946**

When I first arrived at St Gabriel's in 1946.

(31) Number insertion

SF2 (Clause 46)

1945 START **1946** WHY POINT NOTHING JOIN

She was there in 1945 but I started in 1946 which is why I was not with (them)

For all of the Belfast participants, ISL occurred only in insertions of single lexical items, embedded in BSL matrix utterances. The following is an exhaustive list of these items: **ISL**, **GOOD**, **FINGERSPELLING**, **V-A-L** and **ST-JOSEPH'S**. **ISL** and **ST-JOSEPH'S** are examples of lexicalised fingerspelling and **V-A-L** is a proper name. **GOOD** and **FINGERSPELLING** are lexical signs**.**

AISL single sign insertions mostly verbs (n=17) followed closely by mostly nouns (n=15) and function signs (n=14). Both had a very small number of number single sign insertions. Examples of AISL verbs were CORRECT, C-O-R-R-E-C-T and A-P-P-R-E-C-I-A-T-E-D. AISL function words included W-H-Y (n=1), S-I-N-C-E (n=1) and numbers (1945 and 1946) (both n=1).

Word category (Auslan)	Percentage of total insertions of AISL single signs into Auslan
Verbs	17
Nouns	15
Function sign	14

Table 7.8 Percentages of AISL single sign insertions into Auslan

Another set of factors which may influence code-switching are the characteristics of the *users*, including their degree of proficiency in each language, the range of domains in which the languages are used, attitudes towards the languages, and so on. For these reasons, it is important to compare relatively similar individuals within language-pairs. Although spontaneous data from longitudinal studies would provide useful evidence about changes in attitudes and language skills over time, such data are

not available as the participants are all older, and there are no young people learning AISL as a L1.

7.8 Theories of codeswitching

In his original typology, Muysken (2000) outlined three code-mixing patterns. The first - *insertion* − is found most commonly where there is typological distance between the two languages, and is characteristic of colonial settings, recent migrant communities and asymmetry in a speaker's proficiency in two languages. *Alternation* is found in stable bilingual communities where there is typological distance and where there is a tradition of language separation. *Congruent lexicalisation* is found where there is typological similarity, where the two languages in contact have roughly equal prestige and where there is no tradition of overt language separation (see Table 7.9 below). Example 32 shows an example of insertion of a word (but not always necessarily a word) within a clause.

(32) Example of insertion:

SM1: "NAME-SIGN" WE **MISSED** WE FULL SCHOOL ROOM

We missed [name] although we were in the full classroom.

Example 33 shows alternation between clauses, in AISL, then in Auslan and back to AISL:

(33) Example of alternation:

MF1: **PRO1 BORN MELBOURNE** GROW-UP GO SCHOOL WARATAH

LEARN I-S-L FINGERSPELLING

I was born in Melbourne and grew up attending Rosary Convent, Waratah where I learnt to sign and fingerspell Irish Sign Language.

A final type of mixing described by Muysken (2000) is congruent lexicalisation, characterised by 'fragments from each variety' [which] 'apparently do not form coherent chunks' (Deuchar et al 2007:305), and where 'the grammatical structure is shared by languages A and B, and words from languages a and b are inserted more or less randomly' (Deuchar et al 2007: 204 from Muysken, 2000:8.

Code-mixing pattern	Linguistic factors favouring this pattern	Extralinguistic factors favouring this pattern
Insertion	Typological distance	Colonial settings; recent migrant communities; asymmetry in speaker's proficiency in two languages
Alternation	Typological distance	Stable bilingual communities; tradition of language separation
Congruent lexicalisation	Typologically similar languages	Two languages have roughly equal prestige; no tradition of overt language separation

Table 7.9: Deuchar, Muysken and Wang's (2007:309) typology of code-mixing patterns.

Given that there is a high incidence of insertion in the data, and that there is asymmetry in proficiency of signers in the two languages, as well as the lower prestige of AISL compared with Auslan, it would be expected that insertion would be the dominant code-mixing pattern. However, as AISL and Auslan are typologically similar, congruent lexicalisation would be expected to predominate. In these data it is difficult to distinguish insertions from congruent lexicalisation.

The availability of two different types of fingerspelling adds a dimension to code-mixing which has no direct parallel in spoken language research. Fingerspelling in two different manual alphabets, both representing English words, is not in itself evidence of trilingualism (2 sign languages + English) but is suggestive of the strong associations between a sign language and its associated manual alphabet, and has not been reported before in the sign language literature. It must be stressed that the reasons for the choices between the two languages (ie switching from Auslan or two-handed fingerspelling to AISL or to Irish fingerspelling) remain unclear, although the high incidence of AISL fingerspelling among L1 AISL signers may point to language attrition.

Although the categories put forward by Deuchar et al (2007) in their code-mixing framework offer a structure for analysis, they were designed for spoken languages, and some are not easily applied to sign language grammar. For example, adverbs and conjunctions make up a single feature in their inventory, but adverbs work in a different way in sign languages from adverbs in spoken languages – they are often incorporated into the articulation of the sign, or are non-manual, rather than being separate lexical items. Other features in the framework such as 'long constituent items' and 'complex constituents' do not have clear parallels in the sign language literature, and 'morphological integration' does not take into account the very great similarity among European sign languages in terms of morphology.

7.8.1 Green's framework

Green's psycholinguistic framework (1986, 1998) provides a different approach to AISL/ISL and Auslan/BSL bilinguals which is of use in understanding features of code-mixing in the data, including the prevalence of doubling. Green (1986) proposed three stages of activation of languages: selected, active and dormant. The selected language is

the language in use at any given time; the active language is not in use but available; the dormant language may not be accessible to activation, as in contexts of attrition. In this model, the language in use is activated more than the other language(s), while the other languages are inhibited. The inhibition of a language increases mental load. Hence, in Green's model (1998), language contact phenomena such as code mixing are the outcome of the increased mental load required for inhibition in the context of competition between two or more languages. As the mental load increases, the ability to monitor and inhibit other languages decreases, and this results in phenomena such as transference and convergence between the languages in contact, as well as code-mixing. Thus, when producing a language which is less used, greater effort will be required to inhibit the stronger language, particularly where the two languages are typologically similar. The prominence of doubling indicates retrieval difficulties, with the production of some signs in the inhibited stronger language as well as in the active weaker language, even after their equivalents have already been produced in the active language, showing that the stronger language cannot be suppressed completely:

(34) Doubling: evidence of retrieval difficulties

SF1: WITH PRO1 LEARN SIGN POSS1 MOTHER **MOTHER FATHER GONE**

..I learnt to sign after my parents left

(35) Doubling: retrieval difficulties

MF2: POINT PRO1 THOUGHT ALL NUN **NUN** WAS MAN

I thought all nuns were men

In Example (36), the signer switches back to Auslan to produce RUN, then produces a doubling in AISL fingerspelling. This suggests that the signer has difficulty in retrieving the AISL lexical sign **RUN,** and instead produces two alternative forms for the meaning.

(36) Doubling: retrieval difficulties

SM2: FIRST **T-H-E-N** RUN **R-U-N** **AROUND** FIRST

'..we would run around first'

The interviews also provide evidence of embarrassment and stress resulting in perservation, which Green (1998) suggests is evidence of a high mental load. The participants sometimes look uncomfortable at not being able to produce the desired sign, and make faces when their conversational partner prompts them with the correct sign:

(37) Perservation

MF2: **RIGHT RIGHT**

[you are] right (shows MF3 the correct sign)

MF3: **RIGHT** GOOD

right oh yes, good [that's the sign then] (smiles awkwardly).

7.8.2 Evidence of Language attrition in the data

Schmid and Jarvis (2014) discuss language attrition as being characterised by lexical access difficulties, dysfluency phenomena, and cross-linguistic interference. The data in the conversations and interviews reveal a great deal of lexical access difficulties.

Fingerspelling in AISL following the use of an Auslan sign occurred frequently, with the fingerspelled word in AISL produced instead of an AISL sign. The extensive appearance of code switches (51.1% into Auslan and 46.7% into AISL, even where participants were asked to use AISL, supports the view that Auslan is becoming the stronger language for this population, and this is reinforced by comments made by participants in some of the interviews. There were more single sign insertions from Auslan into AISL matrix sentences than AISL signs into Auslan matrix sentences, as well as a higher proportion of sentences with Auslan as matrix as in Figure 7.5, and overall more Auslan signs used in the conversations. These findings, along with the presence of extensive code-switching in the data indicates that AISL is in attrition in this community.

7.9 Conclusions

In this chapter, code-switching in conversations was investigated, and was found to be extensive. Insertion of signs, insertion of fingerspelling, and doubling (repetition of signs and fingerspelling in the two languages), were found in all conversations. The use of mouthing to accompany Auslan and AISL signing was explored, with an indication that the use of English mouthing differed in the two sign languages, with more mouthing accompanying Auslan than AISL. This suggests that the use of English mouthing by Deaf signers is not simply a case of blending of of English and a sign language.

Single word insertions occurred in 57% of the clauses coded. Auslan insertions into AISL, were most often nouns, with much less frequent insertions of by verbs, function signs and adjectives. AISL insertions into Auslan, occurred to a similar extent with nouns, verbs and function signs. There were extensive examples of doubling. This

may be a characteristic of language attrition – where signers are either not sure that their conversational partner understands AISL signs or where signers aren't sure that they themselves are recalling the correct sign. Code switches including doubling occurred more frequently from Auslan to AISL than from AISL to Auslan. This might indicate that signers may find difficulty in recalling signs in AISL so insert an Auslan sign while they recall the correct AISL sign, or use AISL fingerspelling to recall the sign.

Contexts for the use of AISL (and ISL in Northern Ireland) have reduced, and lexical access difficulties, dysfluency phenomena, and cross-linguistic interference were all present in the AISL signers, indicating attrition in the knowledge of AISL and ISL in this population. With reference to Deuchar, Muysken and Wang's (2007) framework, it would appear at first that insertion was the dominant code-mixing pattern, particularly with respect to the asymmetry in language proficiency and the lower status of one than the other, but congruent lexicalisation may also be considered as the predominant code-mixing pattern, especially because AISL and Auslan are typologically similar. These insertions (and indeed examples of doubling) seem to occur freely within the prosodic and clausal boundaries of the clause, perhaps indicating that it is difficult to distinguish insertion from congruent lexicalisation as the dominant code-mixing pattern.

Green (1998)'s work on mental load in bilingualism is relevant to this study: embarrassment and perseverance were observed during many of the conversations, and mental load may explain some of the findings in both the conversations and the experimental study.

The analyses presented here are among the first to discuss unimodal sign language bilingualism within a Deaf community. The study of bilingualism is enhanced by the inclusion of sign languages. This study has lent itself to a greater understanding

of bilingualism and which aspects of bilingualism are modality-specific and which

aspects of bilingualism are not.

CHAPTER 8: CONCLUSIONS

Within the field of sociolinguistics the impact of language contact must be addressed in relation to modality in order to account for differences between unimodal contact between spoken languages or between sign languages, and cross-modal contact involving a sign language and a spoken language. There is extensive research into unimodal bilingualism in spoken languages, and also a growing body of research on cross-modal bilingualism. However, there has been little consideration of sign language-sign language bilingualism. From the earlier explorations of the applicability of the concepts of diglossia and pidginisation (Deuchar, 1984b; Woodward, 1973a, 1973b) to cross-modal contact (Battison, 1978; McKee et al., 2007), researchers have moved towards a model of bimodal language contact and the consideration of code-blending in simultaneously bimodal utterances (Baker & van den Bogaerde, 2008; van den Bogaerde & Baker, 2005a), as well as other features of language contact including lexical borrowing via fingerspelling and loan translation (Sutton-Spence, 1994, 1998b), and syntactic influences of spoken language on sign language (T. Johnston & Schembri, 2007). The present study was designed to explore bilingualism in two sign languages to see if features such as code-switching, borrowing, language transfer and interference are found, and how they are instantiated in sign language - sign language contact.

8.1 History of BSL and ISL and the social context

The social histories of the dialects of BSL: BSL and Auslan, and the dialects of ISL: ISL and AISL, have been described here. Their histories contrast, although all are languages of minority communities in the British Isles and Australia. BSL, the sign

language of Deaf people in Great Britain, was first recorded in Australia in 1823, with the arrival of the early settlers. ISL, the language of Deaf people in Ireland, arrived in Australia in 1875 when a group of nuns established the first Catholic school for Deaf children. While the languages are typologically similar (at the phonological, morphological and grammatical levels) despite being historically unrelated, they have very different lexicons, and differ in other respects, the most striking being the presence of gendered signing and verb agreement grammatical markers in ISL, neither of which is found in BSL or its dialects.

The literature review and the interviews with signers revealed much about the status of AISL in Australia and ISL in Northern Ireland. The Auslan dictionary, the only sign language dictionary in Australia based on linguistic research, does not discuss AISL in detail and the language is referred to as 'Catholic sign language'. The last dictionary of AISL was published in 1942, ten years before it ceased to be taught in Australian schools.

8.2 Studies undertaken

A number of studies were conducted to investigate the different aspects of this bilingual language contact: sociolinguistic (Chapters 4 and 5), switching cost and cognate facilitation (Chapter 6), mouthing used in the different sign languages and code-mixing in conversation (Chapter 7), using a variety of quantitative and qualitative approaches, and linguistic, sociolinguistic, and psycholinguistic methodologies.

8.2.1 Switching Cost

A psycholinguistic experiment was based on language switch cost studies by Meuter and Allport (1999) and Costa and Santesteban (2004). Two experiments were designed and administered to signers with ISL as their L1 and BSL as their L2. Response

latencies were shorter for stay ISL trials than stay BSL trials. A switching cost was found. In terms of errors, BSL stay trials were the most accurate, followed by the switch trials (BSL to ISL and ISL to BSL), which were equal to each other in accuracy, followed by ISL stay trials which were the least accurate. The accuracy of responses of stay trials in both the L1 and L2 were roughly the same, and switching costs were the same for BSL to ISL and ISL to BSL trials. A cognate facilitation effect (Christoffels et al., 2007; Costa et al., 2000) was found, with a faster response time for signs that were pseudo-cognates in ISL and BSL than for signs which were formationally distinct; this was a stronger effect than the switching cost.

The dominance of BSL as an L2 in the Northern Ireland Catholic Deaf community, reported by participants, may explain why the findings of Costa and Santesteban on Spanish and Catalan were not replicated. It is possible that for some of the participants, ISL is undergoing attrition and BSL has become the more dominant language. Additionally, a timed trial may not be suitable for a language in attrition, and a bottom-up as well as a top-down experimental task should be considered for this kind of work (Kleinman & Gollan, 2016).

Mental load (Green, 1998) may explain some of the phenomena found in both the interviews and the experiment – participants need to be able to activate the chosen language to a sufficient level to be able to formulate the desired signs.

Further studies would be necessary to determine if the difference in response latency indicates a general difference between spoken and signed languages. Such a difference might be the case if the planning (or formulation) stage described in Levelt (1989) and Green (1998) requires a different level of mental load in sign language than in spoken language in relation to inhibition, or might reflect a sign language-specific production effect. However it appears most likely that these differences may be the

result of the L2 in this population having become more dominant than the L1: living in a majority L2 (BSL or Auslan) community has had an influence on the signers' L1. We may be seeing the outcome of language attrition, which may reduce the asymmetry effects that Costa and Santesteban (2004) report. In the absence of a comparable study of attrition of a spoken L1 in favour of an L2 this is impossible to confirm. However, the study presented here may have provided new evidence that sociolinguistic experience influences language processing, and consequently the results of this type of psycholinguistics task.

8.2.2 Mouthing

Spoken words are often co-articulated with signs by hearing native signers who are bilingual in a sign language and a spoken language. This has been called code-blending, a mix of two languages only possible when they are in different modalities. Emmorey et al. (2012), in a study of code- switching between ASL and English by a group of bimodal bilingual adults, found that bimodal code-blending was used frequently, and unlike studies of unimodal code-switching between spoken languages – appeared to involve little cognitive cost. This suggests a difference in lexical retrieval in unimodal bilingualism in comparison with bimodal bilingualism. However, the difference between modalities may be different for Deaf signers as, unlike hearing bimodal bilinguals, both languages in Deaf cross-modal bilinguals are processed visually. We may therefore ask, firstly, whether the use of mouthing by Deaf individuals represents code-blending, given that the articulated words are silent? Secondly, does this simultaneous articulation reflect joint retrieval of a sign with an accompanying mouthing, or are the two forms retrieved independently. Deaf AISL-Auslan bilinguals provide an opportunity to answer this question, since the mouthed forms that accompany the signs are based on English words. If signers separately plan English

mouthing and sign production, then it would be expected that the use of mouthing would be the same whether it accompanies Auslan or AISL. If in planning articulation, the mouthing is retrieved jointly with the sign, then the use of mouthing might differ across the two languages. Vinson et al. (2010), in an experimental study looking at retrieval errors, reported that mouthing by Deaf signers of BSL was not bundled with manual components in a sign but was part of a separate channel. They argued for separate representations of mouthings and manual components of lexical signs, which they suggested resemble accounts of code blends in hearing cross-modal bilinguals (e.g., Emmorey et al., 2008).

A pilot study in which the frequency of mouthing used by one participant when signing Auslan was compared with the frequency of mouthing used by the same participant when signing AISL study found that these differed: there was considerably more mouthing in Auslan than in AISL. The study was repeated on the AISL/Auslan data for all participants, which confirmed this finding, although the differences were smaller than in the pilot. This indicates that the use of English mouthing by Deaf signers does not represent separate retrieval of words and signs. It may be that mouthing by Deaf signers and mouthing by hearing bimodal bilinguals are different phenomena, although further study in this area is required.

The use of mouthing during the switch experiment was also investigated in order to explore whether there were differences between its use in ISL and BSL. Of 1860 items across all participants, 1838 were accompanied by English mouthing and 22 by mouth gestures. Only one sign, KISS, received a mouth gesture, and some participants alternated between mouthing the English word 'kiss' and the mouth gesture for KISS, while others used the mouth gesture for all trials of KISS. Although the numbers are too small for formal analysis, there were more mouth gestures in ISL (14) than in BSL (8).

Additionally, Fitzgerald's (2014) five mouthing categories in ISL: adverbial (behaviour non-manuals of position and transition); semantically empty (echo phonology, English phoneme based, non-English phoneme based); enaction (iconically transparent); whole face (universal facial expressions and idiosyncratic mouth gestures (idiomatic and gestural) could be applied to subsequent studies in mouthing within unimodal bilinguals. There is a need for more studies of Deaf cross-modal bilinguals to explore this further.

8.2.3 Code-mixing

Code-mixing was investigated through an analysis of the conversations between participants. All conversations included insertion of signs, doubling of signs, and insertion of fingerspelling. These data were analysed further using Deuchar et al.'s (2007) categories. The most frequently occurring type of switch was insertion. Although described as characteristic of colonial settings and recent migrant communities, in this study the findings clearly represented a more general consequence of asymmetry in the participants' proficiency in two languages.

In contrast with the circumstances in which insertion is found, congruent lexicalisation (Deuchar et al., 2007) has been described as characteristic of language contact between two typologically similar languages, which is the case with Auslan and ISL. Congruent lexicalisation might therefore be expected to be a common form of code mixing in these data, and indeed, it is difficult to distinguish examples of congruent lexicalisation from insertion in these data.

However, congruent lexicalisation is characterised in Muysken's typology as being found in contexts where the two languages are of similar prestige. In understanding how to best categorise the types of code-switch found, the substantial attrition of AISL among all the signers in the study is of greatest importance. A clear

distinction between insertion and congruent lexicalisation may be found only where language loss has not occurred. Additionally, and most likely connected to the attrition of AISL, it is evident from the content of the conversations, that AISL and ISL have lower status in the Deaf communities of Australia and Ireland than Auslan and BSL.

It should also be stated again that the population studied here are actually trilingual, with knowledge of English as well as of two sign languages. Switching involving fingerspelling is therefore also of interest. Switching to fingerspelling may be described as an example of switching to English. However, as Irish Sign Language and Auslan/BSL use different manual alphabets, these switches can also be described as switches to the 'domains' of AISL or Auslan. Characterisation of these switches and the relationships among the three languages in this population requires further investigation.

Green's (1998) work on mental load in bilingualism is also relevant to this study: embarrassment and sign finding difficulties were observed during many of the conversations, and mental load may explain some of the findings of both the interviews and the experimental study.

8.3 Sociolinguistic data

The sociolinguistic part of this study was based on interviews conducted in London, Melbourne, Sydney, and Belfast, with thirteen participants who were bilingual in AISL/ISL and Auslan/BSL, and on discussions between ten of these people in various combinations. The Outsider Paradox (Labov, 1972), power dynamics (Young & Ackerman, 2001) and reflexivity of the researcher (Sanger, 2003) were all taken into account in designing and carrying out the interviews. The interviews were semi-structured and were designed to find out about signers' experiences as unimodal

bilinguals: their life experiences, every day life, and their use of the two sign languages in contact. The conversations, on the other hand, were with bilingual signers with L1 ISL or AISL, with participants asked to reminiscence about their school days, where they first learnt AISL.

Codeswitching was explored in this study, not just to replicate the study by Deuchar et. al. (2007) but to explore some of the aspects of codeswitching in an ageing population with attrition of L1. The presence of 'supplied signs' and the extensive doubling in the conversations, as well as the higher frequency of code-switches into Auslan for example demonstrate this attrition. Additionally, congruent lexicalisation by means of free insertion of Auslan signs into AISL sentences point to this as well.

AISL in Australia has been oppressed in a number of ways. Its use is now restricted to conversations between old school friends, family members and spouses. It has not been used as a language of instruction in Catholic schools for many years. The use of AISL was actively discouraged in Australian Deaf Clubs and AISL is also no longer used in the religious domain by priests, who now use Auslan.

The situation is different in Northern Ireland where the use of ISL was accepted by the BSL majority, although it is no longer taught to hearing adults and there are no interpreters based in Belfast who interpret between English and ISL. Sasse (1992) and Crystal (2002) discuss the conflicts in attitudes and language loyalty which characterise a language in attrition. Sasse (1992) also discusses the locus of language decay – the semi-speaker: individuals who were 'on their way to becoming full speakers, but never reached that degree of competence due to the lack of regular communication in the language' (Sasse, 1992:61).

This study has highlighted the fragility of minority languages, and specifically, minority sign languages. Even with a whole community of users, the Dominican Sisters

and Christian Brothers inadvertently succeeded in triggering the language death process for AISL by removing one of - if not the most important - domains of use: the Deaf school. Fewer than one in every twenty Deaf people have Deaf parents (Woll & Adam, 2012), and so the Deaf school is an important linguistic and cultural repository for the Deaf community (Ladd, 2003, 2008).

The findings of the present study agree with Hua's view (2007) that language use and code-switching are a result of language choice, language preference and language attitude, all of which combine to influence family dynamics and family values. All participants lived in an area where BSL/Auslan was the dominant sign language, and there was great variability among the signers in how much loss of ISL/AISL had taken place. Whatever their language skills, all interview participants reported on the lower status of AISL/ISL compared to Auslan/BSL. These findings provide us with a compelling picture of language use and change in a minority sign language within a dominant sign language community.

Loss of prestige and reduction in domains of use (particularly for a sign language in community spaces such as Deaf clubs and in education) has resulted in language attrition, demonstrating how features of bilingualism in two sign languages parallel those of spoken language bilingualism. As AISL is no longer taught in schools and all of the Australian participants (with the exception of SM1, whose parents were Deaf AISL users) were over 60, it can be assumed that this language is in attrition and that signers of AISL under this age are most probably "semi-signers". The decline in AISL use which occurred with the discontinuation of the teaching of AISL in Australian schools (S. Fitzgerald, 1999), and the removal of such an important aspect of Deaf space (Berger, 2005) where Deaf people could use the language and be members of a sign language community, set in train the decline and death of AISL.

It is hoped that one practical outcome of these findings will be in the development and provision of appropriate services in AISL for this aging population: this information could be made available for service providers or interpreting services who have a client requiring AISL services. The Belfast ISL signers also live in a BSL-dominant community, and also exhibit attrition in their ISL, although the death of ISL is not threatened as it is the dominant sign language in the Republic of Ireland.

8.4 Weaknesses of this study

Language skills

The degree of signers' fluency in spoken or written English was not tested, nor was their fluency AISL and Auslan, although it would have been useful to examine these to see if individual differences were related to differences in language skills in these groups, and diversity in the data might relate to English language skills as well as skills in the L1 and L2. Greater knowledge about participants' skills through language testing might also explain the asymmetry in switching cost in the experimental study.

Switch task design

The items for the switching tasks should have been selected with the following in mind:

- a better balance between nouns and verbs. There was only one verb in the experiment, and responses revealed a difference between the use of mouth actions (English mouthing or mouth gesture) in the two languages.

- a selection of signs matched by parameter, i.e. it would have been better to select some signs which are similar in handshape and location, and others which are similar in location and movement. It would then be possible to examine which phonological parameter or parameters have a role in cognate facilitation.

Sample size

Because of the heterogeneous ages and backgrounds of the participants, the study would have benefitted had a larger sample been included. Although the target populations are small, it would have been possible to recruit additional ISL/BSL bilinguals from the west of Northern Ireland and the north of the Republic of Ireland.

8.5 Future directions

While Quinto-Pozos (2002, 2008) collected examples of contact between two sign languages, this has been the first experimental study of unimodal sign bilingualism. The findings of the present study lend themselves to further sociolinguistic and psycholinguistic research. The investigation of sign language bilingualism will contribute to a greater understanding of what is meant by bilingualism, and whether aspects of bilingualism are modality specific or not.

Hearing native signers have at times been studied as if their behaviour is representative of all sign-spoken language bilinguals. However, hearing bimodal bilinguals may differ from deaf cross-modal bilinguals and future studies need to take this into consideration.

Emmorey et al (2008) have suggested that the features found in unimodal spoken language bilingualism are the outcome of a shared modality; features of bimodal bilingualism relate to the use of two different modalities. However, the picture revealed here is more complex. This study has included Deaf signers who know two unrelated sign languages with two associated manual alphabets, and a common written language, and who exhibit a different pattern of mouthing than found in code-blends among hearing bimodal bilinguals. Further studies will need to look at unimodal bilingual signers with different pairs of sign languages. Additionally, the study of bilingual

signers with different degrees of fluency in their two languages would enable comparison, for example, of participants who are BSL-dominant (London and Belfast) and those who are ISL-dominant (Dublin and Derry) to see if the symmetrical cost in switching reported here is related to bilingualism in two sign languages generally, or whether it is the result of asymmetry in fluency, whether related to attrition or other factors.

Other studies exploring fluency, status of L1 and attrition in a sign language would broaden our understanding of these data. For example, reaction time in a sign naming task or language switch task could be explored with additional BSL/ISL bilinguals, or with other unimodal sign language bilinguals, for example elderly signers in eastern Canada who use both Maritime Sign Language (a dying language related to BSL) and ASL, or bilingual signers in Quebec, where LSQ and ASL are dialects of the same sign language but are used in conjunction with two different spoken languages.

This study has revealed similarities between sign language unimodal bilingualism and spoken language unimodal bilingualism, but also some differences; and also found differences between these Deaf signers who were cross-modal bilinguals, and hearing bimodal bilinguals. Thus this research will inform bilingualism research generally as well as the sign language field. This study also leads to further questions about characteristics of unimodal language contact with respect to the prestige and status of the language pairings, and about the characteristics of sign language contact.

This study is a first step towards a greater understanding of bilingualism and of which aspects of bilingualism are modality specific and which are not. It is hoped this new area of research will contribute to sociolinguistic theory and language processing research in spoken language as well as sign language.

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GLOSSARY OF TERMS:

AISL: Australian Irish Sign Language

ISL: Irish Sign Language

BSL: British Sign Language

Auslan: Australian Sign Language

Portsea: St Mary's Delgany School for the Deaf, Portsea, Victoria

St Gabriel's: St Gabriel's School for the Deaf, Castle Hill, New South Wales

Waratah: Rosary Convent, Waratah, Newcastle, New South Wales

Darlington: The Royal NSW Institute for Deaf and Blind Children in Darlington

VSDC: Victorian School for Deaf Children, St Kilda, Victoria

Elizabeth Street: the former premises of the Deaf Society of New South Wales

Jolimont: the former premises of the Victorian Deaf Society (now known as VicDeaf)

APPENDIX 1: INTERVIEWS

APPENDIX 1: INTERVIEW QUESTIONS:

The questions used to elicit discussion were:

(min 30 minutes)

1. What do you remember the most from your school days?

2. Who were your friends?

3. What was the funniest thing that ever happened in your school days?

4. What was the food like at your school?

5. What is your favorite food and why?

6. How did you travel to school, and how often did you go home?

7. Can you explain to me how to make your favourite recipe/Can you explain to me how to change oil and plugs in a car?

8.Where do you usually buy your clothes?

9. Do you think you got a good education at your school?

10. What was it like to go to the (Protestant) Deaf Club for the first time?

The interview included questions eliciting background information about the participants

1. How old are you?

2. When did you become deaf?

3. How did you become deaf?

4. Do you have any deaf family members (both immediate and extended)?

5. Where were you born? Where have you lived? Where do you live now?

6. What ages were you when you lived at these places?

7. What do you do to earn a living?

Education

8. Do you have any educational qualifications?

Self-reported language competency

9. What language(s) do you know and use regularly?

10. Which language do you prefer to fingerspell in?

11. How comfortable are you with using those languages (on a scale of 1 [not comfortable at all] to 5 [very comfortable])

12. How long have you known the various languages that you use?

13. How old were you when you learnt ISL/AISL?

14. How old were you when you learnt Auslan/BSL?

A final section asked for selfreports on language use

15. With whom do you interact on a regular basis to use the languages that you know? What situations? (religion, etc)

16. What sign language do you use most frequently?

17. Do you feel that there are times when you shouldn't use one of your languages?

APPENDIX 1: SYDNEY MEN INTERVIEWS:

There were three men from Sydney interviewed. One was interviewed individually in Sydney and the other two were interviewed in a pair in Sydney.

SM1 (individual)

(Quote 66)

1.   My parents' first language was AISL and there was a Deaf couple who lived in the next town. Because they went to school at Darlington they used Auslan. I was 7-8 years old when I learnt Auslan. My parents were educated in AISL. [names AISL native signer] is another Deaf person whose mother went to Waratah and was taught in AISL. I only used AISL with my mother as my father died young. When my mother aged she used AISL more. I have a Deaf brother, and his wife had to learn AISL when they first married as this was used at home.

(Quote 89)

2.   I interpreted at family occasions as different people used different sign languages. My parents used AISL, the in-laws and children used Auslan but as my mother got older she used AISL more.

(Quote 91)

3.   My use of AISL has reduced and Auslan has taken over in use, which is very sad. I regularly meet [names a Deaf emigrant from Ireland who is a native user of ISL] who lives in [names locality], with whom I refresh my AISL but I wish I could use it more. I only use AISL with my parents and brother but when I am teaching sometimes an AISL sign pops in and another teacher might notice that I have used a different sign and tell me that I have used the wrong sign. I explain that it is an AISL sign. Since I moved house, away from my local Deaf community which is used to my signing style, to [names locality] where people find my signing a little odd, and I have to explain that I am a native AISL user, and then they understand why. When I use the sign for CREAM (in AISL) I am

told that it is a rude sign in Auslan (SHIT) but I explain that it is with just the one finger and not two.

(Quote 12)

4.　　　I feel when I want to think about things or talk about my family, as I miss my parents, I think in AISL; or when I want to pray, I use the signs that my parents taught me, and I still think in AISL. I use the vocabulary from AISL when I pray.

(Quote 76)

5.　　　I am not sure if people think I have an AISL accent.

(Quote 70)

6.　　　I prefer to fingerspell in AISL than in Auslan.

7.　　　The letters S in AISL in the men and women dialects are different, as is the sign NEIGHBOUR.

(Quote 15)

8.　　　My parents at the dinner table used to argue about which sign was correct, because the Brothers and the nuns taught using different signs. My mother had stronger opinions and used to criticise my father's signing, as she felt her dialect was more beautiful. I think women are more dominant in the AISL community; they met more to do things together such as sewing. My father was a little more influenced by Auslan and did actually fingerspell in Auslan. The women tended to keep their signs

(Quote 24)

9.	During the wartime there were teachers who were Deaf who taught at Waratah who were positive role models for the Deaf girls. [signs the name signs of four Deaf teachers].

(Quote 82)

10.	Esther Hutchinson {name sign] was a classroom teacher who taught reading and writing and Agnes Lynch [name sign] taught sewing. There were others [proffers name signs but can't remember English names]). There was another woman from earlier on who taught in the 1920s[17]. There were no Deaf teachers at the boys' school on the other hand, and there was no Deaf teacher who came from Ireland to establish the school, unlike Sr Mary Gabriel Hogan who established the girls school. This resulted in a legacy where the womens dialect was stronger than that of the men's.

(Quote 51)

11.	I am proud I can use AISL; it is a beautiful language, but I am disappointed it is used less and less. I use it with my brother but it won't be passed on the next generation. I will keep it and I hope I can record it for posterity by signing whatever signs I can remember on videotape. Then it can be archived for the record so that future generations can see what language was used.

(Quote 33)

12.	In [names Deaf Club] Deaf Club, for example, I can't use AISL because everyone else doesn't know and I am the only user. On the other hand when I visited the Catholic Deaf Club I could use AISL. The Catholic Deaf Club was a

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[17] historical records suggest this person may be Marianne Hanney

safer place to use AISL as it would have been met with disapproval in the other Deaf Club. I remember when I was younger I used to go to two different Deaf Clubs, the Catholic club in Castlereagh Street, and the Protestant Deaf Club in Elizabeth Street. Both would be open on a Friday night. I remember my parents going to Elizabeth Street and I remember other Deaf people talking about me as 'that Catholic couple's son' when referring to me and I never felt comfortable about that. I used Auslan in the Protestant Deaf Club and AISL in the Catholic Deaf Club. I think that is interesting.

13.　　　When I am with my brother I use AISL.

(Quote 13)

14.　　　I think in my school we were the only boys in the school with Deaf parents who used AISL.

(Quote 1)

15.　　　When I left school I stopped using AISL and only used it with my parents, or in church or with visitors who could use AISL. If anyone uses AISL with me I will be happy to use it with them and other people can puzzle over what we are talking about!

16.　　　I think I did teach my school friends AISL.

(Quote 29)

17.　　　The school was an oral school but the Brothers knew AISL from before it was banned. Teachers would catch the boys using AISL and punish them if caught by banning them from watching a film or not allowing food. As my school was more of my AISL environment I don't think Auslan was used at that time.

18.   I think AISL has changed from ISL, I have to ask them what they mean
as I think the language has changed. I have a book on ISL at home which I asked
a friend who went to Ireland to get for me, which I used to compare between the
two sign languages – I can see a difference. I think the sign language here is
more influenced by the teachers. The sign for RIGHT is different for the boys
and girls for example. I think even though the boys and girls schools were next
door to each other, the sign language changed when it came to Australia.

19.   I would love to have the opportunity to get together one day with other
AISL users. I have a book here from Ireland ('Sign On' dictionary). I had an
older book which my mother had. I photocopied the book (the 1942 edition of
the AISL signs). The women in the book are Agnes Lynch and Esther
Hutchinson. Another name ('M" handshape) I cannot remember her name but
Marianne Hanney is also in the book.

20.   [Discussion on possible informants] Some of the older ones have passed
on. [Names AISL married couple] would be the older possible informants.
When I get home I will look up names of possible people. I know quite a few
CODAs, though – [names deceased AISL signer] had 4 children.

21.   I would be very happy to see a project which will document AISL.

SM2 (pair)

22.   I am aged 68 years old and started at St Gabriel's in 1948. Brother
Adams was my teacher and my daily routine was: up in the morning, get
dressed, Mass, then go to the veranda ready for a run followed by breakfast.
After breakfast, wash up all the plates, clean up the yard, queue up for inspection

with shoes polished and the to the classroom. Classes were from 9:00am until 3.00pm when we were all given an orange then we played sports in the garden, before we had showers then tea followed by prayers and then bed.

23.   Brother O'Neill was the principal of the school, and he was later replaced by Brother Duffy. I remember in 1954 there was a conference with the nuns from Delgany and Waratah along with the Brothers where oral education was discussed. The boys returned to school from their holidays and found that the school was oral and signing was no longer allowed. Brother O'Neill said there was no more signing and that boys who signed would be punished with a black mark if caught.

(*Quote* 28)

24.   Brother McBride and Brother O'Neill quarrelled over whether sign language should be used or not, and Brother McBride left the school and went to teach at another school.

25.   Sport included cricket, running, swimming, football, boxing and handball. My parents never really believed me when I told them about what happened in my school days.

26.   All classmates had name signs, and we still keep in touch through faxes and some I now play lawn bowls with. I remember that food was better on Sundays – especially jam tarts but I did not like mutton.

27.   Brother Regan during Lent stopped the boys from discussing whether Ford or Holden cars were better and told the boys to think more about Lent, and not to put sugar in their tea. He was a Jekyll and Hyde character. When I think about my school days, sport always comes up. The school holidays were in May, August/September and Christmas. My parents drove me to school. After school

holidays boys would return to school and talk with great excitement about their holidays.

(Quote 58)

28.   I started school when I was 5 or 6 years old, and I learnt AISL and left school at 16 years old.

(Quote 34)

29.   When I first went to the Deaf club I was told by other Deaf people that my signing was wrong. Mr Engel (the Welfare Superintendent at the Deaf Society of New South Wales) fingerspelt a lot. The Auslan dictionary was published later. When I am at home with my wife I still use AISL.

Note: SM2 was able to recite the Hail Mary.

SM3: (pair)

30.   I am 70 years old. I was born in [names town] near [names larger town]. I started school when I was 4 years old in 1944, and stayed at school until 1956. I remember on my first day I met a Brother, was taken to my bedroom where I unpacked my clothes and put my clothes in the wardrobe, then to meet the other Deaf boys who became my friends the same age as myself. I learnt to sign from them and was very happy with the boys who became my close friends. We were later taken to the dining room where we washed our hands and waited outside on the veranda before going into the dining room. I learnt my table manners from the other children. After the meal we packed everything away and we played handball or soccer after meals. Sports was an important part of school, and particularly rugby. Brother McBride also told stories.

31.   I loved my school days, and my school friends are now old friends, but some have been dying, or are ill with old age, but I have memories of my school days. The Brothers used to say prayers over the boys before going to bed. At meal times tables seated 8, each with a senior boy and the smaller boy would serve meals.

32.   To get to school, I caught a train to the city and my aunt met me at the station to travel home. It was hard to communicate with my parents as I only came home once a year. Mervyn Carroll was a Deaf teacher. To get the teachers attention the boys would tap on the teacher. I still use AISL. I learnt by watching the other boys fingerspell and sign – we learnt from each other. I have two sisters, and my family learnt to fingerspell in AISL but my parents never learnt – we communicated by writing.

(Quote 71)

33.   I moved to Sydney when I left school and went to the Deaf Club in Elizabeth Street when I was 20 and learnt a new sign language. Due to my age I have not really kept up to date with what is going on with Auslan. My wife went to Darlington and used Auslan at home and not AISL.

Note: SM3 was able to recite the Hail Mary.

APPENDIX 1: MELBOURNE MEN INTERVIEWS:

34.   There were two men interviewed in a pair, one of whom participated in a pilot interview earlier. The pair interview was the joint-longest interview – a total of 90 minutes. There were many anecdotes in AISL not relating to school days which have not been included in this transcription as well as many

examples of AISL signs which is more useful for a language documentation project.

MM1: (individual)

35.   AISL is really a language taught at Portsea, Waratah and St Gabriel's. The first school was Waratah and Portsea was originally going to be a girl's school but as it happened it is a small world my mother was on a committee and she asked Mother Mary Madeleine if she would include boys up to the age of ten after when they could be sent to St Gabriel's. It was agreed at a later meeting that boys and girls would be admitted. AISL was taught by the nuns who had previously taught at Waratah along with girls who from that school (who then moved to Portsea when it opened).

(Quote 84)

36.   St Gabriel's was AISL but more Cabra, and the signs used were more grammatical and had English influence, more so than the signs at Waratah [gives examples, one in AISL without English markers and another in AISL with English markers]. Brother Allen and another Brother who came to Australia in the 1920s from Ireland to establish the school brought the St Gabriel's variety of AISL. Waratah signing seemed to have its own variety, diverging from its ISL origins, but the St Gabriel's variety stayed closer to its Irish origins until around the 1950s when it changed to an uniquely Australian dialect, although the fingerspelling alphabet remained the same [gives examples].

37.   I started at Portsea at the age of 7 in February 1948, and was the first male pupil at the school. I did not know anything about sign language as I was

hard of hearing and so was able to speak. The school however gave me a language with fingerspelling and sign language, and it was the same for the other children [names other children] whose first language was established in those early days at school. The girls from Waratah already knew sign language but [names pupil] was different as her sister [names pupil] went to VSDC for a short time before she went to Portsea. She did not know AISL until she started school, where she and I learnt AISL, so her first language is AISL. So I was 7 and learnt a new language.

38.   Most of the boys who went on to St Gabriel's [names pupils] and [names a Deaf man who was educated in Dublin] use AISL exclusively with each other. There is an overlap in the men and womens' dialects. I have good memories of older people who used AISL, people like [names deceased AISL married couple].

(Quote 72)

39.   When I first went to the Deaf club in Jolimont, I started using Auslan and that is when I first learnt the two-handed alphabet, and I had to learn to read back from the fingerspelling. I made a mistake in becoming friends with [names a deceased Auslan Deaf person] whose fingerspelling was very fast but I perservered and managed to learn to understand Auslan fingerspelling. The hearing welfare officers such as Mr Reynolds and Mr Parkinson signed at a normal speed, which I was pleased to be able to understand, and before long I began to sign Auslan. When I first met [names an Auslan person] he did not use much mouth movements, as if he came from the 1940s, but [names a deceased Auslan person] was a little more natural with sign language and I absorbed their way of communicating.

(Quote 75)

40.   I do believe I have an accent in AISL. I think I am unique in that I am known to play with the language, and people make up signs. I am also fluent in American Sign Language and so am able to play with signs. People have copied me but that is OK, that is a part of language use. I feel people can see my accent in my signing. I feel also I am able to keep the two languages separate because AISL is a language of its own and it is not just used for religious situations, just as Auslan is a language of its own.

(Quote 85)

41.   I think it is very important for Auslan Deaf people to learn AISL. It will enable them to be able to communicate with people internationally, mainly because of the one-handed fingerspelling alphabet. The sign vocabulary of AISL is less important because it is really an Irish language although in the north of Ireland they use BSL. I think AISL has given me an understanding of nouns, verbs, adjectives, adverbs and the structure of language which is an amazing thing (gives examples).

(Quote 42)

42.   I have tried to use AISL to some people who I went to school with [Portsea] but sometimes I have been rebuffed – I was stunned but I think they feel they don't want to be seen as a part of a different language group, or they associate using AISL with being children. I think AISL is a language in its own right. I notice that my peers feel uncomfortable when I use AISL, but with older people such as [names a married AISL couple], they were fine about it. I notice that people who went to Waratah and St Gabriels are also fine about using AISL, but my peers [names names] are a little mixed up about how they feel about

using AISL. Sometimes when I use AISL, I receive Auslan in reply with these peers.

43.   I don't see ASL as a substitute for AISL.

(Quote 35)

44.   I was once told off in Jolimont when I taken there by [names a deceased Auslan user]. At that time my fingerspelling was not very good. Mr Reynolds the Welfare Superintendent asked me in Auslan fingerspelling if I was a Victorian [a resident in the State of Victoria], and my friend said I couldn't read Auslan fingerspelling so Mr Reynolds asked his question again in AISL. He then announced me to the crowd in the Deaf Club. I then saw my friends [names two AISL signers] and in my excitement I used AISL to greet them. An older woman who was in the Deaf Ladies Auxiliary [names deceased Auslan signers but is not sure] came and told me off and said I was not allowed to use AISL in the Deaf Club, and this was in front of a lot of people. I felt really put down. My AISL friends and I went to another place in the hall and we had a talk about whether it was OK to use AISL or Auslan. But I felt that if it was OK for people to be bilingual, speak to their children in Greek and other people in English, then it should be OK for Deaf people to use different sign languages. I just had to remember that I was not allowed to use AISL in Jolimont. I will never forget this experience. However that experience made me all the more determined, I would use AISL when I met with people from Waratah and St Gabriels, and when I met with my friend [names deceased AISL user] I always used AISL with them. We had a protocol in that if we were talking in AISL and an Auslan Deaf person came to join the conversation, we would change to Auslan. I felt

uncomfortable with using AISL with Auslan Deaf people around but there were times when I got away with it.

45.   I am surprised to learn that ISL is still very much alive, being researched and still in use by adults and children in Ireland. Boys and girls who are born Catholic are usually sent to school in Dublin and taught in ISL, but when they return to school they usually change to BSL without any difficulty. The people in the North are true bilinguals but when people from the south go to London and other places they do learn BSL.

(Quote 56)

46.   The future of ISL is strong although it is sad that the signs from Portsea, Waratah and St Gabriels are disappearing but there are still memories of these signs, while the language lives on in Ireland.

MM1 (pair)

(Quote 17)

47.   The signs used in St Gabriels and Waratah were different. In fingerspelling, the letters 'S' and 'T' differed between the two schools, even though they were not geographically far from each other, and at St Gabriels they tended to keep the Cabra variety while there was more change in the Waratah variety.

(Quote 92)

48.   I feel that Brother McBride used a lot of nouns, verbs and adjectives [sign forms which were English morphology markers] in his AISL whereas at Waratah it seemed to be a more natural sign language. Many old boys of St Gabriel had excellent written English skills. Fingerspelling and signing

combined to give people an excellent level of English skills. With the advent of oralism, this deteriorated, as it did with the girls at Waratah. There was a book published with Waratah signs with relgious signs. In Mass everything was signed and there was less fingerpelling and more signing, whereas outside it was a mixture of both.

(Quote 80)

49.   Name signs at St Gabriels used both hands, one for each initial (gives examples). At Waratah, name signs tended to relate to the person more and their English name or characteristics such as JO for Joy or JU for Julie or a letter signed in a particular place such as M (on the opposite hip) for Maureen, but there were some two-handed name signs. If a pupil grew up with a particular name sign, a similar name sign was never used until after that person left school. With Waratah girls, the name sign tended to be more permanent.

(Quote 81)

50.   The nuns' name signs tended to be the initials or some of the letters of their name e.g. LW for Sister Lawrence Mary, MW for Sister Mary Matthew, NE for Sr Madeleine.

51.   Many Protestant Deaf people in Sydney and Brisbane use AISL signs, and they articulate AISL name signs correctly. Sometimes name signs change over time and the origin is lost. I believe that this comes from Cabra. Brothers tended to have the letter of their first name on the arm at different places, as opposed to the nuns fingerspelt name signs. I find it strange that Waratah and St Gabriels teachers never really met to discuss the signs they used over the years. The dialect used at Portsea really came from the older girls who started schooling at Waratah. When boys who left Portsea went on to St Gabriel's they

had to adjust to a different dialect of AISL. When I started at Portsea I was very close to [names person] who I learnt AISL from as she was older, but I became good friends with other children who didn't know AISL. After lights out we would sign to each other and tell stories and the nuns used to tlerate this, and it was the same for the girls. There was no sports as there were no sporting fields so I remember us all talking and learning to sign from each other. I am grateful to a girl [names girl] for teaching me AISL that she had learnt from Waratah.

52.   During school holidays we would get the bus to Frankston then train to Flinders Street, and when we arrived at the station parents of the other children would ask me to interpret conversations between them and their children. That was when I began to interpret for other Deaf children. Later I began to do ghost writing for Deaf people in the community. At school there were boys who were from Tasmania who were at the school before we arrived from holidays. Holidays were Christmas, Easter and August every year. We all understood each other and we played games with signs. Some children were not able to communicate with their family and while they could use basic lipreading and gestures, they could not have an in-depth conversation with their parents.

53.   There was a special bus from the gates at Portsea which took us to Frankston, then the electric train to Flinders Street where parents would collect us. We would return the same way. We paid fees to go to Portsea and the other schools which covered meals and everything else. VSDC was a Government school but the boarding school fees were paid by the parents. I heard as a child how awful the Protestant children were at VSDC. MF2 went to VSDC but never said anything! Later on I realised that the nuns encouraged that attitude. There were no sports at Portsea, but there was at St Gabriels.

(Quote 61)

54.　　　I am more comfortable with AISL. I started school in 1948 and AISL was my first sign language. I then went to a hearing school afterwards. I met a Deaf man [names Auslan user] and it took me a long time – about nine months before I felt fluent in Auslan. People were too fast, and I wanted to become a natural signer.

(Quote 65)

55.　　　AISL people are bilingual, more so than Protestant people. In the Catholic club people would use AISL and then go into the Protestant Deaf Club and use Auslan.

(Quote 36)

56.　　　Deaf people would not accept that I was bilingual and I was abused several times by Protestant Deaf people, and accused of 'spying'. This radicalised my attitude to AISL, and I use whatever language that people are comfortable with, and whenever a non-AISL user joins the conversation, we change languages.

57.　　　It is more common in NSW and Queensland that people can spot an AISL user. I feel that AISL arrived in Australia before FJ Rose did.

58.　　　AISL will continue, I know ISL users are bilingual as well especially when they travel to Northern Ireland. I am proud of my school because of my heritage. Deaf Catholic centres should use AISL but they never do.

(Quote 10)

59.　　　It was the main language for the community for so many years but the priests use Auslan and AISL is disappearing. AISL is dying – I am disappointed.

People [names of AISL signers] have their own circle of users but in the community, use Auslan.

(Quote 52)

60.   Auslan signers are lazy, those who went to VSDC [names Auslan signers] are lazy as they don't understand AISL. People have gone to study in the USA and learnt ASL but never bothered to learn AISL. I believe if a reunion was held some people would come to rediscover their heritage. Cabra is still there. Australians are too laid back and too lazy to learn another language.

MM2 (pair)

61.   I can remember individual signs that were different in ISL and AISL (gives a variety of examples). Some Brothers who worked in Ireland and were remembered by Irish Deaf people had different name signs in Australia from when they worked in Ireland.

(Quote 63)

62.   When I left VSDC to go to St Gabriels I had to learn a new sign language and fingerspelling system, but I was able to ask other boys what the different signs meant. I was 11 years old and I was able to ask some of the younger boys as young as 8 years old what the signs meant – they seemed to know the grammatical words that were signed in that variety of AISL. Brother Shepherd was my first teacher and when he taught us we had to have our hands behind our backs. Brother Cahill was the best signer and had beautiful hands, he was very good at religious signing and was able to show English on the hands. He objected to oral education. The Brothers used signs from Cabra from the early days of St Gabriels. When the school became oral, this was reduced. I

remember seeing Brothers use different signs that were similar to these used by the nuns and I am not sure how that happened.

(Quote 88)

63. I can see that AISL has disappeared and that younger people are more influenced by English. I would write things at school and these would be corrected by the teacher. Brother Shepherd and Brother Cahill who was very strict were my teachers.

64. I remember a boy helping himself to extra bread and jam before a meal and was caught by a Brother and he was sent back to his seat, and accused of being greedy – he had pleaded hunger.

65. I remember in the class room we would talk behind the Brothers backs and the teacher would turn around and throw a piece of chalk at us – we would ask how they knew we were talking and they would say they could hear us moving. I would go home in the school holidays. Boys before then stayed the whole year. I would fly home to Melbourne – my mother paid the £5 fare.

66. St Gabriel's was a good education – we had history, social studies, maths, religion. We learnt to write simple English but the teachers were very food, and made me more aware of the world. I read the papers and I feel that some Deaf people are jealous of my education.

67. I am 65 years old. I started at VSDC when I was three and a half years old. I was born Deaf and there is no history of Deafness in my family. I was at VSDC until I was 10 years old and then I went to St Gabriels where I learnt AISL – so I am bilingual. When I left school I was a bootmaker before I went

overseas in 1969, when I returned I worked in a dairy and then in the Australian Government Public Service.

(Quote 4)

68.   I mostly use Auslan now, but when I am with my school friends [names AISL people] I also use AISL. I have been to Ireland and used AISL there. I am more comfortable using AISL.

(Quote 37)

69.   I have been told off for using AISL – I have been called a spy. I am now used to it and I just use AISL whenever I want to – people seem to accept this. I can spot a fellow AISL user by the language they use.

(Quote 30)

70.   I feel sad about oral education and later cued speech – they have destroyed AISL. They did ask around in the Deaf club 20 years ago whether people would use Auslan or AISL – the older people objected to using AISL. I wasn't there but most of the people are dead now.

APPENDIX 1: SYDNEY WOMEN INTERVIEWS:

71.   This was the joint-longest interview – a total of 90 minutes. There were many anecdotes in AISL not relating to school days which have not been included in this transcription as well as many examples of AISL signs which is more useful for a language documentation project.

SF1 (Group)

(Quote 59)

72.   I went to school when I was 5 years old. I don't remember knowing whether I was Deaf or not but I started signing when I started school. I had a Deaf teacher and she signed to me – my parents watched the class before they left, I think they were satisfied with my learning in sign language. I learnt to sign quickly and I enjoyed learning sign language. I remember at 6 years old I wrote a letter to my parents and the nun corrected my English and taught me better English (gives examples of English markers in AISL).

(Quote 25)

73.   Agnes Lynch was the best teacher I had because I learnt quickly from her. Afterwards I had a hearing teacher but it was a bit slower with more repetitions before I understood. I am disappointed and sad that I was not taught more by Deaf people.

74.   In my class I had many girls who went then went to Portsea when the school opened. In my class were [names AISL classmates]. In 1948 there were different girls in my class after these girls left. I was taught my Sr Ann who also taught me for my first Holy Communion and confirmation, until I left school. When sign language was banned in school it was very hard. We would go upstairs to the bathroom, there were three cubicles and we would go and lock ourselves in one and talk and laugh with each other. At school we also used to tell each other stories to see if other people would believe us. On Ephpheta Sunday (the day that Jesus cured a Deaf man) we would have a lovely meal with lollies and a treasure hunt.

75.   In my time I would get a train to Newcastle from Central Station and then change trains at Newcastle for Waratah. I would return to Sydney from Newcastle. I remember during one holidays my mother had visitors. I started to cry because I felt left out and. When it was just my family it was OK but not with other hearing people, everyone would forget bout me. I usually didn't want to go back to school but once I got to Central Station I would be happy to see my friends again. Maybe I was just confused and emotional.

76.   Sometimes in school I had to wait in class for others to understand or finish their work. I feel we could have advanced more but sometimes I feel the other students held us back. When I came home my mother would teach me things and add more to my education. I feel a bit disappointed with my education as many of the teachers were not qualified to teach. At school we did not have much input from the outside world – we did not even have subtitled TV which would have enabled us to learn more. I find that we are all still learning.

77.   I always wanted to be a machinist but my mother said I should think about working in a bank. I felt I could not do this as this probably too hard, but she still encouraged me to go. So she said why didn't SF2 and I go together and asked the nun at school what she thought. She thought we would be able to get a job. We then went to the Deaf Society but Mr Engel (the welfare superintendent) said he didn't think we could work in a bank, it would be too hard. It was August and we were wanting a job around Chrtistmas. My mother and SF2's mother went to speak to the bank manager who had never heard of Deaf people doing this work. We all went for an interview and given a 3 month trial and then given our jobs. I think we were the first Deaf people to work in a bank in Australia.

(Quote 41)

78.　　　　When I left school I went to 5 Elizabeth Street where they used Auslan and I had to ask people what they were saying. I went with my school friends and we would have secret conversations but with the others we would use Auslan. Some people asked me to use Auslan and not AISL but I do think – why don't they learn my language – I learn your language and you learn my language.

(Quote 18)

79.　　　　I remember St Gabriels seemed to have more signs than Waratah [gives examples of different country signs in St Gabriels dialects, which were fingerspelt in Waratah dialect]. I don't understand why as the boys went to Waratah too until 1922. Both schools had the same fingerspelling system but the letter 'S' is different.

80.　　　　I am now 68, and I was born Deaf. My mother did not know I was Deaf and does not know why I am Deaf. At one time I thought I was Deaf from rubella but the eye specialist had a look and said it was not possible. I don't blame my mother at all.

81.　　　　I live in Sydney. When I first married I worked in the bank until I got married and then I worked for the Pharmaceuticals Benefit agency for 18 years, and I am now retired. I enjoy retirement!

(Quote 2)

82.　　　　I mostly use Auslan now but if am stuck I use AISL. My husband understands AISL but I don't really think about it, it comes naturally. I actually prefer AISL. I have always known how to fingerspell in Auslan but I could not read back until I went to the Deaf club.

(Quote 31)

83. I don't feel embarrassed to use AISL in the Deaf community. My family all use AISL and when I first got married my husband said they had to learn Auslan but I said no, he had to learn AISL as he was the only one and everyone knew AISL. He learnt very slowly. All my hearing family use AISL but now they are not as good and communication is getting harder.

84. I have met 3 Deaf men from Ireland in Bangkok and was able to communicate with them, it was mainly St Gabriels signs. My husband first spoke to them in Auslan and they didn't understand each other and I was able to talk to them.

Note: SF1 was able to recite the Hail Mary and the Lord's Prayer in AISL

SF2 (group)

85. I remember I went to school in 1946 – I was nearly 6 years old. I can't remember what I saw but I remember everything was very big. I remember the fingerspelling, but I can't remember how long it took me to learn to fingerspell fluently. I loved going to school. I remember writing English and sometimes I did not understand my teacher's correction but we did not know we had our own language – Auslan. I know after I left school I thank God they taught me English but I look back and wonder why they did not teach Deaf children like they taught hearing people. But thank God they taught me how to write in plain English which I appreciate.

(Quote 23)

86.   I feel that having a Deaf teacher is better. Deaf always understand and feel comfortable with each other but I thank God for the nuns who taught us sign language and not orally only. We did not have a high school education though.

87.   I remember when SF2 and other friends disappeared into the bathroom (when they locked themselves away to use sign language) and I could not find them but I saw through the crack at the bottom of the door that they were signing. We used to tell stories about films and we used to embellish them to make them more interesting. Every Ephpheta Sunday we had a beautiful meal, a roast dinner. I was always excited to go home as I had not seen my parents for months but I missed my friends when I was on holidays. When I was back at school I also missed my family but we used to talk excitedly when we got back to school and catch up on the news. My mother would run alongside the train as it pulled out, waving at me, but once I was at school I was OK. When I was at home with my family though, I would just read comics.

88.   I am not 100% happy with my education. We did not have a high school education, we were educated perhaps up to Grade 6 standard. If my teachers had been qualified and I had a high school education things may have been different. My younger brother would laugh at me when I wrote letters, and say that I wrote like a baby. I was hurt but looking back I understand why – feedback is important. I was really motivated to learn more when my children were growing up – I would receive official letters and not understand them, and my children would explain things or I would use a dictionary. My first job was with the Commonwealth Bank of Australia in Elizabeth Street. SF1 and I chatted with each other while our mothers and the welfare officer spoke to the manager for us, we did nothing during our job interview.

89.	I remember in the Catholic Deaf club, the boys would be on one side, and the girls on the other. I had three brothers so I was used to boys. The boys weren't too pleased to have me join them, they wanted to talk about cars.

(Quote 43)

90.	When I heard there was a Protestant Deaf club, I walked there as it was not far, and found that a different sign language was used there, which I did not understand. I practised Auslan but I still could not read back fingerspelling and they would tease me. I remember I would be asked again and again for the sign for milk. I would sign it to them innocently and they would laugh at me. It was not until I learnt about the facts of life that I understood why it was so funny – I was young and assertive and I was mad! Later when I was asked, I would show them the Auslan sign and I would be asked again for the AISL sign and I would say I had forgotten. But I loved going to the Protestant Deaf Club; it was more mixed, whereas the Catholic Deaf Club was different.

91.	It was not until I learnt about the facts of life that I understood why it was so funny – I was young and assertive and I was mad! Later when I was asked, I would show them the Auslan sign and I would be asked again for the AISL sign and I would say I had forgotten. I loved going to the Protestant Deaf club, it was more mixed, whereas the Catholic Deaf club was different. My parents never told me about the facts of life as they thought my school did, and I never wanted my children to go through what I did.

(Quote 19)

92.	I think St Gabriel's signs look ugly. When men and women are together, they tend to follow St Gabriel's signs. My husband went to Darlington. But when I sign with St Gabriel's boys, I sign my way, and not theirs, and if I don't

understand I can always ask what they mean and show them the Waratah sign. I like to sign my way, I am selfish!

(Quote 86)

93.   Waratah had separate signs for LADY and WOMAN, and others such as DIE, DEAD and DEATH (with English tense markers). I feel it was a well organised language. The letter 'T' is also different, which is surprising as both dialects are Catholic and came from Ireland. I can see an influence of English in AISL though. If I wanted to talk about someone I could fingerspell under my coat!

(Quote 22)

94.   I loved talking to the older Deaf staff at Waratah – I thought they knew everything.

(Quote 39)

95.   Some people think it is rude to use AISL, some people think we are spying on them or talking about them, but I don't feel embarrassed.

96.   I am 68 years old, I was 3 years old when I started school. My aunt says I am Deaf from meningitis but my mother says she didn't know why I am Deaf. No one in my family signed. I worked in a bank from 1956 and worked for two years until I got married, then I did a few jobs before working at the Australian Taxation Office for 22 years, and I am now retired.

97.   AISL is my first language, I am proud of it, I love it but I don't use it every day so I am not as good. Auslan tends to take over. [names an Auslan user] always said Waratah signs would take over but I never thought it would happen. I look back and realise I have always had a natural sign language.

98. My mother could fingerspell in Auslanbut she was slow and easy to read back. When I left school I had to learn but I still find it hard to read back fingerspelling, Some Deaf people are too fast.

(Quote 40)

99. When Waratah girls and St Gabriels boys get together I use AISL but if the other people don't know AISL I use Auslan otherwise they will think I am spying on them or talking about them. I don't use AISL but I am not embarrassed to use it, I am proud of AISL.

(Quote 6)

100. When my daughter wanted a private conversation [with SF2] she would fingerspell in AISL as my husband and son could not read AISL fingerspelling. My husband could fingerspell in AISL to me but said I was too fast, but if I fingerspell slowly it is too tiring!

101. I remember once I went to a wedding and was using AISL and an Auslan Deaf person was shocked to see me use AISL as he did not know I was a native AISL signer.

(Quote 44)

102. I don't like to hurt or ignore people so I am happy to use Auslan as I think it is fair to everyone. I went to Ireland once with [names partner] and spoke with Deaf people there – it seems the signing has changed but there were some similar signs. I have a book.

Note: SF2 was able to recite the Hail Mary and the Lord's Prayer in AISL

SF3: (group)

(Quote 64)

103.   I started school at Darlington at 4 years of age and when I was 10 years old I was moved to Waratah where I had to learn a new sign language.

(Quote 68)

104.   I started school at Darlington at 4 years of age and when I was 10 years old I was moved to Waratah where I had to learn a new sign language. Another girl from Darlington started the same time as me [names person]. Darlington was a very good school, where we were taught to speak and sign but when we went to Waratah there was so speech. I could speak a bit with my family but not with other people.

105.   My teacher was Sr Madeleine and my friend [names AISL user] and I had a good education. It was just wartime and I only had hearing teachers. After the war I came back but all my friends had left school. I cried and wrote to my mother and said I wanted to leave school as my friends had gone. My teacher telephoned my mother and said war was coming and that I had better go home. I was happy to go home and find work.

106.   A nun tried to get us a bursary because some of us were clever but the Government never gave it to us. I could type well at school but when I started work I was employed as a machinist.

107.   Those in my class have all died [names AISL classmates names and uses name signs]. I think I am the only surviving one. We had green badges for good conduct but we had them removed for things like talking to the boys. We loved to tell stories – we used to serialise stories. A girl [names AISL user] used to tell very good stories. Food was the best on Sunday when we had a roast, but from

Mondays to Saturdays the food was not so good. We used to get the train from Sydney Central direct to Waratah. My brother went to St Gabriels. We stopped using Waratah signs after leaving school and used Auslan, following the wider community but we remember how to recite our prayers.

(Quote 14)

108.   Most people had hearing parents but my brother's wife came from a Deaf family [names AISL Deaf family]. There are really two Deaf families in the AISL Deaf community – the [names SM1's family] family and the [names a Deaf Sydney family] family.

109.   I am now 82, and I was born Deaf. I live in Sydney and grew up in Darlinghurst, and worked as a machinist until I married.

(Quote 69)

110.   I like AISL – I find it easier to use, although Auslan fingerspelling is a little hard to use. Some people are too fast [names Auslan user] is too fast, I can't keep up.

(Quote 5)

111.   All my children are hearing and they use AISL, but when they meet with other Deaf people they have to use Auslan.

(Quote 45)

112.   When I am with AISL friends I use AISL but in the Deaf club I use Auslan. Most of the time I use Auslan. If I am around Deaf people who use Auslan I would feel a bit embarrassed to use AISL (this was met with horror by SF2).

Note: SF3 was able to recite the Hail Mary and the Lord's Prayer in AISL

APPENDIX 1: MELBOURNE WOMEN INTERVIEWS:

There were three Deaf women from Melbourne. One was interviewed in London individually while on holidays, and another two were interviewed individually and in a pair in Melbourne.

MF:individual

(Quote 60)

113.   My name is [gives name] nee [gives maiden name]. When I was 5 years old I first learnt AISL when I went to school at Waratah near Newcastle

(Quote 26)

114.   I was taught by the Domincian Sisters and I was educated in sign language – and had Deaf teachers – Agnes Lynch, Sarah Page and Esther Hutchinson who were very good teachers. [shows name signs]. Sarah taught the children and I remember her very well. My parents could not sign. My sisters could all fingerspell but I can't remember teaching them but they all remember me teaching them. I am seventh in a big family. I asked my mother why I was Deaf and she said it was possibly rubella or measles, but I kept asking 'why' and she said it was God's will.

(Quote 3)

115.   My husband can sign in AISL and loves using the language and fingerspelling. When we are with friends in [names holiday location] he uses AISL and I keep telling him to use Auslan because other people cannot understand AISL and they ask us what the signs mean and what we are talking

about but he continues to persist in using AISL to me. I use Auslan at home with my family, with my (Deaf) son, daughter in law and their children who are hearing. They are not allowed to speak at the table and have to use Auslan because my daughter in law has Deaf friends who don't understand their hearing children, and she did not want that situation in her own family. I think that is a good idea. Sometimes I use AISL fingerspelling when I am driving and can be quite fast. Sometimes for fun I don't repeat myself if my husband does not understand me!!

116.   All my sisters can fingerspell except for my eldest sister who was too busy looking after her children, and did not have time. So I communicate with her by writing on paper. Now with the telephone relay service I feel I can talk to her better but when the family is all together it is not the same. My parents could not sign well, my mother signed a little bit and I communicated with my father by writing on paper.

(Quote 38)

117.   It took me a long time to learn how to fingerspell in Auslan. After I left school I had a bad time because I went to the Deaf Club and I saw a friend who I spoke with in AISL and another Deaf person thought I was spying on them and told me I should not use AISL and that I should learn to use Auslan. This was in Melbourne. So I practised fingerspelling. It took me two years before I felt proficient enough – it was very hard, not easy for us at all.

(Quote 77)

118.   I think I have an accent, I cannot think of any specific examples but I sometimes slip and use an AISL sign in an Auslan conversation.

(Quote 11)

119.   I use AISL when I say the Lord's Prayer but when I see it in Auslan I cannot follow it – I feel mixed up as it is my habit to pray in AISL. (recites Lord's Prayer and Hail Mary). I find that AISL is different from ISL. I feel more comfortable and relaxed when using AISL than when I use Auslan. Sometimes with Auslan fingerspelling you have to stop what you are doing to fingerspell.

(Quote 57)

120.   It is sad to see that the language is decreasing in use, because of the closure of the school but I know that the language is alive and well in Ireland.

(Quote 7)

121.   My friends [names friends] and I use AISL when we meet, there are just the four of us. It is good that the language is still alive and I can use it.

(Quote 46)

122.   It is better not to use AISL in the Deaf Club. People think that you are talking about them. Although nowadays people are more accepting, it is still better not to use it. It is nicer to use Auslan (so that everyone can understand each other). In times past I remember people commenting on Catholicism and not eating meat on Friday, 'those Roman Catholics' and I had to put up with it and ignore it but it seems better now and people are interested in who you are – I am pleased to see this.

123.   There has been a Deaf man who moved to Australia from Ireland but I did not see much of him. Once I went to Ireland I felt at home and was able to enjoy using AISL. It was lovely and I felt camaraderie with the people in Ireland. Once in Twickenham when I was staying with friends, I met Deaf people who saw me using AISL and they thought I was Irish. They were pleased

to see ISL and I had to explain that I came from Australia, and I enjoyed meeting them.

Note: MF1 was able to recite the Lord's Prayer and Hail Mary in AISL.

MF2: individual

124.   I am 68 years old and I am Deaf from birth. – I don't know why I am Deaf. I think my parents were related, as the name Sullivan comes up on both sides of the family. I have a deaf sister [names sister], and Deaf [names relatives]. I was born in [names country town in same state] in Victoria, about 6 hours drive from Melbourne. I was born there because my father was looking for work. I have lived in [names birth place], Melbourne, [names another country town], then when my father finished his army service and got a job, we moved to [names larger country town] where he built a house for the family.

125.   I am now retired since early last year. I did a lot of different jobs, I was a public servant in the motor registration office where I did typing, then I moved to Sydney, where I worked with Deaf children, then to Newcastle for 6 years, then I moved back to Sydney for one more year where I worked in the tuck shop of a hearing school and I have lived in Melbourne where my family lives and then I worked at [names a Melbourne department store] for 24 years then I became a pastoral worker at the Catholic Deaf centre. I visited people and prepared children for their First Holy communion and confirmation and then I retired after ten years but I still volunteer.

(Quote 67)

126.   I feel I prefer Auslan fingerspelling as it is my first language. I learnt Auslan as my first language and I do feel more relaxed in Auslan. I started

Auslan when I was 6 when I went to VSDC and then I went to Portsea when I was 8. My mother could fingerspell before she married, but I never asked her how. I use AISL when I am with Deaf people who use AISL (shows example of AISL signs). I use Auslan every day and don't really miss using it.

(Quote 83)

127.   The AISL I use has a strong influence from English.

(Quote 47)

128.   I don't feel there are any situations where I shouldn't use AISL but I enjoy using it with my friends who can use AISL. I can't remember any situations where I shouldn't have used AISL because I already knew Auslan when I learnt AISL and was never in a situation where I was told not to use AISL. I did learn new Auslan signs from other Deaf people.

(Quote 78)

129.   I don't feel I have an AISL accent but I do know that my AISL friends have a strong accent. [names names] have a strong influence from AISL and cannot change. When they do readings in Mass they follow AISL and don't really use Auslan signs. Waratah signs and St Gabriel's signs are different. I still remember AISL and don't have any difficulty. When I met Deaf people in the Catholic Deaf Club in Dublin I was able to communicate with them, it was very interesting.

Note: MF2 was able to recite Hail Mary and the Lord's Prayer in AISL with some interference from Auslan.

MF3: (individual)

130.   I am 69 years old. I think I am Deaf from encephalitis. I was in hospital

for 3 months and my mother did now I was Deaf until I was 2 years old my

grandmother noticed I was different from my cousins and spoke to a priest and

asked hm to speak to my mother who was heartbroken. She took me to a doctor

who confirmed the diagnosis. I have two cousins on my mother's side but I

never met them and after my mother died, it was not possible to get in touch. I

was born in Melbourne and when I finished school I told my father I wanted to

be a machinist but he wouldn't let me and wanted me to have a secretarial job

and forced me to go to secretarial school. I was offered a job and told that I

would be taught on the job and I have my parents to thank for many years of

secretarial work, a different class of work that I thought I would do. When the

company closed, it was too far for me to travel so I changed to a job nearer to

my home. I sat an examination which I passed and I was given a job with my

friend [names friend]. It was a boring job very repetitive so I got a job with the

Commonwealth Public Service after passing an examination. I think my

previous boss wanted to sack me but I already had a new job. I asked for a

transfer to Sydney as I wanted a working holiday but I missed the Deaf

community in Melbourne where the conversation was very good; in Sydney the

lifestyle tended to be a hedonistic one. I was transferred back to Melbourne

where I met friends [names friends with AISL name signs] who I saved up

money to travel the world. I went to the Deaflympics in 1965 then worked in

Germany for 9 months which I loved then I travelled around Europe where I

stayed in Australia House then I came home to Perth which didn't work out then

I moved back to Melbourne where I have lived ever since. I am now retired. I worked in a printing office for 19 years then the company merged with another company but the boss did not know me and I was made redundant. I was 50 and I was upset, it was very hard to find a job. I wanted to apply for a pension but I was too fit but I got a job with Westpac bank doing the night shify which I didn't want to do. I worked in different sections until retirement at 67 years of age. My boss wanted me to stay but I wanted to retire.

(Quote 8)

131.   I love using AISL but I have less opportunity to use it, mainly in private conversation and not as part of a community. There are a lot more people who use AISL in Sydney I prefer AISL as it is easier to use it especially when driving or other things.

(Quote 87)

132.   There is a difference between AISL, which has more influence from English, and Auslan, which is more of a natural sign language. Auslan can be more comfortable and is more visual but I am more used to AISL which is my first language. I went to VSDC first which was a wonderful school and I had very good teachers, but Portsea was a more oral school which didn't suit me.

(Quote 32)

133.   If I want to have a private conversation in AISL it is better to do it in another room from other Auslan users as they don't like people having private conversations in a different sign language. So the language I use depends on who I am talking to. It is easy for me to switch between the two languages. My mother was very oral with me and I preferred to use AISL fingerspelling but because of who my friends were I had to use Auslan fingerspelling.

231

(demonstrates AISL signs). When I was in London in 1966 I used AISL with Irish Deaf people but I think it was more similar to the signs used at St Gabriel's (the men's dialect). The girls signing was different from the boys. I felt comfortable talking with Irish Deaf people. In America it was different. I find the one-handed fingerspelling easier. I am not very good with the Hail Mary but because I haven't signed it for many years, I have forgotten how to recite the prayer.

APPENDIX 1: BELFAST MEN

BM1 (individual)

134.   I am 59 years old. I learnt ISL in Dublin when I went to boarding school at St Joseph's. On my first day I met a Christian Brother and an older boy and I learnt basic sentences and vocabulary from words written on a chart. I did not learn much speech at school, but there was much focus on written English, maths, geography, history and religious education. Teachers did not correct my speech and just focussed on my written work in the school subjects. At the end of classes teachers would sometimes give feedback in front of a mirror in which we would both look at each other. We did not have hearing aids but later there would be a group which had plug in hearing aids but when I left school there was not much use of speech.

135.   When the boys went home at Easter, summer and Christmas time, and returned to school sometimes there would be a new teacher who didn't sign so well and later those who could speak better would be separated from those who found it difficult. I am not sure which group had a better education, but thank God I was in a group with a teacher who signed well and helped me with my

speech. Closer to the time I left school, the quality of signing deterioriated and I learnt less and less at school.

(Quote 27)

136.   All the brothers were hearing but there were some Deaf lay teachers. When I finished school there were more hearing teachers and less Deaf teachers.

137.   In my family I am the only one who is Deaf, and I was not born Deaf as I am Deaf through illness. I communicate with my family through gesture, and not sign language but as I got older, I was able to speak more with my family. I feel I learnt more after I finished school. My wife is Deaf and she went to a different school and we use the Belfast dialect of BSL. We don't have children.

(Quote 74)

138.   When I finished school there were a number of Deaf clubs but I knew of the Catholic Deaf club on Falls Road which has now closed down. When I first went there I had to ask people what they were saying and what the signs meant, even those who went to the same school as I did. Every year there was a sports competition with Deaf people from Dublin and there were many people from the same age group. I always had to ask other people what they were saying, I was 17-18 then. I found fingerspelling difficult but I eventually learnt the language.

139.   In Dublin, more people use BSL. Less people use ISL but I remember the fingerspelling. I find that when I am trying to recall memories I use ISL and I am able to remember things. This does not work with BSL. When I first start a conversation in ISL it is usually not smooth but it gets better as time goes on.

140.   I am not sure if people see my signing as different because of my ISL background. When I first learnt BSL it was harder. I was mixing with Deaf people, and asking what the sign was, but sometimes people would also ask me

what sign I had just used. ISL and BSL users regularly mixed together. Sometimes people use ISL signs instead of a BSL sign (gives example) and other people notice, but there are not that many ISL users in Belfast.

(Quote 20)

141.   Men and women sign differently because they went to different schools. Women use less fingerspelling. I would meet them at the Deaf Club and we would still be able to have a conversation.

142.   I love ISL. I accept I cannot use ISL in a BSL community. When I first started learning BSL it was really frustrating but now I feel accepted by my community. Maybe now I am rusty but when I meet some past pupils of St Joseph's, their signing is a bit different, even when I meet someone from the middle of Ireland for example. I don't know why but maybe different signs are passed down by different age groups, just as spoken language change over time – young people use English differently from how my parents spoke it. Some signs are dropped, some signs are added and some signs are kept.

143.   I was born in Belfast, my mother is Scottish and my father was born in the countryside. I don't know why my parents sent me to Dublin to school but maybe it was the religious divide; my family was Catholic but I am not Catholic now. There was a school in Lisburn Road but my parents did not seem to know about it. I was homesick when I was at school, but when I was older I discovered other children had similar experiences. When I was older still be sad to go back to school.

(Quote 48)

144.   I use ISL if everyone presents agrees to use ISL, and it is OK. I am not really bothered if BSL users don't approve, we are all just Deaf. It was OK to

use ISL in the Protestant Deaf club. Sometimes when I see my school friends I am a bit rusty in my ISL.

(Quote 49)

145.   If we start a conversation in ISL and someone joins us who does not use ISL and cannot understand us, we really were talking first. However if there is a group of people with different sign languages, I tend to use the sign language everyone can understand.

BM2: (pair)

(Quote 62)

146.   I learnt ISL in Dublin when I went to school at the age of 7 when I first went to school in Dublin. At the age of 12 I went to school in Dublin where I learnt BSL. I do not have any Deaf family – I am the only Deaf person and no one signs.

(Quote 9)

147.   My wife is Deaf and from a Deaf family and we use BSL – I only use ISL when I am with my old school friends. When I travel to Dublin I meet my friends and I use ISL with them.

(Quote 90)

148.   I also do translation work when in NI there is not much ISL, and at community meetings if the ISL Deaf people do not understand the BSL I usually stand at the front and translate, or when on a one on one situation I become a relay interpreter between BSL and ISL My children use BSL, and my wife has 2 Deaf brothers and her parents can sign.

(Quote 73)

149.   I learnt BSL when I came to school in the north, I had to learn BSL or people would not understand me. I think I was the only ISL user in my school at Jordanstown. The next time I met ISL users was during sports, and I met with friends who I went to the same school with at St Joseph's and then I would change language.

(Quote 79)

150.   I think I have an ISL accent, people think I look different when I sign BSL, sometimes I mix them up but it is better to know when to use ISL and when to use BSL. When I got to meetings in the Republic of Ireland BSL people look at me as they know I know both languages and can translate.

(Quote 21)

151.   Men and women sign differently in ISL but not in BSL – it is very obvious. Signs for colours, numbers, days of the week are different. An American has come to research this as it is unusual for men and women to sign differently. When women meet men they usually adapt to the men's dialect. I think it is sad – why change? They could preserve their way of signing.

(Quote 53)

152.   I still have ISL; it will never disappear but I never use it. When an ISL user comes here, I try and use ISL but they can see that I have both ISL and BSL. I don't use ISL very often now; it is a big loss to me and I miss it a lot. I wish my BSL friends would go and learn ISL. There are no longer classes in ISL in the community nowadays. They have gone and I don't know why. I worked for CACDP as a development officer for 3 years and I tried to encourage this but they have now disappeared. This might be a lack of motivation or a lack of

encouragement. Not many teachers want to teach ISL. There are no ISL interpreters in NI but one woman who lives in the north west is almost qualified. If a Deaf ISL user wanted an interpreter, for a medical or court situation, we have to hope someone can come up from the Republic to interpret – this happens a lot. When there are community events with both languages, usually the ISL interpreter has come up from the south – they are not local. Their travel expenses and accommodation has to be paid for even though it is only two and a half hours travel away by car or by train. When people drive closer to Belfast airport there is usually a lot of traffic but it is not far.

(Quote 50)

153.   I never felt uncomfortable about using ISL in the community. People always think ISL is a Catholic language and BSL is a Protestant language – I want to draw their attention to the fact that this is wrong! They need a slap in the face it is not a religious thing it relates to where they live, we even have Protestants who live in the south, it is not linked to religious. We talked about signs but now BSL and ISL have become political. I have always felt comfortable about using ISL and I am proud I can use both as well as English.

154.   During Christmas, Easter and summer holidays I would go to the St Joseph's Deaf club, it was like my home, I would go and talk to people even when I was 8-9-10 years old and meet with people. My parents encouraged me to do this. I would be a sticky beak and adults would tell me to go away but I would learn the language anyway. I also played sports with different people and learn different signs when I was young.

155.   I have some school friends but it is a mixture of both friends who live here and in the south but mostly in the south. If they are all in a meeting it is

nice to see them. The young people sign differently and I don't always understand them, the sign language is changing. I see the same in BSL, and I feel it is a bit of a mess, people using the wrong sign from the wrong language – they should be kept separate. If I write something wrong I can be corrected, this should happen for sign language as well. People need to be told when they use the wrong sign.

(Quote 54)

156.   I have signed all my life, both BSL and ISL are wonderful languages, I hope and pray that my language will continue and not disappear.

APPENDIX 2: ILLUSTRATIONS USED IN PILOT STUDY.

There were 18 items, presented in two categories: cognate and non-cognate signs. The English glosses for those are: BOOK, BREAD, HOUSE, KISS, MAN, MILK, TOILET, TRAIN, WATER and WORLD. All are shown, half in red and half in blue to show the actual colours used.

BOOK

BREAD

HOUSE

KISS

MAN
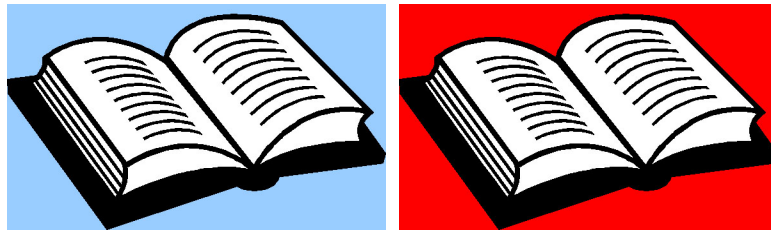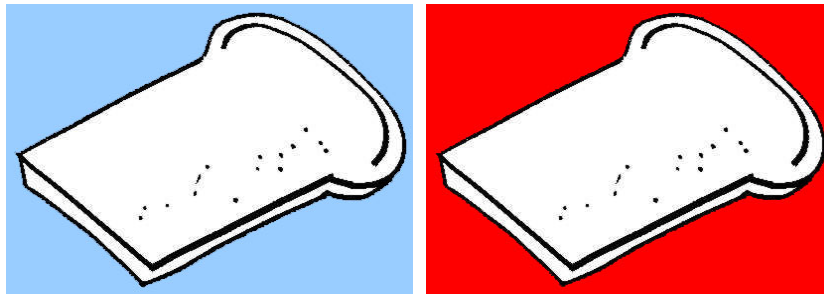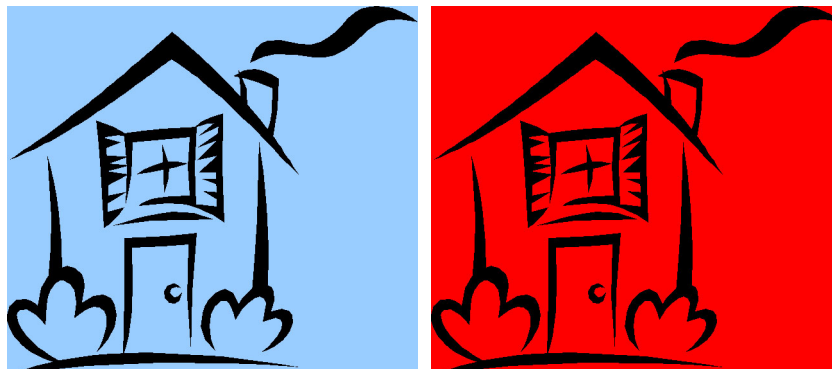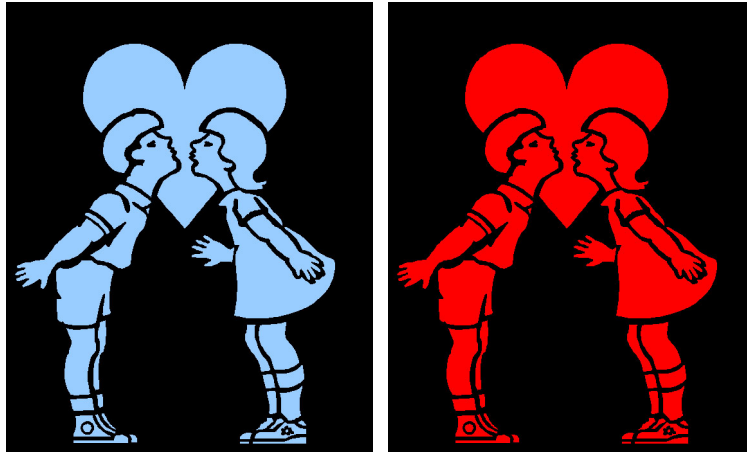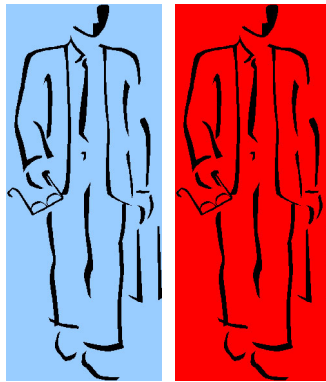
MILK
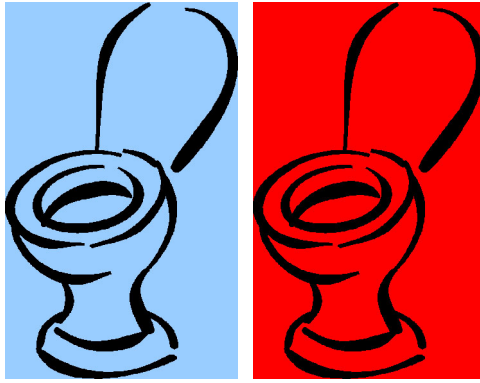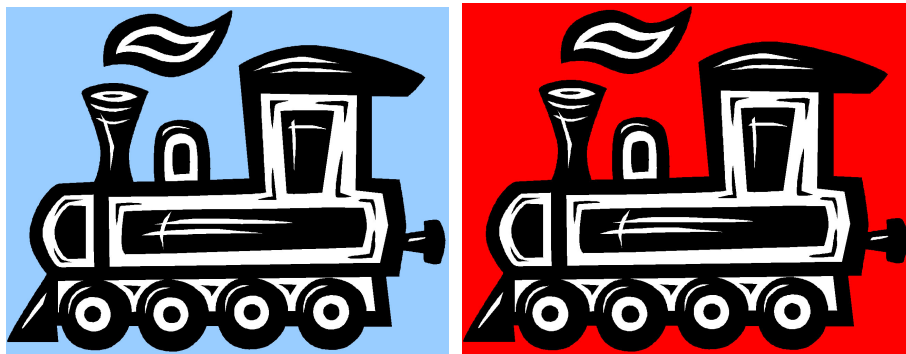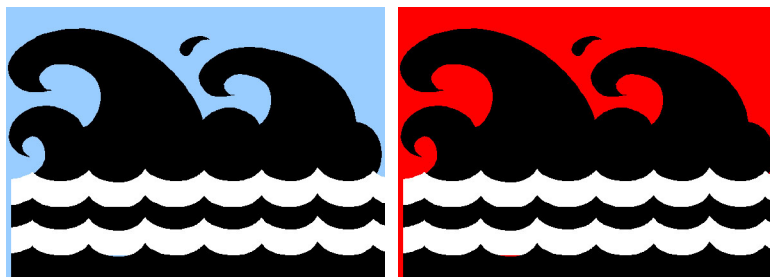
TOILET

TRAIN

WATER

WORLD

APPENDIX 3 – STIMULI USED IN MAIN EXPERIMENT

APPENDIX 3: Illustrations used in Main Experiment.

There were 18 items, presented in two groups: cognate and non-cognate signs. The English glosses for those are: LETTER. BUS, TOILET, TRAIN, MAN, MILK, PEOPLE, PRIEST, CUP-OF-TEA, BABY, BOOK, BREAD, HOUSE, KISS, WATER, WOMAN, WINDOW and WORLD.

In the statistical analysis, WOMAN and WORLD were treated as non-cognate signs.

For an explanation, see chapter 5.

1. Non-cognates (where the items differ more than two parameters):

ADDRESS

BUS

WATER

TRAIN

MAN
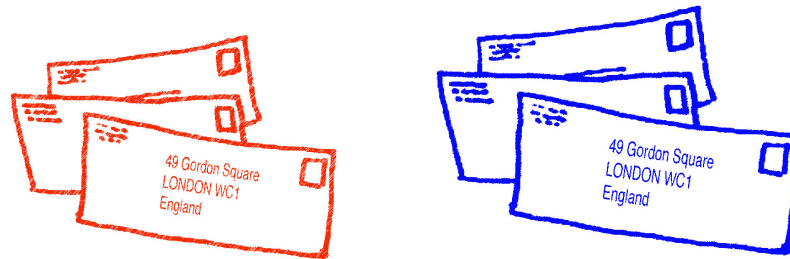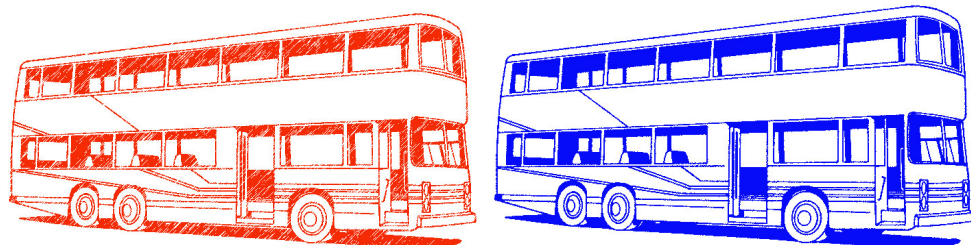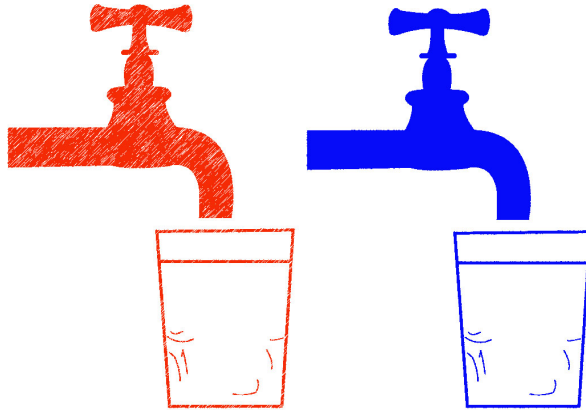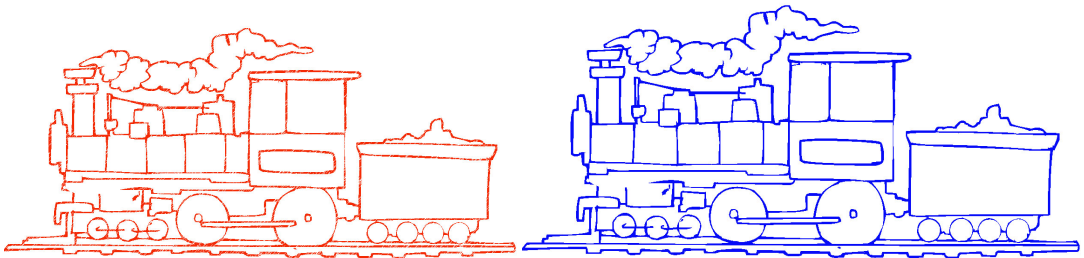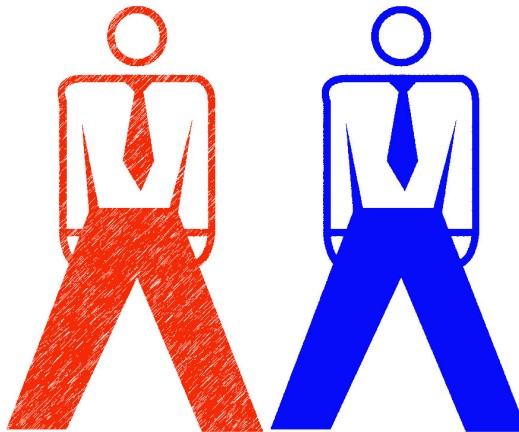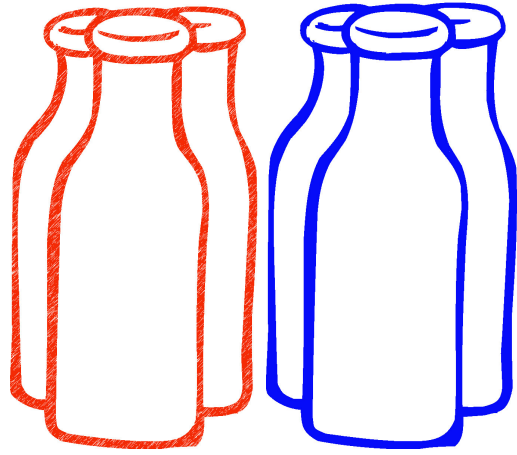
MILK

PEOPLE

PRIEST
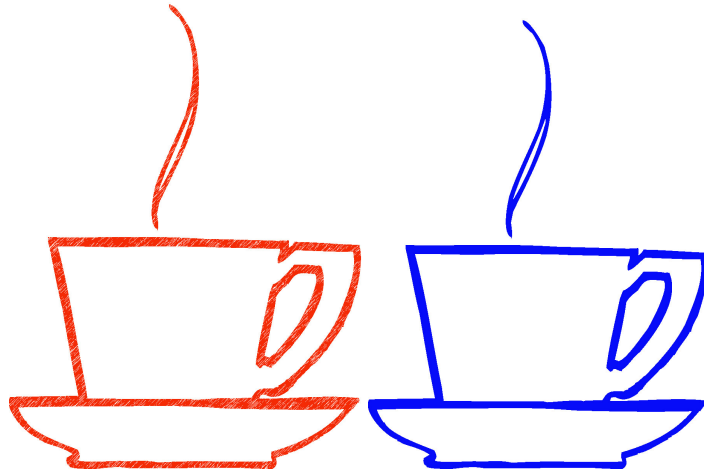
CUP OF TEA

2. Cognates (where the items share up to two of the same parameters)
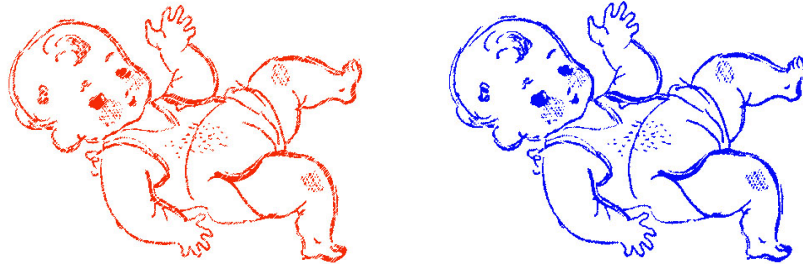
BABY
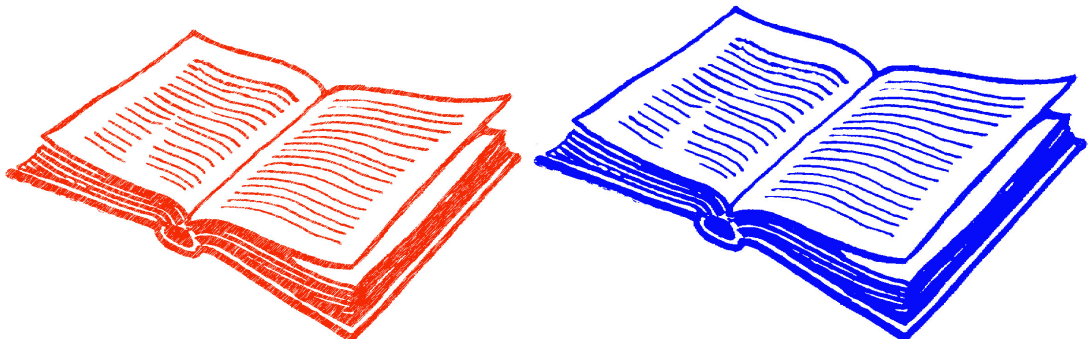
BOOK
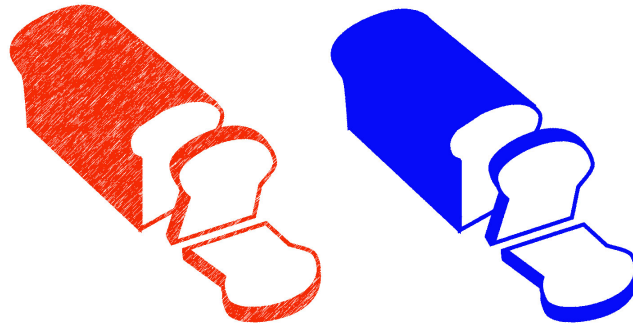
BREAD

HOUSE
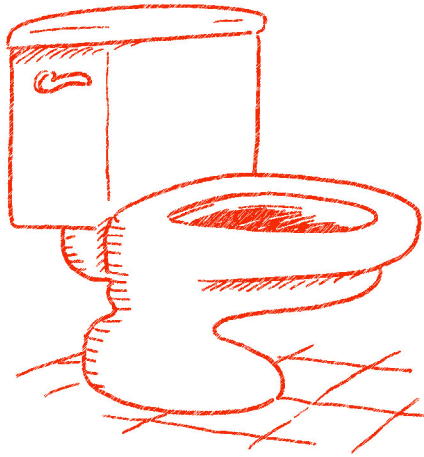
KISS

TOILET

WOMAN
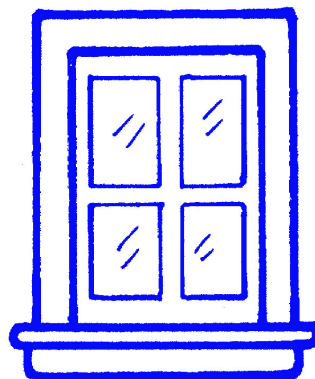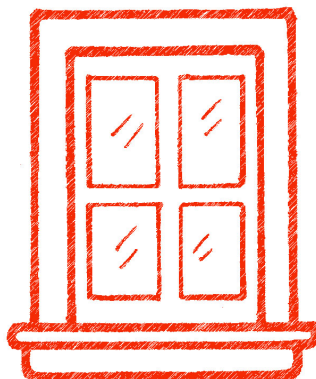
WINDOW
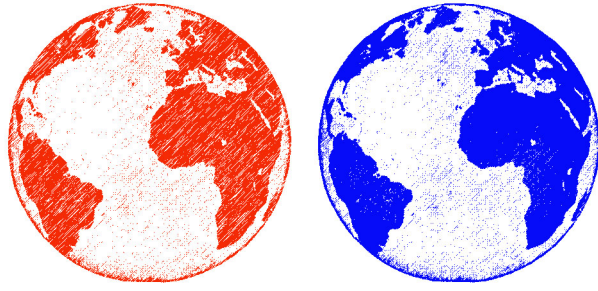
WORLD

APPENDIX 4: ORDER OF ITEMS USED IN PILOT EXPERIMENT

	LIST 1
1	KISS1
2	WATER1
3	TOILET1
4	HOUSE2
5	TOILET2
6	WORLD1
7	MAN2
8	KISS2
9	WATER2
10	BOOK2
11	MILK2
12	WORLD2
13	TRAIN2
14	BREAD2
15	TRAIN2
16	BREAD2
17	WATER2
18	BREAD1
19	WORLD1
20	TRAIN1
21	BOOK1
22	WATER2
23	MAN1
24	TOILET1
25	WORLD2

26	HOUSE2
27	MAN2
28	TOILET2
29	KISS2
30	BREAD1
31	BOOK1
32	MILK1
33	HOUSE1
34	TRAIN1
35	KISS2
36	BOOK2
37	MILK2
38	BOOK2
39	WORLD2
40	MILK1
41	WATER1
42	TRAIN2
43	HOUSE2
44	WATER2
45	MAN1
46	TOILET2
47	MILK2
48	KISS2
49	MAN2
50	BREAD2
51	TOILET1
52	HOUSE2
53	WORLD2
54	MILK2
55	WORLD1
56	HOUSE1
57	BOOK1
58	WORLD1

59	KISS2
60	MAN2
61	TOILET2
62	KISS1
63	TRAIN1
64	WATER1
65	BREAD1
66	KISS1
67	BREAD2
68	MILK1
69	MAN1
70	BOOK1
71	TOILET1
72	TRAIN1
73	MILK1
74	BREAD1
75	BOOK2
76	WATER2
77	TRAIN2
78	WATER1
79	MAN1
80	HOUSE1
81	BOOK1
82	WORLD2
83	WATER1
84	WORLD1
85	WATER2
86	HOUSE2
87	KISS1
88	MAN1
89	MILK1
90	MAN2
91	BOOK2

92	MILK2	125	TOILET2	158	MILK1
93	TRAIN2	126	MILK2	159	TOILET2
94	BOOK1	127	WATER2	160	KISS2
95	HOUSE1	128	KISS2		
96	BREAD1	129	MAN2	161	BOOK2
97	BREAD2	130	WORLD1	162	MILK1
98	KISS2	131	HOUSE1	163	HOUSE1
99	TOILET2	132	BREAD1	164	TRAIN1
100	MILK2	133	WORLD1	165	MILK1
101	MILK1	134	TRAIN1	166	MILK1
102	TOILET1	135	BREAD2	167	MILK2
103	WORLD1	136	HOUSE2	168	WATER1
104	TRAIN2	137	TOILET2	169	MAN1
105	WORLD2	138	MAN2	170	TOILET1
106	MAN1	139	KISS2	171	WORLD1
107	HOUSE2	140	BOOK1	172	HOUSE1
108	KISS2	141	WATER2	173	BOOK1
109	BREAD2	142	BOOK2	174	WORLD1
110	MAN2	143	MILK2	175	BOOK2
111	TOILET2	144	WORLD2	176	WORLD2
112	BOOK2	145	MAN1	177	TRAIN2
113	WATER2	146	TRAIN2	178	KISS1
114	BOOK2	147	BREAD2	179	TRAIN1
115	HOUSE2	148	TRAIN2	180	WATER1
116	TRAIN2	149	BREAD2	181	BREAD1
117	WORLD1	150	WATER2	182	HOUSE2
118	HOUSE1	151	TOILET1	183	KISS1
119	TOILET1	152	WORLD2	184	MILK1
120	TRAIN1	153	HOUSE2	185	WATER2
121	KISS1	154	MAN2	186	TOILET2
122	WORLD2	155	KISS1	187	MAN1
123	WATER1	156	BREAD1	188	BOOK1
124	TOILET1	157	BOOK1	189	TOILET1

190	MILK2	223	MAN1	255	HOUSE1
191	KISS2	224	MILK1	256	TOILET1
192	MAN2	225	KISS2	257	TRAIN1
193	BREAD2	226	TOILET2	258	KISS1
194	TRAIN1	227	MILK2	259	TOILET2
195	MILK1	228	TRAIN2	260	BOOK2
196	HOUSE2	229	WORLD2	261	WATER2
197	WORLD2	230	KISS1	262	WATER1
198	MILK2	231	BOOK1	263	TOILET1
199	KISS2	232	HOUSE1	264	WORLD1
200	MAN2	233	BREAD1	265	HOUSE1
201	MILK1	234	MILK1	266	TRAIN1
202	BREAD1	235	WATER2	267	BOOK2
203	WATER1	236	HOUSE2	268	BREAD1
204	TOILET2	237	MAN2	269	WORLD1
205	BREAD2	238	BOOK2	270	TRAIN1
206	MAN1	239	MILK2	271	BOOK1
207	BOOK2	240	TOILET1	272	MAN1
208	WATER2			273	TOILET1
209	TRAIN2	241	WORLD1	274	TRAIN1
210	WORLD2	242	TRAIN2	275	HOUSE2
211	WATER2	243	BREAD2	276	TRAIN2
212	HOUSE2	244	KISS2	277	WORLD2
213	MAN2	245	MAN1	278	KISS1
214	BOOK2	246	TOILET2	279	BREAD1
215	MILK2	247	MILK2	280	BOOK1
216	TRAIN2	248	TRAIN2	281	MILK1
217	HOUSE1	249	WORLD2	282	TOILET2
218	BOOK1	250	HOUSE2	283	HOUSE1
219	WATER1	251	WORLD1	284	TRAIN1
220	BREAD1	252	KISS2	285	TOILET2
221	KISS1	253	BREAD2	286	MILK2
222	BREAD2	254	MAN2	287	MILK1

288	WATER1			353	BREAD2
289	TRAIN1	321	MILK1	354	BOOK2
290	WATER2	322	TOILET2	355	WATER1
291	KISS2	323	MAN1	356	BREAD1
292	MAN2	324	BOOK1	357	KISS1
293	BREAD2	325	KISS2	358	MAN1
294	KISS1	326	BOOK2	359	WATER2
295	TOILET1	327	MILK2	360	TRAIN2
296	WORLD1	328	BOOK2	361	WORLD1
297	HOUSE2	329	WORLD2	362	MILK1
298	TOILET2	330	TOILET1	363	KISS1
299	MAN2	331	TRAIN1	364	BOOK1
300	KISS2	332	MILK1	365	HOUSE1
301	HOUSE1	333	BREAD1	366	BREAD1
302	BOOK1	334	WATER1	367	WORLD2
303	WORLD1	335	TRAIN2	368	MILK1
304	WATER2	336	HOUSE2	369	TOILET1
305	BOOK2	337	WATER2	370	WORLD1
306	KISS1	338	TOILET2	371	MAN1
307	MILK2	339	MILK2	372	WORLD1
308	WORLD2	340	MAN1	373	HOUSE1
309	TRAIN2	341	HOUSE1	374	TOILET1
310	BREAD2	342	KISS2	375	WATER2
311	TRAIN2	343	MAN2	376	HOUSE2
312	BREAD2	344	BREAD2	377	MAN2
313	WATER2	345	BOOK1	378	TRAIN1
314	WORLD2	346	HOUSE2	379	KISS1
315	HOUSE2	347	WORLD2	380	WATER1
316	MAN2	348	MILK2	381	TOILET1
317	TRAIN1	349	KISS2	382	BOOK2
318	WATER1	350	MAN2	383	WORLD1
319	BREAD1	351	BOOK1	384	HOUSE1
320	KISS1	352	TOILET2	385	MILK2

386	TRAIN2
387	BREAD1
388	WORLD1
389	TRAIN1
390	BREAD2
391	KISS2
392	TOILET2
393	MILK2
394	BOOK1
395	MAN1
396	TOILET1
397	TRAIN2
398	WORLD2
399	HOUSE2
400	KISS2

APPENDIX 5: CLAUSES

SF1 CLAUSES

255

SPEAKER	CLAUSE #	GLOSS	SWITCH MATERIAL	INTRA-SENTENTIAL	BOUNDARY	SINGLE WORD	DIRECTION OF CS	FINGER-SPELLING	DOUBLED INSERTION
SF1	1	PRO1+ MY SIGN WARATAH	WARATAH	N	Y	Y	AISL	N	N
SF1	2	PRO1 WENT T-O WARATAH AGE WHEN FIVE-YEARS-OLD	WARATAH	N	Y	Y	AISL	N	N
SF1	4	KNOW KNOW PRO1 DEAF G:WELL	PRO1 DEAF	N	Y	N	AUS	N	N
SF1	5	PRO1 GO WARATAH	WARATAH	N	Y	Y	AISL	N	N
SF1	6	PRO1 S-TA-R-T LEARN SIGN++	S-T-A-R-T LEARN	N	Y	N	AISL	Y	N
SF1	8	DEAF TEACH-ER SIGN	DEAF TEACHER SIGN	N	Y	N	AISL	N	N
SF1	9	POSS1 MOTHER FATHER WATCH POINT PRO1 THINK	WATCH POINT	N	Y	N	AUS	Y	N
SF1	10	PRO3pl FEEL F-E-E-L S-A-T-I-S-F-I-E-D WITH PRO1 LEARN SIGN	F-E-E-L S-A-T-I-S-F-I-E-D	N	Y	Y	AISL	Y	N
SF1	11	POSS1 MOTHER MOTHER FATHER GONE	MOTHER FATHER GONE	N	Y	Y	AISL	N	N
SF1	12	PRO1 SIGN LEARN QUICK QUICK QUICK ENJOY QUICK QUICK	QUICK QUICK	N	Y	Y	AISL	N	N
SF1	13	PRO1 REMEMBER REMEMBER WHEN PRO1 WAS 6 A-G-E THERE NUN SISTER THERE	REMEMBER WHEN I WAS 6 A-G-E THERE NUN SISTER THERE	N	N	N	AISL	Y	N
SF1	14	WRITE LETTER T-O POSS1 MOTHER FATHER	WRITE, MOTHER FATHER	N	Y	Y	AUS	N	N
SF1	15	PRO1 WRITE++ GIVE THEY WRITE G:GET-ATTENTION WRONG MUST CHANGE++	CORRECT C-O-R-R-E-C-T CORRECT	N	N	Y	AISL	Y	Y
SF1	16	TEACH-PRO1 BETTER E-N-G-L-I-S-H	E-N-G-L-I-S-H	N	Y	Y	AISL	Y	N
SF1	19	SIGN PRO1 SCHOOL SIGN PASS-ON POINT USE ENGLISH T-O PRO1 SOME PRO1 GO HOME	HOME	N	Y	Y	AISL	N	N
SF1	20	SIGN A-U-S A-U-S-L-A-N GESTURE	A-U-S-L-A-N GESTURE	N	Y	N	AISL	Y	N
SF1	21	POINT STILL TEACH PRO1 H-O-W WRITE ENGLISH PROPERLY	POINT STILL	N	Y	N	AUS	N	N
SF1	22	POINT HELP PRO1 A L-O-T	HELP PRO1 A L-O-T	N	Y	N	AISL	N	N
SF1	23	PRO1 WAS TEACH BY DEAF WOMAN NAME NAME-SIGN A-G-N-E-S L-Y-N-C-H	NAMESIGN A-G-N-E-S L-Y-N-C-H POINT	N	N	N	AISL	Y	N
SF1	24	POINT W-A-S MY BEST TEACHER	TEACHER BECAUSE	N	Y	N	AISL	N	N

SFI	26	ABSORB QUICK	QUICK	N	Y	Y	AUS	N
SFI	27	AFTER POINT PRO1 CHANGE TEACH BY HEARING	HEARING	N	Y	Y	AUS	N
SFI	29	UNDERSTAND	UNDERSTAND	Y	Y	Y	AISL	N
SFI	32	POSS1 FIRST C-L-A-S-S WITH LOTS FROM MELBOURNE	WITH LOTS	Y	N	N	AUS	N
SFI	33	BEFORE ALL MOVE T-O P-O-R-T-S-E-A	P-O-R-T-S-E-A	N	Y	Y	AISL	Y
SFI	37	NEW DIFFERENT G-I-R-L-S GROUP MINE	G-I-R-L-S GROUP MINE	N	Y	N	AISL	Y
SFI	39	PRO2she PRO1 SAME FIRST HOLY COMMUNION CONFIRMATION UNTIL FINISH SCHOOL	FINISH	N	Y	Y	AUS	N

SF2 CLAUSES

SPEAKER	CLAUSE #	GLOSS	SWITCH MATERIAL	INTRA-SENTENTIAL	BOUNDARY	SINGLE WORD	DIRECTION OF CS	FINGER-SPELLING	DOUBLED INSERTION
SF2	1	PRO1 REMEMBER PRO1 R-E-M-E-M-B-E-R	PRO1 R-E-M-E-M-B-E-R	Y	Y	N	AISL	Y	Y
SF2	1	PRO1 REMEMBER PRO1 R-E-M-E-M-B-E-R	PRO1 WENT T-O	Y	Y	N	AUS	Y	Y
SF2	2	PRO1 WENT T-O SCHOOL 1946 PRO1 WAS NEARLY 6 Y-E-A-R-S O-L-D	SCHOOL 1946 I WAS NEARLY 6 Y-E-A-R-S O-L-D	N	Y	N	AISL	Y	N
SF2	3	ARRIVE PRO1 CAN'T REMEMBER WHAT PRO1 SEE	ARRIVE PRO1 CAN'T REMEMBER WHAT PRO1 SEE	N	Y	N	AISL	N	N
SF2	5	FINGERSPELLING	FINGERSPELLING	N	N	Y	AISL	N	N
SF2	6	PRO1 CAN'T REMEMBER REMEMBER H-O-W L-O-N-G IT TAKE PRO1 TO FINGERSPELLING FLUENT FINGERSPELLING TIME-WENT-ON	PRO1 CAN'T REMEMBER	N	N	N	AUS	N	N
SF2	8	I LOVE GO SCHOOL THERE	LOVE GO SCHOOL THERE	N	Y	N	AUS	N	N
SF2	10	REMEMBER PRO1 WRITE E-N-G-L-I-S-H	REMEMBER PRO1 WRITE	N	Y	N	AUS	N	N
SF2	10	REMEMBER PRO1 WRITE E-N-G-L-I-S-H	E-N-G-L-I-S-H	N	Y	Y	AISL	Y	N
SF2	11	WHEN THEY CORRECT	WHEN THEY CORRECT	Y	Y	N	AUS	N	N
SF2	13	UNDERSTAND W-H-Y POINT HAVE TO CORRECTION	UNDERSTAND W-H-Y POINT HAVE TO CORRECTION MY POINT	N	N	N	AISL	N	N
SF2	14	MY POINT ENGLISH B-U-T A-T THAT TIME ALL DON'T-KNOW WE HAVE OUR LANGUAGE	ENGLISH	N	N	Y	AUS	N	N
SF2	15	INVERTED-COMMAS A-U-S-L-A-N	A-U-S-L-A-N	N	Y	Y	AISL	Y	N
SF2	16	AFTER PRO1 KNOW LEAVE SCHOOL POINT	AFTER PRO1 KNOW LEAVE SCHOOL POINT	N	N	N	AUS	N	N
SF2	18	WE PRO1 WENT CORRECTIONS C-O-R-R-E-C-T SAME OBJECT T-O WRITE	WE	N	N	Y	AISL	N	N
SF2	18	WE PRO1 WENT CORRECTIONS C-O-R-R-E-C-T SAME OBJECT T-O WRITE	PRO1 WENT	N	N	N	AUS	N	N
SF2	18	WE PRO1 WENT CORRECTIONS C-O-R-R-E-C-T SAME OBJECT T-O WRITE	CORRECTIONS	N	N	Y	AISL	N	Y

257

CORRECTIONS

		Gloss	Sub-gloss					
SF2	18	WE PRO1 WENT CORRECTIONS C-O-R-E-C-T SAME OBJECT T-O WRITE	C-O-R-E-C-T SAME OBJECT-TO WRITE		N	AUS	Y	N
SF2	18	WE PRO1 WENT CORRECTIONS C-O-R-E-C-T SAME OBJECT T-O WRITE	CORRECTIONS	N	N	AISL	N	N
SF2	18	WE PRO1 WENT CORRECTIONS C-O-R-E-C-T SAME OBJECT T-O WRITE	C-O-R-E-C-T	N	N	AUS	Y	N
SF2	18	WE PRO1 WENT CORRECTIONS C-O-R-E-C-T SAME OBJECT T-O WRITE	OBJECT-TO WRITE	N	N	AUS	N	N
SF2	18	CORRECTIONS	CORRECTION	N	N	AUS	N	N
SF2	19	WRITE CORRECTION	CORRECTION	N	N	AUS	N	N
SF2	19	WRITE CORRECTION	CORRECTION	N	N	AUS	N	N
SF2	25	B-U-T B-U-T S-O-M-E-T-I-M-E-S NOW PRO1 THINK BACK WHY ALL	NOW PRO1 THINK BACK WHY ALL	N	Y	AUS	Y	N
SF2	26	WHY W-H-Y NOT TEACH HEARING DEAF FIVE FIVE HEARING	W-H-Y NOT	Y	N	AISL	N	Y
SF2	27	HEARING B-E-T-T-E-R ENGLISH TEACH SAME SAME	B-E-T-T-E-R	Y	N	AISL	Y	Y
SF2	28	LEARN LEARN ENGLISH	ENGLISH	Y	Y	AUS	N	Y
SF2	29	DEAF grimace D-E-A-F gesture MARVELLOUS	D-E-A-F	Y	n	AISL	y	Y
SF2	31	KNOW W-H-Y	W-H-Y	Y	Y	AISL	Y	Y
SF2	34	THEY DID TAUGHT US A VERY PLAIN P-L-A-I-N ENGLISH	VERY PLAIN	Y	N	AUS	N	Y
SF2	36	WHICH PRO1 APPRECIATE A-P-P-R-E-C-I-A-T-E-D	A-P-P-R-E-C-I-A-T-E-D	Y	N	AISL	Y	Y
SF2	37	ALWAYS UNDERSTAND AND F-E-E-L COMFORTABLE C-O-M-F-O-R-T-A-B-L-E TO TALK TO POINT GOOD RIGHT	GOOD RIGHT	Y	N	AUS	N	Y
SF2	38	B-U-T S-O-M-E-H-O-W THANK GOD	THANK GOD	Y	N	AISL	Y	N
SF2	43	PRO1 TIME NOTHING T-I-M-E- NOT L-U-C-K-Y	NOT	Y	N	AUS	N	N
SF2	46	1945 START 1946 WHY POINT NOTHING JOIN	1945, 1946	Y	N	AISL	N	N
SF2	48	SORRY PRO1 S-I-N-C-E 1955	S-I-N-C-E	Y	N	AISL	Y	N
SF2	49	LEAVE SCHOOL THINK BACK HOPE REMEMBER NAME-SIGN NAME-SIGN	HOPE REMEMBER NAME-SIGN NAME-SIGN	Y	N	AISL	N	N
SF2	52	NEVER HAVE HIGH SCHOOL NEVER INTERESTING	HIGH	Y	N	AISL	N	N

SF3 CLAUSES

SPEAKER	CLAUSE #	GLOSS	SWITCH MATERIAL	INTRA-SENTENTIAL	BOUNDARY	SINGLE WORD	DIRECTION OF CS	FINGER-SPELLING	DOUBLED INSERTION
SF3	1	PRO1 GO FIRST SCHOOL A-T AT D-A-R-L-I-N-G-T-O-N	A-T AT D-A-R-L-I-N-G-T-O-N	Y	N	N	AISL	Y	Y
SF3	2			N	Y	N	AUS	N	N
SF3	3			N	Y	N	AUS	N	N
SF3	4	CHANGE PRO1 FINGERSPELL AGAIN CHANGE FINGERSPELLING	FINGERSPELLING	Y	Y	Y	AISL	N	N
SF3	5	PRO1 WITH ONE PERSON TWO-OF-US GROW-UP SAME TIME TWO-OF-US V-A-L-A-I-N-E	V-A-L-A-I-N-E	Y	Y	Y	AISL	Y	N
SF3	6	BOTH-OF-US GROW-UP-TOGETHER US-TWO WITH CL:G-two of us SAME AGAIN FINGERSPELLING	FINGERSPELLING	Y	Y	Y	AISL	N	N
SF3	7	VERY GOOD WRITE V-A-L-A-I-N-E C-O-L-L-I-E-R	V-A-L-A-I-N-E C-O-L-L-I-E-R	Y	Y	N	AISL	Y	N
SF3	8	POINT MARRY J-I-M T-Y-W-I-N	J-I-M T-Y-W-I-N	Y	Y	N	AISL	Y	N
SF3	9	POINT WE GOOD A-T SCHOOL	A-T	Y	Y	Y	AISL	Y	N
SF3	10	GOOD POINT D-A-R-L-I-N-G-T-O-N TEACH US-TWO VERY GOOD	TEACH US-TWO VERY GOOD	Y	Y	N	AISL	N	N
SF3	11	CAN TALK LIP-READ GOOD WHEN WE MOVE WARATAH	WARATAH	Y	N	Y	AISL	N	N
SF3	12	B-U-T PRO1 CAN TALK BIT T-O MY FAMILY FAMILY (NOT) P-E-O-P-L-E	PRO1 CAN TALK BIT T-O MY	N	Y	N	AUS	N	N
SF3	13	gesture		Y	Y	N	AUS	Y	N
SF3	16	BOTH-OF-US GROW-UP FINGERSPELLING	FINGERSPELLING	Y	N	Y	AISL	N	N
SF3	17	FAST PUT PUT N-E M-A-D-A NUN M-A-D STAY WITH HER OVER-TIME POINT US-TWO	STAY WITH HER OVER-TIME POINT US-TWO	Y	N	N	AUS	N	N
SF3	19				Y				
SF3	20	NUN NAME-SIGN LAST	NAME-SIGN	Y	N	Y	AISL	Y	N
SF3	21	FINISH W-A-R-T-I-M-E TIME SAME TIME FINISH SCHOOL ALL GO GO PRO1 BACK	W-A-R-T-I-M-E	Y	N	Y	AISL	Y	N
SF3	22	PRO1 BACK B-A-C-K PRO1 CRY	B-A-C-K	Y	N	Y	AISL	Y	Y

SF3	23	WHERE MY M-A-T-E-S GONE GONE	Y	Y	M-A-T-E-S GONE GONE	N	AISL	Y	N
SF3	24	PRO1 WRITE TELL MOTHER	Y	N	MOTHER	Y	AISL	N	N
SF3	28	W-A-R COME	Y	N	COME	Y	AUS	Y	N
SF3	30	HAPPY HAPPY GO HOME GO WORK	Y	Y	GO HOME GO WORK	N	AUS	N	N
SF3	31	B-U-T MY NIN NAME-SIGN TRY B-U-R-S-A-R-Y	Y	Y	MY NUN, TRY	N	AUS	Y	N
SF3	32		N	Y		N	AUS	N	N
SF3	33	B-U-T GOVERNMENT NEVER GIVE WE CAN TIME	Y	Y	GOVERNMENT NEVER GIVE WE CAN TIME	N	AUS	Y	N
SF3	34	NAME-SIGN PRO1 CAN TYPE T-Y-P-E THERE SCHOOL	Y	Y	T-Y-P-E THERE SCHOOL	N	AISL	Y	Y
SF3	36	MACHINST M-A-C-H-I-N-I-S-T	Y	N	M-A-C-H-I-N-I-S-T	N	AISL	Y	Y
SF3	39	D-O-T BEFORE D-E-N-D-L-E D-O-T D-E-N-D-L-E POINT D D D-O-R-E-E-N SISTER NEXT M-A-R-Y L-E-W-I-S NEXT M-A-R-Y C-O-V-E-Y	Y	Y	SISTER	Y	AUS	Y	N

260

SM1 CLAUSES

SPEAKER	CLAUSE #	GLOSS	SWITCH MATERIAL	INTRA-SENTENTIAL	BOUNDARY	SINGLE WORD	DIRECTION OF CS	FINGER-SPELLING	DOUBLED INSERTION
SM1	11	KITCHEN MEET MEET MEET FRIEND DEAF	FRIEND	N	Y	Y	AUS	N	N
SM1	13	I LEARN+ IRISH TAKE SIGN FINGERSPELLING	SIGN	N	N	Y	AUS	N	N
SM1	16	GO WITH G-direction NOW TO D-I-N-I-N-G ROOM DINI-ING ROOM	NOW	N	N	Y	AUS	N	N
SM1	21	THEN QUEUE SIT SIT AROUND ALL T-A-B-L-E-S	SIT SIT	N	N	Y	AUS	N	N
SM1	24	WATCH LOOK DINE DINE	LOOK	N	N	Y	AUS	N	N
SM1	25	FINISH FINISH BRING PLATE CUPS PUT IN KITCHEN	FINISH FINISH	Y	Y	Y	AUS	N	N
SM1	40	ALL GET-DRESSED GOOD	GOOD	Y	Y	Y	AUS	N	N
SM1	42	THEN CHANGE CLEAN CLOTHES	CLEAN	N	Y	Y	AUS	N	N
SM1	44	THEN AGAIN GO TO THE VERANDAH SAME QUEUE QUEUE	AGAIN	N	N	Y	AUS	N	N
SM1	45	THEN WALK QUEUE ON OUR T-A-B-L-E	ON	N	N	Y	AUS	N	N
SM1	47	MEAL FOOD ISL-SIGN ISL-SIGN ISL-SIGN TIME TUMMY FULL GOOD	GOOD	Y	Y	Y	AUS	N	N
SM1	54	PRO1 DISAPPOINTED PLAY CRICKET HOSPITAL AFTER LEAVE	DISAPPOINTED	N	N	Y	AUS	N	N
SM1	58	NAME-SIGN WE DISAPPOINTED WE FULL SCHOOL ROOM	DISAPPOINTED	N	N	Y	AUS	N	N
SM1	59	PRO1 TIME AGAIN GOOD	GOOD	Y	Y	Y	AUS	N	N
SM1	60	PRO1 HAVE ENOUGH GOOD THANK PRO2	GOOD	N	N	Y	AUS	N	N
SM1	61	MORE WE HIGH HIGH	MORE WE HIGH HIGH	Y	Y	N	AUS	N	N

SM2 CLAUSES

SPEAKER	CLAUSE #	GLOSS	SWITCH MATERIAL	INTRA-SENTENTIAL	BOUNDARY	SINGLE WORD	DIRECTION OF CS	FINGER-SPELLING	DOUBLED INSERTION
SM2	5	PRO1 BOYS FIRST TEACH+ER NAME-SIGN A-D-A	BROTHER	N	N	Y	AUS	N	N
SM2	5	PRO1 BOYS FIRST TEACH+ER NAME-SIGN A-D-A	A-D-A	N	N	Y	AUS	Y	N
SM2	7	H-E TEACH PRO1 FOR TWO Y-E-A-R-S	TEACH	N	N	Y	AUS	N	N
SM2	7	H-E TEACH PRO1 FOR TWO Y-E-A-R-S	FOR	N	N	Y	AUS	N	N
SM2	8	FIRST ALL B-O-Y-S WAKE MORNING UP GET-DRESSED	FIRST	Y	Y	Y	AUS	N	N
SM2	10	T-H-E-N ALL POINT:go-downstairs D-O-W-N T-O V-E-R-A-N-D-A-H	FIRST	Y	Y	Y	AUS	N	N
SM2	11	THEN RUN R-U-N AROUND FIRST	RUN	Y	Y	Y	AUS	N	N
SM2	11	THEN RUN R-U-N AROUND FIRST	FIRST	y	y	y	AUS	N	N
SM2	13	FINISH W-A-S-H U-P ALL PLATES CUP KNIFE FORK FINISH	FINISH	Y	Y	Y	AUS	N	N
SM2	13	FINISH W-A-S-H U-P ALL PLATES CUP KNIFE FORK FINISH	FINISH	Y	Y	Y	AUS	N	N
SM2	16	TEACHER LOOK-across-class G:tap-on-shoulder POINT D-I-R-T-Y	TEACHER LOOK-across class G:tap-on-shoulder POINT	Y	Y	N	AUS	N	N
SM2	18	FINISH G:go-upstairs ALL GO CLASS C-L-A-S-S R-O-O-M	GO	Y	Y	Y	AUS	N	N
SM2	19	G:until 9AM TO 3PM FINISH	9AM TO 3PM FINISH	Y	Y	N	AUS	N	N
SM2	20	AFTER C-L-A-S-S PRO2 PRO1 HAVE O-R-A-N-G-E EAT	HAVE	N	N	Y	AUS	N	N
SM2	24	PRO1 PRO1 CAN REMEMBER BROTHER BROTHER O'NEILL I-S P-R-I-N-C-I-P-A-L	REMEMBER BROTHER	N	N	N	AUS	N	N
SM2	25	WHEN PRO1 FIRST ARRIVE ST-GABRIELS 19 1946	WHEN I FIRST	Y	Y	N	AUS	N	N
SM2	25	WHEN PRO1 FIRST ARRIVE ST-GABRIELS 19 1946	19	N	N	Y	AUS	N	N
SM2	26	UNTIL BROTHER REGAN SAY GOOD BYE	BROTHER	N	N	Y	AUS	N	N
SM2	29	NEW P-R-I-N-C-I-P-A-L BROTHER D-U-F-F-Y COME-HERE	BROTHER	N	N	Y	AUS	N	N
SM2	30	BUT PRO1pl NAME-SIGN ONLY THREE YEARS	ONLY THREE	N	N	N	AUS	N	N
SM2	32	PRO1 TEACH POSS2 BOY-S SAME C-L-A-S-S-R-O-O-M	TEACH	N	N	Y	AUS	N	N

SM2			HOW						
SM2	33	TALK HOW ME TALK	HOW	N	N	Y	AUS	N	N
SM2	34	PRO2pl-ALL IMPROVE	IMPROVE	Y	N	Y	AUS	N	N
SM2	36	NAME-SIGN LEAVE	[NAME SIGN]	Y	Y	Y	AUS	N	N
SM2	37	SURPRISE BROTHER NAME-SIGN COME BACK AS PRINCIPAL	SURPRISE BROTHER	Y	Y	N	AUS	N	N

MF2 CLAUSES

SPEAKER	CLAUSE #	GLOSS	SWITCH MATERIAL	INTRA-SENTENTIAL	BOUNDARY	SINGLE WORD	DIRECTION OF CS	FINGER-SPELLING	DOUBLED INSERTION
MF2	4	W-E WEATHER FUNNY NOW F-U-N-N-Y F-U-N-N-Y	FUNNY NOW	Y	Y	Y	AUS	Y	Y
MF2	3		GOOD T-O HAVE, POINT T-O HAVE COMFORT		Y	Y	AUS	N	N
MF2	7	N-E-D PRO2 GOOD T-O HAVE H-E-R	COMFORT	Y	N	N	AUS	Y	N
MF2	8	RIGHT RIGHT GO	RIGHT	Y	Y	N	AUS	N	N
MF2	9	FIRST WENT TO PROTESTANT T-O SCHOOL PROTESTANT PROTESTANT SCHOOL	T-O SCHOOL	Y	N	N	AUS	Y	N
MF2	16	POINT PRO1 THOUGHT ALL NUN NUN W-A-S MAN	NUN	Y	Y	Y	AISL	N	N
MF2	17	THINK PRO1 THINK WOMAN WOMAN	WOMAN	Y	Y	Y	AISL	N	N
MF2	20	ALL BOY B-O-Y-S STAY SCHOOL UNTIL T-I-L-L TEN SEND-TO WARATAH SEND-TO	T-I-L-L, WARATAH	Y	Y	Y	AISL	Y	N
MF2	21	GIRL ALL GIRL STAY T-I-L-L	GIRL STAY T-I-L-L	Y	N	N	AISL	N	N
MF2	26	REMEMBER NAME-SIGN	NAME-SIGN	Y	N	Y	AISL	N	N
MF2	28	HAVE HAVE PRO2 S-E-E-N NAME W	HAVE	Y	N	Y	AISL	N	N
MF2	31	B-E-T-Y C-A-R-B-E-R-R-Y BEFORE WORK IN PORTSEA WORK	BEFORE WORK IN PORTSEA WORK	Y	Y	N	AUS	N	N
MF2	32			N	Y	N	AISL	Y	N
MF2	33	WANT EXPLAIN S-T-O-R-Y GOOD SOMETIMES HARD H-A-R-D	EXPLAIN S-T-O-R-Y, H-A-R-D	Y	Y	N	AISL	Y	Y
MF2	37	GOOD T-O REMEMBER HER REMEMBER H-E-R	REMEMBER H-E-R	Y	Y	Y	AISL	Y	N
MF2	40	PRO1 REMEMBER REMEMBER FINGERSPELLS-NAME NAME-SIGN	REMEMBER FINGERSPELLS-NAME NAME-SIGN	Y	Y	N	AISL	N	N
MF2	44	PRO1 W-A-S VERY W-I-L-D GIRL	GIRL	Y	N	Y	AUS	N	N
MF2	48	EXPLAIN S-H-Y EXPLAIN GOOD	S-H-Y	Y	N	Y	AISL	Y	N
MF2	50	PRO1 ENJOY HEAR GOOD GOOD GOOD	GOOD	Y	N	Y	AISL	N	N

MF2		RIGHT RIGHT PRO2 RIGHT RIGHT PRO2	RIGHT PRO2 RIGHT RIGHT PRO2						
MF2	52	RIGHT RIGHT PRO2 RIGHT RIGHT PRO2	RIGHT PRO2 RIGHT RIGHT PRO2	Y	N	N	AISL	N	N
MF2	54		HOT E-S-T	Y	N	Y	AISL	Y	Y
MF2	56		WALK WALK WALK	Y	N	Y	AISL	N	N
MF2	57	LOVE BEACH B-E-A-C-H	BEACH	Y	y	N	AISL	Y	Y
MF2	62	PRO1PL MUST S-A-F-E SCHOOL	S-A-F-E SCHOOL	Y	N	N	AISL	Y	N
MF2	65	POINT PRO1++ NEVER LIKE JAM J-A-M	J-A-M	Y	Y	Y	AISL	Y	Y
MF2	66	NAME Q-U-I-N-C-E HATE GIVE SMALL	Q-U-I-N-C-E HATE GIVE SMALL	Y	Y	N	AISL	Y	N

265

MF3 CLAUSES

SPEAKER	CLAUSE #	GLOSS	SWITCH MATERIAL	INTRA-SENTENTIAL	BOUNDARY	SINGLE WORD	DIRECTION OF CS	FINGER-SPELLING	DOUBLED INSERTION
MF3	7	NOW PRO1 HOME PRO1 M-I-S-S- MY SISTER B-U-T GOOD GOOD G GOOD	GOOD GOOD	Y	N	Y	AUS	Y	N
MF3	8	PRO1 ARRIVE PORTSEA ME	ARRIVE	Y	N	Y	AUS	N	N
MF3	14	PRO1 ARRIVE PORTSEA SCHOOL	ARRIVE	Y	N	Y	AUS	N	N
MF3	16	PRO1 ARRIVE ALL TEACH-US BOTH-US FINGERSPELLING	TEACH-US	Y	N	Y	AUS	N	N
MF3	18	PRO1 FIRST TWO FINGERSPELLING SECOND IRISH FINGERSPELLING ALL	IRISH FINGERSPELLING ALL	Y	N	N	AISL	N	N
MF3	19	DIFFERENT SCHOOL SCHOOL POINT C-A-S-T-L-E CL:G-turrets	SCHOOL	Y	N	Y	AUS	N	N
MF3	21	PRO1 THOUGHT BLACK B-L-A-C-K CL:B-outfit	BLACK	Y	y	Y	AISL	Y	Y
MF3	25	ALL LOVELY LOVELY ALL SCHOOL	LOVELY	y	N	Y	AISL	N	N
MF3	28	PRO1PL PLAY PLAY C-O-W-B-O-Y-S MOTHER-FATHER	PLAY	Y	N	Y	AISL	N	N
MF3	28A			N	Y	N	AISL	N	N
MF3	37	NO U-N-I-T IN C-R-O-Y-D-O-N	U-N-I-T IN C-R-O-Y-D-O-N	Y	N	N	AISL	Y	N
MF3	39	ROPE CL:thin-rope BAD	VAD	Y	N	Y	AUS	Y	N
MF3	42			n	Y	N	AUS	N	N
MF3	43	BUT NO SUBTITLE NO	NO SUBTITLE NO	Y	N	N	AUS	N	N
MF3	45	FUNNY F-U-N-N-Y EXPLAIN	F-U-N-N-Y EXPLAIN	Y	N	N / F-U-N-N-Y	AISL	Y	Y
MF3	51	PRO2 IN PRO2 I-N CHARGE US	PRO2 I-N CHARGE US	Y	N	N	AISL	N	N
MF3	56	POINT NAME-SIGN DRESS CAN'T REMEMBER CAN'T REMEMBER	DRESS CAN'T REMEMBER	Y	N	N	AUS	N	N
MF3	58	NAME-SIGN COME FROM HOSPITAL HOSPITAL HOSPITAL	FROM	Y	Y	Y	AUS	N	N
MF3	60	BREAD BUTTER SPREAD J-A-M ME	SPREAD J-A-M ME	Y	Y	N	AISL	N	N
MF3	61	AFTER TEA TEA PRO1 LAY CL:G-tray BREAD CL:B-piled-up CL:B-tray	TEA ME ME LAY CL:G-tray	Y	Y	N	AISL	N	N
MF3	62	PRO1 CL:F-pull out CL:C-thick-slice BREAD ME GREEDY GREEDY GREEDY	GREEDY GREEDY	Y	N	Y	AISL	N	N