The effect of language input and medium of education on code-switching by Welsh-English bilinguals

Siân Wynn Lloyd
Bangor University

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Supervisor = Prof Margaret Deuchar
Bilingual code-switching

- Appel & Muysken (1987: 1) - "Language contact inevitably leads to bilingualism"

- Mesthrie, Swann, Deumert & Leap (2000) note that bilinguals/multilinguals use knowledge of other language as an extra available resource in order to aid effective communication

- Poplack (1980: 216) - Code switching is recognised as "...a norm in specific situations that exist in stable bilingual communities"
Language Background

- Welsh/English = sticky relationship
  - 1536 Act of Union officially joined Wales to England.
  - 1847 – *Brad y Llyfrau Gleision* The Treason of the Blue Books
  - 1861 – Welsh Not/Note (WN)
  - 1890 – Welsh Language allowed back in the classroom.
Welsh speakers 1891 - 2001

Cyfrifiad / Census

www.byig-wlb.org.uk/
Coupland & Thomas (1990: 1)

“...understanding of ‘the language situation in Wales’ requires attention to the dominant majority language as well as to the threatened minority language; that the nature, use and, of course, the very survival of Welsh in Wales are contingent upon the nature, use, institutional support and social significance of English, historically and in contemporary life”
Study Aims

To ascertain if there is a relationship between extra-linguistic factors and language choice in Welsh/English code switching by measuring the proportion of English words in what is predominantly a Welsh conversation.
Thomas (1982) discovered that age was an important factor when considering ‘language choice’ among Welsh/English bilinguals, with the older generation much more likely to speak Welsh than the younger generation (Thomas, 1982: 209)
Previous Research – Introduction
Welsh/English code-switching

Jones (1993) argued that more code-switching from Welsh to English occurred when Welsh was at a disadvantage or was even excluded in specific areas i.e. in marketing produce, advertising (in the sale of any products).
“...the individual’s experiences as well as language policies have an effect on the degree to which they are accustomed to using language for a specific purpose on specific occasions. Not everyone will have the same opportunities to have the experience of education, work and so forth through the medium of Welsh and this is shown in the way they switch”
Variables of Interest - Age

Jones (1998), as part of her study, observed language use in the large village of Rhosllanerchrugog situated in north-east Wales.

- Her findings indicated that there was a marked loss of some dialectal features between generations.
  - Older residents tended not to use /ð/, often found in noun ending such as ffordd [fɔrð].
  - Youngsters (especially schoolchildren) on the other hand had an increased tendency to use the final /ð/, where /ð/ was used in nearly all possible contexts.

Study also included observations in Rhymney (a former mining town in south-east Wales), and found, like her study in Rhosllanerchrugog, a progressive decline in dialectal features throughout the generations.
Variables of Interest - Age

- Poplack & Sankoff (1984) – Study on Spanish/English bilinguals in Harlem, New York, indicated that younger speakers tended to have a larger proportion of loan words than adults.
  - ‘The trend, subtle though it is, appears ominous because it shows younger people adopting aspects of the dominant language’ (Chambers, 1995:167).
Bilingual children’s language performance is dependent on three factors (Gathercole & Thomas, 2005). These three factors are said to include:

- the amount of language heard in the home.
- the amount of language heard in the school
- socio-economic status (SES)

(see also Oller & Eilers, 2002; Gathercole, 2002a/2002b; Hoff & Elledge, 2005; Gathercole, Thomas & Laporte, 2001).
Oller & Eilers (2002) and Gathercole (2002a & 2002b) directly compared Spanish/English children to monolingual groups of Spanish or English speakers.

- Both studies found that children who were receiving Spanish as the only form of language input at home performed better on the Spanish tests compared to other bilingual speakers.
- Speakers who spoke English only at home also outperformed others on the English tests.
Variables of Interest – Input

Gathercole, 2002a & 2002b) also looked at specific language structures and found that the language of schooling influenced the acquisition of gender in Spanish.

A similar finding was reported in relation to Welsh/English bilingual children (Gathercole, Thomas & Laporte, 2001).

- The greater the amount of Welsh input heard, the better the performance on Welsh language tasks.
Variables of Interest – Input

- Hoff & Elledge’s (2005) study looked at the vocabulary and grammatical knowledge of 39 young bilingual children (1:4 – 2;6 years of age) who were exposed to two languages (mainly English/Spanish) in the home and compared them with 63 monolingual English children.
  - The higher the education and occupation level of the mother, the more positive the effect on the bilingual children’s vocabulary and grammatical development in English.
  - The amount (percentage) of input from another language was also found to affect the bilingual children’s ability in English, i.e. the greater the input from the other language the lesser the score on the tests.
These studies showed that bilingual children perform differently on language tests depending on the nature of language use in the home and at school.

This current study attempts to ascertain if similar differences may be found in adult speakers language use when comparing variables related to medium of education or parental input within an adult Welsh/English speech act.
Hypothesis

- Younger speakers will use a larger percentage of English instances than older speakers.
- The greater the amount of input received, the lower the percentage of English instances will be. This is true of both home language input and language of education.
Methodology – Data Collection

The corpus used consists of:
- 40 hours and 9 minutes of recorded spoken data
- 69 separate audio recordings and corresponding transcripts.
- A total number of 153 bilingual Welsh/English speakers from across Wales (although most were mainly located in North Wales) were recorded as part of the data collection process.
- 121 speakers who were brought up in North Wales were used in the study reported here.
Methodology – Data Collection

- The location was often chosen by the participants themselves. Recordings usually took place, in the home, workplace or university.
- In every recording, the speakers were already acquainted with each other, and were either friends, colleagues or family members.
- Most of the recordings consist of conversations between two people.
- The speakers were recorded for around 30 minutes using either radio microphones and a Marantz digital recorder, or a minidisk recorder with a stand-alone microphone.
Methodology - Questionnaire

- The questionnaire itself contains a total of twenty questions that cover various variables of interest:
  - Age of Welsh/English language acquisition.
  - Welsh/English proficiency
  - Home language
  - Language of education
  - Ascertain individuals’ view on languages’ importance or affectiveness
  - Nationality
  - Self-reported code-switching use and attitude towards code switching.
Methodology- Transcription

Transcribed using the CHAT system (MacWhinney, 2000)
www.talkbank.org

- Main Tier
- Gloss Tier
- Translation Tier (English)

*JEA: mae@1 (y)r@1 te@1 (y)ma@1 (y)n@1 stiwo@1 Siân@0 .
%gls: be.3S.PRES DET tea here PRT stew.NONFIN Siân.
%eng: this tea is stewing Siân

*ART: Siân@0 ti@1 isio@1 paned@1 ?
%gls: Siân PRON.2S want cuppa
%eng: Siân do you want a cuppa ?

*RES: &=noise .
*JEA: &=sigh neu@1 dw@1 i@1 (we)di@1 roid@1 o@1 mewn@1 tebot@1 a@1 phopeth@1 i@1 ti@1 &=laughs .
%gls: or be.1S.PRES PRON.1S PRT.PAST put.NONFIN PRON.3SM in teapot and everything for PRON.2S
%eng: or I’ve put it in a teapot and everything for you
Methodology - Transcription

Language Marking:
- @1 = Welsh
- @2 = English
- @0 = Undetermined
Methodology - Transcription

CLAN - part of the CHAT system (MacWhinney, 2000)

- Enables the transcriber or researcher to search for instances of words, markers in the text as well as features unique to every individual speaker.
- As every word was marked with a language marker I was able to search within the transcripts of interest for the number of @1 words (Welsh), @0 words (undetermined) and more importantly for this study, the number of @2 words (English) used by every single speaker.
Results

The percentage of English words used by the speakers was considered to be the Dependent Variable (DV) for most of the following calculations. The Independent Variable(s) (IV) were determined by the various variables of interest calculated from the data obtained from the questionnaire.
Results - Age

There was a statistically significant difference at the p<.05 level in the percentage of English words found in the seven age groups [F(6, 114) =3.17, p= .006].

Figure 1 - The mean percentage of English words used by the different age bands. A * indicates that a statistically significant difference was found between groups.
Results – Input
Parental Language

Speakers were split into three groups according to the input they received at home:

- Welsh and English
- Welsh
- English

Figure 2 – The % of English words used by speakers with varied parental input. N, indicates the number of speakers in each group.
Primary Education

No statistically significant differences were found between the primary language and percentage of English instances used [$F(2, 118) = .60, p=.55$].

Figure 3 – The mean % of English words used and language of primary education
Results – Input
Language of Education

Secondary Education
A statistically significant differences was found at the p<.05 level, between the secondary language and percentage of English instances used [F(2, 113) = 4.43, p=.014].

Figure 4 – The mean % of English words used and language of secondary education. A * indicates that a statistically significant difference was found between groups.
A statistically significant difference at the $p<0.5$ level was also found in the percentage of English words used by the different groups within the combined language of education (primary school and secondary school) variable $[F(2, 118) = 5.21, p=.007]$.

Figure 5 – The mean percentage of English words used depending on combined (primary and secondary language of education. A * indicates that a statistically significant difference was found between groups.
Results
Language of Education & Age

A statistically significant difference at the $p<.05$ level was found between language of primary education and age in years [$F(2, 117) = 34.38, p<.0005$]; combined language of education and age in years [$F(2, 118) = 27.84, p<.0005$] as well as secondary education and age in years [$F(2, 118) = 5.61, p=.005$]

Figure 6 - The mean age of speakers in years and language of education received at secondary education; secondary and primary education combined (Combined Education) and primary education.
Discussion of Results - Age

Predictions

- As predicted - Younger speakers tended to use a larger percentage of English instances on average than older speakers.
  - A significant difference of this kind was found between speakers aged between 60-69 year olds and speakers aged between 10-19 and 20-29 years of age.
  - Speakers aged between 30-39 years of age also leaned towards significance and the overall trend indicates that there is a marked decrease in the percentage of English words used until the 70+ age group.
Discussion of Results – Input Home Language

Predictions
- Contrary to previous predictions no statistically significant difference was found in the percentage of English words used when looking at the language of the home.
- However, the numbers were not equal across groups and a larger number of speakers might have shown different results.

Table 3 – The number of speakers and mean and standard deviation of each group according to the language of the home

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welsh &amp; English</td>
<td>22</td>
<td>4.33</td>
<td>3.28</td>
</tr>
<tr>
<td>Welsh</td>
<td>89</td>
<td>3.81</td>
<td>4.57</td>
</tr>
<tr>
<td>English</td>
<td>8</td>
<td>1.88</td>
<td>0.98</td>
</tr>
</tbody>
</table>
Predictions

- In direct contrast to predictions made, the findings indicated that speakers who were educated through the medium of English or in Welsh and English at secondary or combined (primary and secondary) education, tended to use a smaller percentage of English words on average than those who went through Welsh medium education.

- However, no significant difference was found between primary school language and number of English instances found, it is worth noting once again that numbers were not equal across groups.
Discussion of Results
Language of Education & Age

- Individuals who received their primary school education entirely in Welsh tended to be younger than those who either had part of their primary school education in Welsh and in English and those who had their education entirely through the medium of English:
  - Speakers who had received their primary education through the medium of Welsh were 17 years younger on average (accounting for a large amount of individual variation) than speakers who had received their primary school education through the medium of English.
  - They were also 10 years younger on average than speakers who had received their primary school education bilingually in both Welsh and English.
Discussion of Results
Language of Education & Age

Overall this finding suggests that English language education received by older speakers may have affected their language use:

- However this finding also aids us in explaining the increase in the percentage of English words used by speakers over 70 years of age. Speakers in the oldest age band may use more English instances due to the influence of English medium schooling terminology i.e. numbers.

- These results also suggest that the level of Welsh language input required by the older speakers in order to aid language development as children (Gathercole & Thomas, 2005) was not reached and therefore they do not show the proficiency and bilingual competence reflected in the younger speakers’ speech.
Overview – Future considerations

- Conventions used in the transcription process may affect word allocation i.e. @2=English, @1=Welsh or even @0=undetermined.
- Questions which had answers omitted in the questionnaire (although these are only few) may skew the data.
- Increasing the number of speakers could aid in normalising the data further.

However - The data used here does allow us to quickly observe differences in language use across generations.
Language Shift

According to Fasold (1984)

‘Language maintenance and shift are the long-term, collective consequences of consistent patterns of language choice’ (1984: 239).

The fact that all Welsh speakers are now also bilinguals may be another cause for concern according to Fasold as

Jones (1998) is of the view that:

‘it is at best rare for the same language to be spoken in the same way throughout an entire speech community’ (Jones, 1998: 61).

- dialect death observed in her study of the languages of villages in both North and South Wales, could be considered a bye-product of standardisation where a marked loss of some dialectal features were found among younger speakers compared to the speech of older residents.
- The fact that many of the youngsters who showed a lack of dialectal variation were schoolchildren indicated to Jones that the standard variety of the Welsh language used in schools was affecting language use in communities.
Conclusion

The way in which the English language is incorporated into a predominantly Welsh conversation between speakers gives us an idea of how both languages can be and are used side by side in north Wales.

Although the short-term prospects of the Welsh language are relatively secure, in order to achieve long-term language survival, numbers of speakers will need to increase further. This will only be achieved by collective factors such as:

- further language planning strategies
- educational input
- language transmission in the home
Diolch am wrando
Thank you for listening