

CHAPTER 4: FACTORS CONTRIBUTING TO LANGUAGE TRANSMISSION IN BILINGUAL FAMILIES: THE CORE STUDY--ADULT INTERVIEWS

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The core study consisted of interviews of adults in Wales. The following details the process undertaken to conduct the interviews and the results that the interviews reveal.

METHOD

Participants

A total of 302 parents were interviewed. The parents that were interviewed were distributed by origin home language of the parents, age of the target child, and gender of the children in the family as in Table 4.1. As noted above in the Methods section, in the 'BIL' category, the parent in each pair who grew up in a two-language home was the one who was interviewed; also, only parents who were able to speak Welsh were assigned to and interviewed in the E-E category.

The participants were distributed by location as in Table 4.2.

Procedure

Each parent was interviewed, in the language of his or her choice, by a trained Research Assistant (RA) who was a native bilingual speaker of Welsh and English. The interview took approximately forty-five to sixty minutes per adult. The interview questions were designed to elicit a variety of information, as outlined below. Participants were able to elaborate on their responses, and any spontaneous responses and/or any additional comments were noted. Each interview was taped using a Marantz digital recorder to allow for post-interview analysis of the responses if needed.

Interview Design

Interviews aimed to elicit information along a wide range of variables that might be significant to the outcomes of the study. These included the following, in addition to (1) the core information on the language(s) the parents speak to their children and the language(s) that their children speak:



(2) Language background information on participants--e.g.,

- The language(s) that their own parents, grandparents, and other relatives spoke to them when they were children;
- The language(s) they themselves used in speaking with those relatives;
- The language(s) that other individuals such as teachers (both in and outside the classroom) and friends used in speaking to them when they were children;
- The language(s) they themselves used in speaking to those individuals;
- Participation as a child in Welsh- and English-related activities, such as *eisteddfodau, yr Urdd*, Scouts, etc.
- Current residence and previous areas where they have lived, and the language(s) used in those communities

(3) Current language abilities of and use by parents -- e.g.,

- Language(s) they currently speak, understand, read, and write;
- Confidence in speaking formal and informal Welsh and English;
- Practices relating to language, e.g., in choice of television and radio programmes;

(4) Non-language background information on participants--e.g.,

- Age;
- Profession;
- Education

A number of studies have shown socio-economic status (SES) to be an influential factor in transmission practices (e.g., Harrison & Piette, 1980). Our own work has also shown SES to have an influence on children's attainment levels in the Welsh language (e.g., Gathercole & Thomas, 2005; Gathercole, Laporte, & Thomas, 2005; Gathercole 2002; Oller & Eilers, 2002). Therefore these elements indicative of SES were included as background variables in the study.

(5) Geographical location

- City, town, or village where the family presently resides;
- Population of the city, town, or village;
- Percent and number of speakers of Welsh.

(6) Parental attitudes towards Welsh and English--e.g.,

- Parent's views on whether Welsh is important for education;
- Parent's views on whether Welsh is important for employment;
- Parent's views on whether Welsh is important for quality of life;

Attitudes towards language use in relation to the child and how decisions concerning language were made.

(7) Information on the language environment of the target child:

- The language(s) that parents, grandparents, and other relatives speak to the child;
- The language(s) the child uses in speaking to those relatives;
- The language(s) that other individuals such as teachers (both in and outside the classroom) and friends use in speaking to the child;
- The language(s) the child uses in speaking to those individuals;
- Participation of the child in Welsh- and English-related activities, such as *eisteddfodau*, *yr Urdd*, Scouts, etc.

In order to minimise experimenter bias, the questions were worded in such a way that the parents could feel comfortable expressing either positive or negative attitudes towards the language.

The resulting questionnaire is shown in Appendix 4.1.

Procedure

An RA contacted the family, usually by phone, to arrange an interview with the parent. In some cases, we specifically asked for the mother or the father to be interviewed, to help fill the participant cells. In most cases, the researcher then went to the participant's home to interview him or her there. In a few cases, the interview was arranged to take place at another location--e.g., at a community centre or in a mobile laboratory.

When the RA met with the parent, s/he asked the parent if s/he preferred to have the interview in Welsh or in English. In addition, participants were informed that if there was any question that they preferred not to answer they were free to skip that question. Immediately after each interview, the RA made notes on an observation sheet concerning language interaction in the home during her visit there. These observations are reported in Chapter 6.

ANALYSIS OF RESULTS

The responses in the interviews were quantified and entered into Excel and SPSS data files in order to conduct tests for correlations between variables in the study and the answers to the interview questions. The coding used for analyzing the responses is shown in Appendix 4.2.

The primary dependent variables of the study were (1) what language(s) the target child spoke (Welsh, Welsh & English, English) and (2) what language(s) the child's parents spoke to him or her. Correlational analyses were conducted

to examine potential significant correlations between the dependent variables of the study and the independent variables.

The analyses concentrated on the relationship of the language(s) spoken by the child and the language(s) used by the parents in speaking to the child with each of the following:

(1) The major categories of the study:

- (a) Adult/Parental category (W-W, W-E, E-W, BIL, E-E), child's age group, and language of the child
- (b) Parental category and language spoken to the child
- (c) Language of the interview, who was interviewed (mother versus father), and gender of children in the family

(2) Language background of participants

- (a) Interviewee's language use with immediate family as a child
- (b) Interviewee's language use with extended family, friends, teachers as a child

(3) Current language abilities and use by parents

- (a) Language(s) parents currently speak, understand, read, and write
- (b) Confidence in speaking Welsh and English
- (c) Current language use by parents

(4) Non-language background of participants

(5) Geographical location

(6) Parental attitudes towards Welsh and English

- (a) General attitudes
- (b) Attitudes in relation to their child's upbringing and how decisions concerning language were made

(7) The language environment of the target child

We will examine each of these in turn.

(1) MAJOR CATEGORIES

A first set of correlations examined the child's language, the child's age group, the adult category, and the language(s) spoken by the mother and father to the child (Qs 10a, 11a). The significant correlations obtained are shown highlighted in yellow in Table 4.3.

(A) Parental Category, Child's Age, and Language of the Child

As can be seen in Table 4.3, Adult Category correlated significantly, at $r = .428$, $p < .000$, with the language(s) the child speaks. Analysis of variance in which parental category and child age group were treated as variables showed a significant effect of Parental Category, $F(4, 284) = 14.3$, $p < .000$, and a significant interaction of Parental Category X Child Age, $F(4, 284) = 4.53$, $p < .001$. Figures 4.1 and 4.2 show the child's language in relation to the parental category at the lower and higher child ages.

For the Parental Categories in general, the W-W group was significantly different from the E-W, BIL, and E-E groups, Scheffe's $p < .008$, and nearly significantly different from the W-E group, Scheffe's $p < .062$. The other groups were not significantly different from each other. The interaction of Parental Group with Child Age, however, reveals that at the younger age, the W-W group were significantly different from the BIL and E-E groups, Scheffe's $p < .000$, and the W-E group from the E-E group, Scheffe's $p < .03$, and at the older age, the W-W group were significantly different from the BIL and E-E groups, Scheffe's $p < .04$. As can be seen in Figure 4.1, the W-W group had more than twice as many only-Welsh-speaking children than any other group at the younger age, and more than four times as many only-Welsh-speaking children at the older age than the other groups (Figure 4.2). As was the case with the Initial Response sheets, however, the dominant pattern for all groups at the older ages was for children to speak both languages.

Because the analyses with the Initial Response sheets revealed some interesting patterns relating to families of the BIL type, further analyses were conducted on this group. An ANOVA in which the partner's language background and the child's age group were treated as variables revealed significant main effects of the partner's language, $F(3,61) = 3.23$, $p < .03$, and of the child age group, $F(1,61) = 4.35$, $p < .05$. Figure 4.3 shows children's language(s) broken down for the BIL Group according to the partner's language and the child's age. It can be seen that at the younger age, a W&E parent who has a W only partner (or who is single) is likely (80% or more) to have a child who speaks Welsh. A W&E parent who has either an E only or a W&E partner is less likely (43 - 57%) to have a child who is Welsh-speaking at this younger age. At the older age, the likelihood is that, regardless of the parental language combinations in the BIL group, the child will speak both languages. However, the families in which a BIL parent has either an English-only-origin partner or a Welsh&English-origin partner may still have some English-only children at this age.

IMPLICATIONS

As the data from the Initial Response sheet showed:

(A) For children under 4;6, the language spoken by the child is directly related to the language or languages of the homes in which the parents grew up:

- (i) **W-W:** Virtually all families (97%) in which both or a single Welsh-speaking parent(s) grew up in homes in which only Welsh was spoken have children who speak Welsh. These parents are also more likely to have children under 4;6 who speak only Welsh than families in which at least one parent did not grow up in a Welsh-only home.
- (ii) **W-E and E-W:** Families in which one parent grew up in a Welsh-only home and one grew up in an English-only home are likely to have children under 4;6 who speak Welsh (when the 'NA' cases, in which children were not yet speaking, are excluded, 92% of the W-E and 84.2% of the E-W children under 4;6 speak Welsh). The statistics show that these groups are not significantly different from each other, nor from the W-W group. However, the W-E group shows a tendency to have slightly more Welsh-speaking children than the E-W group at this age, indicating that the mother's language may have an 'edge' on what the child speaks at the younger age. Note, however, that by the older group, from 4;6 on, the children in these two groups look identical. (See Figures 4.1 and 4.2.)
- (iii) **W&E:** Patterns in families in which one parent grew up in a Welsh&English home are influenced by the language of the partner parent:
 - (a) As we saw with the Initial Response sheet, W&E-W, W-W&E parents are likely (80% to 100%) to have children under 4;6 who speak Welsh, either Welsh-only (20% to 33%) or Welsh alongside English (60% to 67%).
 - (b) **W&E-E and E-W&E:** Also as was the case with the Initial Response sheet, if a Welsh&English-origin parent is paired with an English-only-origin partner, their children under 4;6 are less likely to speak Welsh (43% to 57%). Furthermore, if the child does speak Welsh, it is (100%) likely to be alongside English. As was the case in comparing children of W-E and E-W parents, children of E-W&E parents are slightly more likely to speak only English at this age than children of W&E-E parents, again showing a slight tendency for the mother's language to have the 'edge' at this age. This must be viewed with caution, however, since by the older age, it is the W&E-E group that still has some children who speak only English (see Figure 4.3).

(c) Unlike what was found with the Initial Response sheet, parents in the W&E-W&E category can be seen here to have children under 4;6 who are only 50% likely to speak Welsh. (We will explore the parents' pattern of speech to the children below.)

(d) W&E Single: Also dissimilar to what was reported for the Initial Response sheet, these data show that Welsh&English-origin single parents all have children under 4;6 who speak Welsh.

These results for BIL parents will be explored further below.

(iv) E-E and E Single: Patterns in families in which parents come from English-only backgrounds show that even there children under 4;6 may speak Welsh (38.4%), most likely alongside English.

(B) For children between 4;6 and 7;11, the clear pattern is for children in all parent categories to move towards speaking Welsh. The only exceptions are for the W-W group, 36% of whose children speak only Welsh, and for the E-E group, 18% of whose children speak only English. Thus, as noted in relation to the Initial Response sheets, within families of all types children become progressively more bilingual as they enter school. This goes two ways:

(i) Families with monolingual-Welsh-speaking children at younger ages tend to have bilingual children (i.e., their children learn English) at the early school ages.

(ii) Families with monolingual-English-speaking children at younger ages tend to have bilingual children (i.e., their children learn Welsh) at the early school ages. Thus, even parents who grew up in English-only-speaking homes are willing to have their children learn Welsh.

As noted above, the transition to bilingualism probably occurs because of schooling. The English-speaking children learn Welsh in school (either because of Welsh-medium education or because of interaction with Welsh-speaking peers), and presumably the Welsh-speaking children learn English either through school (because of some English instruction in the school or because of interaction with English-speaking peers) or through contacts with the larger community.

(B) Parental Category and Language Spoken to the Child

Table 4.3 also reveals a high correlation between the Parental Category and the Language(s) Spoken by the Mother and the Father to the child, $r = .59$ and $r = .47$, $p's < .000$. (The languages spoken by the mother and father to the child also correlate significantly with the language(s) spoken by the child, at $r = .47$ and $r = .42$, $p's < .000$, respectively. We will see below, in relation to the child's language environment, that the languages spoken by the parents to the child also correlate extremely highly with the language that the child uses in return when speaking back to the parents.) The patterns of parental speech to their children are shown in Figure 4.4. As we saw with the Initial Response sheets, parents' speech to their children is highly correlated with the speech that they heard as children in their homes. This is especially true in cases in which the parent with some Welsh-origin background is partnered with another parent with Welsh-origin background. Thus, in such groups, including W&E-W&E groups, at least 75% of parents speak in Welsh (either alone or in combination with English) to their children. In fact, on closer examination, it is found that in the W-W category there is only a single case involving someone who does not speak Welsh to children. This is the case of a single W-origin father who does not speak Welsh to his children; his case is reported below in Chapter 9, on interesting cases, Case 4.

The major exceptions to the finding that Welsh-origin parents speak Welsh to their children can be found in the group of W&E origin parents who either are partnered with E-only-origin partners (i.e., E-W&E fathers and W&E-E mothers) or are single. It can be seen in Figure 4.4 that at most 50% of such parents use Welsh in speech to their children.

Potential correlations within this BIL group for their speech to their children in relation to the partner's language background are shown in Tables 4.4 A and B. These Tables show significant correlations of $r = .350$, $p < .033$, between the BIL mother's language spoken to the child and the language background of her partner and of $r = .707$, $p < .000$, between the BIL father's language spoken to the child and the language background of his partner. On closer examination of the data, in fact, it is found that of 16 BIL mothers who speak mostly or only English to their children, 9 have partners who grew up in E-only backgrounds and of 9 BIL fathers who speak mostly or only English to their children, 7 have partners who grew up in English-only families.

It is of note that the Child Age Group did not show any significant correlation with the language used by the mother or father in speaking to their children (see Table 4.3). This suggests that there is no significant change with age in the language parents speak to their children between the younger and older ages (and, thus, that changes in the child's use of language between the two ages must be due to other factors) (see, however, a few rare exceptions highlighted in the chapter on Interesting Cases, Chapter 9). In fact, the languages reported to be used by mothers and fathers at the younger and older ages in each of the

Parental Categories are strikingly similar at the two age levels. See Figures 4.5 and 4.6.

IMPLICATIONS

As we saw in relation to the Initial Response Sheets, parents tend to speak to their children the language(s) that they themselves were spoken to as children.

This generalization is modified somewhat in accordance with a parent's partner's home-origin language. The partner's home-origin language is most influential in the case of Welsh-speaking parents who grew up in BIL homes: Parents with Welsh&English home origins who are partnered with Welsh-only-origin partners are more likely to speak Welsh to their children (76.9% to 90.9%) than are Welsh&English home parents who are partnered with English-only origin partners (43.9% to 46.7%). Welsh&English-origin parents who have Welsh&English-origin partners fall between these two, but are likely to speak Welsh to their children (75%).

Again, the implication of this finding is that parents who grew up in homes hearing both Welsh and English may be comfortable speaking either Welsh or English to their children, so their practices in speech to their own children are influenced by the linguistic abilities or practices of their partners.

Finally, these results suggest that parents do not on the whole change the language(s) they use in speech to their children. What language gets established at an early age as the language used by the parent in speech to the child is the pattern that continues through at least these early school years.

(C) Language of the Interview, Who was Interviewed, and Gender of Child

Before moving on to the other major factors that may affect parental language transmission, it may be instructive to examine the language in which the parents chose to have the interview, whether there was a major effect of whether the mother or father was interviewed, and whether the gender of the children in the family affected patterns.

The correlations of these factors with the major factors of the study are shown in Table 4.5. As can be seen, the choice of language for the interview was significantly correlated with the Parental Category, as well as with the languages the parents speak to their children and with the children's spoken language(s). Figure 4.7 breaks down the language chosen for the interview on the basis of Parental Category. Clearly parents' choice was usually related to the language(s) of the home when they were children. It is of note, however, that even among the parents who grew up in English-speaking homes (i.e., W-E

fathers, E-W mothers, E-E mothers and fathers) fully 39% to 55.6% chose to have the interview conducted wholly or partly in Welsh.

Which parent was interviewed did not have any major effects on results. The only major factor with which the parent interviewed (mother or father) correlated was the language used by the father in speech to the children, $r = .191$, $p < .001$. The mean score (ranging from a high of 5 for 'always Welsh' to a low of 1 for 'always English') for language used by the father in speech to children is shown in Figure 4.8 for each Parental Category, according to whether the mother or father was being interviewed and reporting this information. It can be seen that in general, except in the W-W category, father interviewees reported higher levels for the father's use of Welsh in speech to children than mother interviewees did.

It is likely that this effect has to do with fathers' self-selection for being interviewed. In many cases, fathers seemed more reluctant to be interviewed, or to be less available for interviews, than mothers. The effect reflected in Figure 4.8 suggests that fathers may have been more willing, in fact, to be interviewed if they spoke Welsh to their children than if they did not.

The gender of the interviewee did not correlate in any other significant way with the major factors of the data.

The genders of the children in the family did not significantly correlate with any of the major factors of the study. This suggests that the gender of the child or children in a given family played no significant role in the language the children spoke or in the language(s) used by the parents in speaking to the children. Gender of the children did correlate, however, with the language used for the interview, $r = .114$, $p < .05$. This appears to be related to a greater use of Welsh among parents with children of both genders, who chose Welsh 72.5% of the time, while parents of female-only and male-only children chose Welsh 60.7% and 62.7% of the time.

To explore this further, the patterns within each adult category were examined. These are shown in Figure 4.9. As can be seen, it is in the E-W and the E-E groups that parents with children of both genders chose to use Welsh more often than parents with children of only a single gender. It is likely that this effect relates to the fact that parents with children of two genders are more likely to have more children than parents with only female or only male gender, which in turn suggests that they are likely to have children who are older. Since the E-W mothers and the E-E parents are those who grew up in English-speaking homes, those who have older children are more likely to have learned and practiced Welsh with their growing children. Thus, this effect is likely due to greater facility with Welsh among these parents as their children learn Welsh. Only further analyses will confirm this speculation, but it predicts that it is ultimately not the gender of the children that is responsible, but the number and ages of the children. Thus, we would expect that with further analyses, it will turn out that it is

those English-origin parents who have older children, regardless of gender, who are the ones who are more likely to have used Welsh for the interview.

If these speculations are correct, it raises the issue of the acquisition of Welsh by the parents in these families and suggests that as the children of English-origin parents become fluent in Welsh, their parents also become more fluent in Welsh.

IMPLICATIONS

The high correlations between the language chosen for the interview with the language spoken by the parents to the child and with their adult categories (based on languages spoken in their homes when they were children) suggest a level of comfort and ability in that language. This suggests further that language choices are made primarily on the basis of these factors.

Furthermore these data suggest that studies conducted through interviews of fathers versus mothers will largely yield the same results--i.e., that results obtained are not dependent on whether the mother or father was interviewed.

Finally, these data suggest that English-origin parents in Wales are receptive to learning and using the Welsh language: A high percentage of English-origin parents chose to conduct the interview in Welsh. Furthermore, the data are suggestive that English-origin parents may well gain fluency in the Welsh language through their own children's acquisition of the language.

POLICY RECOMMENDATIONS

These data reinforce and underline some of the policy implications already suggested from the Initial Response Sheets:

PR 1. All surveys, including the census, that ask parents about the language(s) spoken by their child(ren) must distinguish between children under age 4 1/2 and children over age 4 1/2 (that is, below school age and above school age).

PR 2. Any data obtained regarding the language(s) spoken by children under 4 1/2 should not be regarded as indicating the ultimate language(s) that such children will end up speaking in the end.

PR 3. All data collected concerning language patterns of parents in relation to their children must classify parents according to their home-origin-languages for the data to be meaningful.

PR 4. Parents whose own language backgrounds make it difficult to speak to their children in Welsh are clearly willing to have their children learn Welsh, as evidenced by the number of English-origin-background parents whose children speak Welsh once they are in school. Programmes should be developed to target these children at younger ages, so that these children's Welsh acquisition can begin at a younger age (since the younger children are when they begin to learn a language the better the outcome).

PR 5. Adults learn child-directed speech through their own experiences hearing child-directed speech being spoken, when they were children themselves or as adults. Parents speak to children using child-directed speech patterns that they have learned. Parents who have not experienced Welsh child-directed speech will likely not be using Welsh in speech to their own children. Programmes should be developed to expose such parents to Welsh child-directed speech. Such programmes might consist of, e.g., library or play-group schemes in which Welsh-speaking adults (informally) model Welsh child-directed speech to children. By regularly hearing Welsh child-directed speech, parents from home language backgrounds in which they did not experience Welsh child-directed speech will become familiar with and 'pick up' conventional child-directed speech in Welsh.

Such programmes should meet regularly enough (e.g., once a week) for the adult to gain experience hearing such speech. They should also be pleasurable for both the parents and the children--i.e., they should entail play-like activities engaging both the parents and the children, not 'teaching' type activities in which parents are 'taught' child-directed speech.

PR 6. Parents who grew up in two-language homes appear comfortable speaking either language to their children. They can therefore adjust which language they choose on a given occasion, and their choice appears influenced by the language background (therefore, presumably, the language abilities and preferences) of their partners. Thus, a W&E-origin parent who is paired with a W-speaking partner will speak Welsh to his or her children; a W&E-origin parent who is paired with an English-origin partner may tend to speak more English to his or her children. Such a phenomenon may arise very naturally from speakers' sensitivities to the language abilities of others who may be participating in ongoing conversations. This leads to a number of recommendations:

- a. The WLB should promote clubs and/or activities in which



Welsh-speaking single adults can meet other Welsh-speaking single adults.

b. The WLB should promote clubs and/or activities in which English-origin adults paired with Welsh-speaking partners--particularly those who grew up in two-language homes--can be encouraged to participate in and find pleasure in experiences involving the Welsh language. The effect will be that not only will English-origin parents' abilities with Welsh improve but also the contexts in which they feel comfortable speaking with their partners in Welsh will expand. These effects, in turn, will mean (1) that the English-origin partners may themselves speak more Welsh to their children, and perhaps more importantly (2) that their Welsh-speaking partners will use more Welsh in the home with them and with their children.

These activities might involve gigs of Welsh bands, clubs in which Welsh dancing can be learned, and so forth.

We can add a few more recommendations on the basis of the Interview results:

PR 7. It is clear that parents' language patterns in speech to their children get established very early, and these established patterns are retained throughout these early years. Programmes should be developed to facilitate the use of Welsh in interaction between parents and their children as early as possible after the birth of the child. These should be programmes that create contexts in which such language interaction is facilitated, such as parent-baby activities (e.g., puppet shows, parent-baby exercise classes, and the like) in Welsh.

PR 8. These data also clearly indicate that parents who come from English-home-origin backgrounds are clearly receptive and open to the use of Welsh with their children. Since the children of these parents and their acquisition of Welsh are key to the survival and health of Welsh, these parents from English-origin backgrounds should not be forgotten when policies and programmes related to the transmission of Welsh are set up. In addition, the suggestion that these parents' Welsh may improve through language interaction with their own children is also worthy of further study and consideration.

(2) LANGUAGE BACKGROUND OF PARTICIPANTS

Information on the language background of the participants was obtained from Questions 1 through 9 of the questionnaire.

(A) Interviewee's Language Use with Immediate Family as a Child

Questions 1 through 5 explored language interactions in the immediate family when the parent interviewee was a child. The correlations between the child's language, the parental category, the parents' speech to the child, and these language background variables, as well as the consistency with which the parents have lived in Welsh-speaking areas, are shown in Table 4.6. As can be seen in the Table, there are many very high correlations.

First, there are extremely high correlations ($r's \geq .97$, $p's < .000$) between the language spoken by their own parents and siblings to the interviewees when they were children and the language they spoke back to each of them. Similarly, the patterns within the family in general (i.e., bottom right corner of Table 4.6) correlate highly, at $r's \geq .73$, $p's < .000$. While this result may not be surprising, the fact that the correlations are so high highlights the importance of the family members' language to the interviewee as a child. As expected, because of the design of the study, the language interaction in the family, especially the language spoken by each parent to the interviewee, correlates highly with the parental category ($.587 < r's < .601$) (confirming the validity of the adult categories). But perhaps less straightforwardly, the speech of the parents to the interviewee also correlates very highly with the interviewee's own ability to speak Welsh ($.719 < r's < .762$), and negatively with the interviewee's ability to speak English ($-.620 < r's < -.607$). Even the speech of the siblings to the interviewee correlates highly with these language abilities of the interviewee (W: $r = .651$, E: $r = -.519$).

A further finding revealed by these correlations is that the language that the mother and father speak to the target child is highly correlated with the language that was used in interaction between the interviewee and his or her own parents, $.363 < r's < .478$. When we control for whether it was the mother or father being interviewed, and examine only correlations between their same-sex parent to them as children and their own speech to their children, the correlations are even higher: $r = .660$, $p < .000$, for mother interviewees and $r = .466$, $p < .000$, for father interviewees.

With regard to the child's language, there is a high correlation between the language that the child is reported to speak and the languages used between the interviewee and his/her parents when he or she was a child, $.324 < r's < .36$, $p's < .000$.

One final high correlation worthy of note is that between the interviewee's ability in Welsh and his/her having lived in Welsh-speaking communities--in general, the more consistently the interviewee lived in Welsh-speaking communities, the higher their (assessment of their) command of Welsh, $r = .345$, $p < .000$, and the lower their (assessment of their) command of English, $r = -.255$, $p < .000$.

IMPLICATIONS

These results reinforce the conclusion already drawn that parents' speech to their child is highly influenced by the language(s) that their own parents spoke to them when they were children.

Furthermore, the language(s) the parent speaks to the child is highly correlated with the parent's abilities in that language, which in turn is influenced by having lived in areas in which Welsh was a language of the community.

(B) Interviewee's Language Use with Extended Family, Friends, Teachers as a Child

Questions 6 through 9 explored the language background of the interviewees further, to gain information on language interaction when they were children beyond the immediate family, with friends, with extended family members, in school, and in social activities. The correlations obtained are shown in Table 4.7.

What is immediately apparent is the high correlations between the languages used between the mother, father, and siblings with the interviewee and those used between friends, teachers, grandparents, and aunts and uncles and the interviewee. The r values range between .587 and .782, p 's <.000. Even with others outside the family, the correlations are significant, at $.148 < r < .203$, p 's <.015. These high correlations suggest a complex network of people, all sharing a similar language, in the linguistic 'constellation' of the interviewee when s/he was a child. And, as was the case in relation to the language interaction in the immediate family, there are high positive correlations between the language of interaction with friends and extended family and the interviewee's ability to speak Welsh ($.610 < r$'s $< .695$, p 's <.000) and negative correlations with the interviewee's English ($-.403 > r$'s $> -.536$, p 's <.000). (With 'others', the correlations are also significant, but lower, at $r = .199$, $p < .001$, for Welsh and $r = -.223$, $p < .000$, for English.) The interviewees' involvement as a child in activities in which Welsh was used also correlates highly both with the languages spoken by their parents and siblings to them, r 's = .754, .701, .747, p 's <.000, and with their ability to speak Welsh, $r = .647$, $p < .000$, and English, $r = -.524$, $p < .000$.

It is of note that one aspect that did not seem to correlate heavily with language interaction or language abilities in the interviewee is the frequency with which the interviewee saw extended family members such as grandparents and aunts and uncles. (One correlation that did hold was between the frequency with which they saw grandparents and the frequency with which they saw aunts and uncles. This suggests information about the family connectedness, not language use.) This indicates that, while the network of interaction in the language correlates with language abilities in the interviewee, the frequency with which those interactions took place was less important.

As in the case of the high correlation between the language of interaction in the immediate family, the language of interaction in the wider social interaction with friends, teachers, and extended family members correlates highly with the parental category, $.436 < r's < .549$, $p's <.000$ (again supporting the validity of these categories), and with the language spoken by the mother and father to the target child, $.276 < r's < .427$, $p's <.000$.

Similarly, the language of the target child correlates significantly with the languages used by the interviewees in interaction with friends and extended family as a child. The correlations are lower ($.164 < r's < .338$, $p's <.005$), however, than they were with the interviewee's language use with immediate family members. The effects in both cases--i.e., of both the immediate family and the extended family and friends--may be either direct or indirect. It may be direct if the patterns of interaction when the interviewee was a child helped to establish language dominance and/or language practice in the interviewee with his/her own family; it may be indirect if, as is likely, the target child has interaction him- or herself with some of the same family members and friends as the interviewee had at the earlier generation.

Finally, similar to what was found in relation to the immediate family members, the most striking correlations are the high correspondences between the language used by friends and teachers to the interviewee as a child and the interviewee's language used back to them, $r's \geq .943$, $p's <.000$. This again underlines the fact that children invariably respond to interlocutors in their language 'constellation' in the language that is used in speech to them.

IMPLICATIONS

These data highlight further the importance of a 'constellation' of Welsh speakers for the use and abilities in Welsh. The use of Welsh with not only immediate family members but also extended family members, teachers, and friends, and also in activities involving the Welsh language correlates highly with the interviewee's ability in Welsh. The interviewee's parents and siblings formed the centre of that constellation, but speaking the same language with those outside the immediate family helped to solidify and expand that constellation.

The most striking result is that a person/child speaks to an interlocutor in the language that that interlocutor uses in speech to them.

POLICY RECOMMENDATIONS

PR 9. Language use by a child is determined by language use by others in speech to the child. Thus, although it is obvious, it is worth noting that the greatest encouragement for speaking a language is an interlocutor speaking that language to the child.

PR 10. Furthermore, the greater the 'constellation' of speakers of the given language, the greater the language abilities will be in that language. The policy implications for Welsh are that the more varied and extended the activities and experiences with Welsh speakers, the more sound will be the Welsh abilities of the child in the end.

(3) CURRENT LANGUAGE ABILITIES AND USE BY PARENTS

The parents' current abilities and use of language were explored through questions 19-22, 46 and 47, and 34-45. Responses will be broken down into those relating to (A) current abilities, (B) levels of confidence, and (C) current use.

(A) Language(s) parents currently speak, understand, read, and write

Correlations between parents' current abilities in Welsh and English with factors already examined, including language interactions in their homes as children, and with their speech to their children and the languages their children speak, are shown in Table 4.8.

As might be expected, parents' current abilities with Welsh correlate highly with the languages of interaction with immediate and extended family members as well as with friends and teachers when they were children. This is true for all their skills in Welsh--speaking, understanding, reading, and writing, $.314 < r's <.554$, $p's <.000$. Similarly, parents' current abilities in English correlate negatively with language of interaction with most of these same family members, friends, and teachers. (This means that a current high level of ability in English corresponds to a lower level of Welsh interaction with those individuals.) However, these correlations on the whole are at lower levels than with Welsh: $-.116 > r's > -.366$, $p's <.048$.

It is of note that, in relation to parents' current abilities in speaking Welsh and English, the highest correlational values for both Welsh and English appear to lie in the language(s) of spoken interaction with friends when the parents were children-- for Welsh, $r's = .554$, $p's <.000$, for English, $r = -.364$, $-.366$, $p's <.000$. (Note, however, that they are also high between the parent's abilities and the language of interaction with the interviewee's mother, father, and siblings: for Welsh: $.474 < r's < .542$, for English: $-.323 < r's < -.262$, $p's <.000$.) This finding suggests that, while home language patterns of the parent as a child play a major role in determining language abilities and patterns of language use as an adult, the role of same-age peers should not be underestimated.

It is possible that the role of language interaction with friends can serve a number of possible functions: it might bear a secondary function of consolidating (or weakening) the strength of the home language, a more direct function of raising (or decreasing) the perceived value of the home language in the eyes of the

growing child, or an even more direct function of providing access to a language that is minimally available in the home. To explore these possibilities and the general effect of language with friends further, we examined more closely the relationship between the language(s) spoken to friends as a child with current ability to speak Welsh and English.

The interaction of these two, plotted for each home language group, are shown in Figures 4.10 and 4.11, for Welsh and English, respectively. In Figure 4.10, the most telling data are those for the W-W, the BIL, and the E-E groups, since we know that the home languages for the interviewee in these three cases were consistently Welsh, both Welsh and English, and consistently English, respectively. (In the W-E and E-W groups, which language was spoken in the interviewee's original home depends on whether the mother or father was interviewed.) In the cases of the W-W and E-E groups, the data show a striking result--fully 25% of W-W parents who spoke only English or mostly English to friends rate their own abilities at spoken Welsh at level '2', just higher than 'Only know some words and expressions'. In the E-E group, 33.3% of parents who spoke only or mostly Welsh to friends judge their spoken Welsh to be at level '5' the maximum level, 'Can carry out extended conversations', and 50% of those who spoke both Welsh and English to friends judge their spoken Welsh to be at the same maximum level.

These data reveal that, in the case of the minority language, the language of a child's peers can serve, on the one hand, (a) to 'depress' the abilities attainable on the basis of the minority language in the home and, conversely, (b) to make available--and attainable--the minority language when this is not spoken in the home. These effects are underlined with the data from the BIL group: Fully 94.8% of those in this group who spoke only Welsh or mostly Welsh to their friends judge their Welsh to be at level '4' or '5'; in contrast, only 50.0% of those who spoke only English or mostly English to their friends judge their Welsh to be at these same levels.

The patterns for English, shown in Figure 4.11, appear quite different. In every group, at least 72.5% of the parents, regardless of home language, and regardless of the language they spoke to their friends, judge their English to be at level '4' or '5'. This is true even for those parents who grew up in W-W families and who spoke only Welsh or mostly Welsh to their friends. This indicates that for the majority language (at least in the Wales context), the child is going to achieve competence regardless of the home language situation and regardless of the language s/he speaks to friends.

These results highlight the importance of the friends' language of interaction on children's final attainment of competence in the language. (They also speak to the misguided popular conception that the 'one parent-one language' rule is the best one for raising bilingual children. As the major results of this study also

have implications for that position, we will return to a discussion of this in the final Discussion section.)

One further important finding of these data is the proportion of children who speak only or mostly English with their friends. Except in the cases of W-W and W-E families, in every other type of home language pattern, 50% or more of the parents report that they spoke only or mostly English with their friends as children. Given the importance of the language of interaction with friends, this result has implications for language policies relating to the promotion of interaction of children with peers who speak Welsh with them.

As also might be expected, the parents' abilities in Welsh also correlate with the language they speak to their child and in the language that the child speaks. (Abilities in English appear to play a more minor role here.) However, it should be noted that the correlations here are of a much lower order than we observed above, in relation to the language background of participants (compare, e.g., values in Table 4.5).

One effect not anticipated is that parents' language abilities in Welsh appear to be related to the age group of the target child, with younger children being associated with higher Welsh language abilities of their parents, $-.135 > r > -.165$, $p's <.019$. The means for the parents of younger children are 4.17 (out of a maximum of 5) for speaking Welsh and 4.36 for understanding Welsh, while for the parents of the older children they are 3.80 and 4.03. The percent of parents falling into the '4' and '5' category for speaking Welsh is 72.9% in the group with younger children, and 59% in the group with older children. This difference in abilities appears directly related to the fact that there were more parents from Welsh-only origin homes in the former group (67.4%) than in the latter group (61.5%). Since age group of the child does not correlate in any other significant way with the data, especially in relation to language interaction between the parent and the child, this result is interpreted as an artificial artefact of the results and will not be explored further.

The other effects notable in Table 4.8 are the high correlations across the abilities in each of the participant's languages (see bottom right corner of Table 4.8). Thus, correlations across the four skills in Welsh range from $r = .729$ to $r = .859$, $p's <.000$, and across the four skills in English from $r = .502$ to $r = .672$, $p's <.000$. Correlations across the two languages are generally non-significant for the spoken language. However, there are correlations across languages for the other skills, with correlations between the abilities to read and understand English and the abilities to read and understand Welsh, $r's \geq .142$, $p's <.014$, and between the ability to understand English with abilities in reading and writing Welsh, $r's \geq .128$, $p's <.027$.

IMPLICATIONS

These results highlight the importance of friends in the establishment of language patterns of a child--in this case, in the language abilities of these parents in relation to the language(s) of interaction with their friends when they were children. This suggests that friends should be rated as very central in the language 'constellation' of the individual and in the promotion of a minority language: For the minority language, as noted above, the language of interaction of friends can either 'depress' the abilities in the minority language attainable on the basis of the use of the minority language in the home or make available a minority language that is not spoken in the child's home.

With regard to the majority language, the language patterns with friends are less influential. In the context of Wales, regardless of the home language patterns of the child, he or she will attain competence in the majority language, English.

These results also suggest some differences between the carry-over of skills from one language to the other. The data suggest minimal carry-over in the speaking abilities from one language to another. However, they support possible carry-over effects for literacy abilities in the two languages. (Similar effects have been observed for Spanish and English abilities of bilinguals in the Miami context, Oller & Eilers, 2002.)

(B) Confidence in speaking Welsh and English

Correlations between participants' levels of confidence in Welsh and English are shown in Table 4.9. As expected, there are in general very high correlations between the participants' confidence in each language and their report of their current abilities to speak, understand, read, and write that language, Welsh: $.618 < r's < .773$, $p's < .000$; English: $.335 < r's < .536$, $p's < .000$. There are also correlations between a speaker's confidence in formal and informal Welsh, $r = .797$, $p < .000$, and their confidence in formal and informal English, $r = .743$, $p < .000$. There are also significant correlations between the interviewee's confidence in Welsh and English and the extent to which they have lived in Welsh-speaking communities: Welsh: $r's = .188$, $.185$, $p's < .001$, English: $r's = -.264$, $-.340$, $p's < .000$.

These correlations for all interviewees also show correlations between the interviewee's level of confidence in Welsh and English and the speech of the mother to the child and of the father to the child, Welsh: $.369 < r's < .471$, $p's < .000$; English: $-.354 < r's < -.214$, $p's < .000$. However, these data are somewhat obscure, in that the interviewee was either the mother or the father--so s/he was reporting only on his/her own confidence, but then on both parents' speech to the child. To explore the effect of confidence further, we took a closer examination of

responses to question 46 B, regarding confidence in informal Welsh, by examining responses of mother interviewees and father interviewees separately.

On question 46 B, mother interviewees responded at a mean of 4.04 (on a scale of 1 to 5, with 5 being 'very confident') and father interviewees at a mean of 4.12. The higher level of confidence by fathers may be directly related to their higher command of Welsh, noted above in relation to Figure 4.8. The patterns of confidence for question 46 B, broken down by interviewee and parental category, are shown in Figure 4.12.

Correlations for mother interviewees only are shown in Table 4.10 and for father interviewees only are shown in Table 4.11. Both show high correlations between confidence in Welsh and the language spoken to the child: mothers: $r's = .612, .635$, fathers: $r's = .512, .461$, $p's <.000$. But in both cases, confidence also correlated highly with Adult Category: mothers: $r's = .467, .457$, fathers: $r's = .368, .373$, $p's <.000$). The patterns of confidence by adult category and language spoken to the child are shown in Figures 4.13 and 4.14. While one can observe a general pattern in Figure 4.12 in which adult category (i.e., language home origin of the interviewee) affects confidence in speaking Welsh, the patterns in Figures 4.13 and 4.14 show that confidence and adult category interact in determining what language(s) the parent speaks to the child. Thus, on the one extreme lie the W-W parents. Regardless of confidence level, W-W parents tend to speak Welsh to their children. On the other extreme, parents who grew up in E-E homes are likely to speak mostly English to their children even if their confidence levels in Welsh are high (level 4 or 5). These patterns suggest that perhaps speakers' judgments of 'confidence' in their abilities in a language are modified according to whether they are first or second language learners of the language. A second language learner, for example, may acknowledge that his/her knowledge of the language does not measure up to that of a first-language speaker, but at the same time feel confident that within the capacity of a second language learner, his/her abilities in the language are quite good. This judgment may be somewhat independent of whether that confidence is at such a level that the parent feels comfortable speaking that language to his/her own children.

IMPLICATIONS

The implications of these data are that, while confidence levels in Welsh are related to (reported!) abilities to speak, understand, read, and write the language, and to the adult category, the exact nature of what that confidence represents is somewhat unclear. First-language and second-language speakers may use distinct metrics in evaluating their own 'confidence' in a language. And, most importantly for the present study, parents' adult category (related to language spoken in the home when they were children) is a much stronger indicator of the language(s) they will speak to their own children than their reported confidence in the language.

(C) Current language use by parents

Correlations relating to language choice of television and radio programmes and the like are shown in Table 4.12. It can be seen that there are consistent significant correlations in the choice of Welsh-language programmes and materials and the parent's adult category and ability to speak Welsh and English. Most telling, perhaps, are the correlations related to the choice of language in reading and filling out forms (questions 44 A and B) and on a telephone help line (44 C), since these cases involve a free choice between the two languages in cases when both are equally available (whereas this is not the case with choice of television programmes and reading materials, for example). The last of these, telephone help lines, is particularly telling, as it involves the oral language, not literacy skills. It can be seen that responses to question 44 C show high correlations with the adult category ($r = .475, p <.000$), the language spoken by the mother to the child ($r = .527, p <.000$), and the language spoken by the father to the child ($r = .408, p <.000$). It is also positively correlated with the interviewee's ability to speak Welsh, $r = .380, p <.000$, and negatively with his/her ability to speak English, $r = -.435, p <.000$. These correlations strongly suggest that language choices in the speech of the mother and father to the child are related to ease and comfort of use of the Welsh language.

It is worth commenting on the choice of Welsh versus English television viewing. In response to question 34, the correlations with adult category and language spoken by mother and father to the child are much lower than for telephone help lines ($.179 < r's < .272, p <.000$), as is the correlation with the adult's knowledge of Welsh, $r = .171, p <.003$. The interviewees' comments on the reasons for their choices make it apparent why these correlations are lower: adults choose what they watch on television primarily because of the programmes and the quality of the programmes. Interviewees' scorable responses (N=274) could be grouped into two major categories. (An additional 22 responses fell into unclassifiable (N=18)--e.g., 'habit'--or did not watch TV (N=4).) Program-based choices constituted 70.8% of the reasons given, while language-based choices were expressed in 29.2% of the responses. The program-based reasons could be broken down further into (a) range of choice (11.7%), (b) programmes on, including particular programmes (34.3%), (c) quality of programming (23%), and (d) other, such as scheduling (1.8%). In relation to quality, while there were a few respondents who favoured the quality of Welsh programmes, most commented on the poor quality of programmes on S4C. One interviewee commented that S4C was 'hopeless', another that Welsh TV is 'pathetic', using the same actors in everything.

With regard to choices based on language, almost all of these reasons centred (a) on the interviewee's own ease of understanding (including one Welsh speaker who complained that everything on S4C was in Welsh of South Wales, while s/he spoke that of North Wales) (15.7%), (b) on the language abilities of someone

else in the home (2.6%), and (c) on L2 speakers' desires to practice or be exposed to Welsh (6.9%). The remaining expressed a desire to have access to programmes in both languages (2.6%) or expressed strong feelings about the Welsh language (1.5%).

These results make it clear that very few adults choose television programmes on the basis of the language in which the programme is delivered. Instead, television viewing is chosen on the basis of the interest or quality of the programme and the range of choice, combined with ease of understanding and processing. These findings have clear implications that the retention of viewers for Welsh television depends crucially on the development and promotion of a wide range of quality programmes.

IMPLICATIONS

Parents' current use of the Welsh and English languages, when the opportunity freely affords the use of either, seems to relate to the levels of comfort and ability in the language. Thus, when both languages are equally available, the choice of language correlates highly with adult category, language abilities, and languages used by the mother and father in speech to the child.

When a given activity does not offer equal choices in the two languages, however, as in the case of television viewing, adults generally appear to make choices on the basis of non-language criteria. They choose to watch programmes that are enjoyable and that offer a wide range of options. They rarely choose to watch a channel or programme solely on the basis of the language that is used as the medium of delivery (unless they or a house member cannot understand the alternative choices or unless they are a learner wishing to practice in the language). The implications for language planning are straightforward: If the language 'constellation' of a speaker is to go beyond immediate family members and immediate community, programmes need to be developed that are of high quality and that consist of a range of offerings.

POLICY RECOMMENDATIONS

PR 11. Central to the language constellation of a growing child is the language of interaction with friends. For the promotion of the minority language, in this case Welsh, programmes should focus on promoting friendships and interactions among children who speak Welsh with one another.

PR 12. With regard to a bilingual speaker's two languages, there appear to be some carry-over effects between literacy skills. There is less carry-over between the bilingual's spoken skills in the two

languages. The implication is that programmes developed to foster and promote the use of Welsh should pay particular attention to spoken interaction, more than interactions based on literacy.

PR 13. There is a clear need for improved quality of television and other media offerings in Welsh. Speakers choose what they watch on the basis of quality and offerings, not on the basis of language. Poor offerings in the Welsh language discourage the viewing of Welsh television, thus cutting off this avenue for further exposure and consolidation of the language in the linguistic constellation of the Welsh child (or adult). Efforts should be made to achieve excellence in programming so that viewers will increasingly choose the Welsh-medium channels.

(4) NON-LANGUAGE BACKGROUND OF PARTICIPANTS

To explore whether participants' backgrounds not related to language influence their language use to their children or the language(s) their children learn to speak, we examined responses having to do with non-language aspects of their backgrounds, such as participants' ages, their professions, and their educational background.

To make correlational tests easier, parents' ages were divided into 10-year groups, from 21 to 30, 31 to 40, 41 to 50, and 51 to 61 (there was only one father who was 61, so he was included in this last group). Parents' professions were also classified into three general classes--'high' (= '1'), when the profession required a degree and involved non-manual labour, 'low' (= '3') when the profession did not require a degree and involved manual labour, and 'mid' (= '2') for anything between these two. Their educational backgrounds were quantified according to their degree type (see Appendix 4.2).

Correlations obtained are shown in Table 4.13. Some of the significant correlations are expected -- e.g., between the professional level of each parent and their education (these are negative because professions had '1' for high, and education had '1' for low), between the interviewee's and their partner's professions, between the parents' professional level and whether they own their home (similarly, these are negative correlations), and between the parents' age groups and the target child's age group (older children have older parents).

There are few correlations between these non-language variables and either the language the child speaks or the language(s) the mother and father use to speak to the child. The two exceptions to this are that the language the mother speaks to the target child correlates with the father's age and with the interviewee's education.

The correlation between the father's age and the speech of the mother to the child is shown in Figure 4.15. It can be seen that the younger the father, the less

likely the mother is to speak Welsh to the child. Careful analysis revealed no obvious correlation between the father's age and some other third variable (e.g., more extended family members on the mother's side who spoke Welsh) that might explain the greater use by the mother of Welsh in speech to children when the father was older. Since the father's age group also correlates significantly with the child's age, the mother's speech to the child by the father's age is broken down for child age in Figure 4.16. This Figure makes clear that the most dramatic differences in the mother's speech linked to the father's age is in the younger group of children. When the data from just the younger age group is considered, the correlation between the father's age and the mother's language to the child is greater, $r = .268$, $p < .004$. But the reasons for this are related to the distinct distributions of adult categories by fathers' ages. The distribution of the participants with younger children by the father's age into the major adult categories (W-W, W-E, and so forth) is shown in Figure 4.17. It can be seen that at the lower father ages, there is a greater preponderance of parents coming from the family categories where English may be more dominant than there is at the older ages. It is likely that the effect observed showing that mothers speak less Welsh when the fathers are younger is due to this artefact of the data. That is, younger fathers have younger children, and the families with young children and the youngest fathers in this set of participants tended to have parental language backgrounds favouring English more than those with older fathers. This result, then, can be seen as an artificial artefact of this particular data set and, therefore, not a major finding concerning language transmission practices.

The speech of the mother to the child in relation to the education of the mother is shown to the left in Figure 4.18. (Language spoken by fathers by education is shown in Figure 4.19, for purposes of comparison.) Since the correlation observed involves the education of the 'interviewee', correlational tests examined the speech of the mother to the child in relation to the mother's education when the mother was the interviewee and in relation to the mother's education when the father was the interviewee. The only correlation that proved significant was between the mother's speech to the child and the mother's education when the father was interviewed, $r = .203$, $p < .032$. The patterns observed are shown to the right in Figure 4.18. This shows a trend for those mothers with higher educational levels to speak more Welsh to their children. However, without further data and analysis, it is not clear why this correlation should hold, and hold only for this sub-group, nor whether it would hold across a wider population. At this point, this result should be taken as one of the least strong results of the study and only suggestive of one possible contributory factor to mothers' speech to their children.

IMPLICATIONS

Non-language factors such as parental age, profession, and education appear on the whole to play no significant role in language transmission

practices in these Welsh participants. The minor results relating to the father's age and the mother's speech to the child and to the mother's education and speech to the child are either explainable on the basis of accidental properties of the data set or are too tenuous to use as reliable evidence without further exploration.

POLICY RECOMMENDATION

No policy recommendations are indicated on the basis of parental age, profession, or education.

(5) GEOGRAPHICAL LOCATION

The 14 major geographical areas of the study were assigned codes, ranging from '1' at the extreme northern end to '14' at the extreme southern end, as in Table 4.14. The additional geographical areas outside those of greatest interest to the Welsh Language Board were assigned a code of '0'. In addition to entering these codes into the database, we entered census data information obtainable for the 14 geographical areas on the population, the raw numbers of speakers of Welsh, and the percentage of speakers who speak Welsh. These were also entered for the additional geographical areas when these were available. See Table 4.14.

Correlations involving these data and the child's language, the child's age group, the adult category, and the language spoken by the mother and father to the child are shown in Table 4.15. Table 4.15 A shows the data for all areas, Table 4.15 B for the WLB areas only. As might be expected, the Tables show correlations between the areas, the population sizes, the number of Welsh speakers, the percent of Welsh speakers, and the geographical areas (North, Mid, South). Since the WLB area codes assigned the lower numbers to the northern areas and the higher numbers to the southern areas, these correlations show, in general, that the northern areas examined tended to be bigger in population and have greater numbers and percentages of Welsh speakers.

More interesting are the correlations between the percentage of Welsh speakers and the language(s) that the child speaks, r 's = .276 (all areas), .260 (WLB areas), p 's <.001. Figure 4.20 breaks down the profiles for the children's languages according to the percentage speakers of Welsh, in 20% increments. Although the correlations are not as strong as some of the others we have observed, there is a general pattern whereby the child is more likely to speak Welsh (alone or alongside English) the greater the percentage of speakers of Welsh in the community. (This tendency does not hold, however, for the non-WLB areas when these are isolated from the WLB areas--see Figure 4.20.)

However, the percentage of speakers in an area also correlates with the adult categories, r 's = .318 (all areas), .219 (WLB areas), p 's <.006. It is possible, then, that the correlation between the percentage of speakers in an area and the language(s) the child speaks is a by-product of a greater number of families in

the Welsh-speaking categories (i.e., W-W, W-E, E-W) in the areas with higher Welsh-speaking populations. To explore this, the percentage of families of each type for each percentage level was calculated. These data are shown in Figure 4.21. These data make it clear that in the case of either all areas or the WLB areas, the greater the Welsh-speaking population, the greater the proportion of W-W, W-E, E-W families, those that are more likely to have Welsh-speaking children (see Figures 4.1 and 4.2). (For the non-WLB areas alone, however, the areas with between 40% and 60% Welsh speakers have slightly more (80%) parents from these three adult categories than the areas with 60% or more speakers of Welsh (with 75% from the W-W, W-E, and E-W categories).)

A similar type of confound appears to account for the finding reflected in Table 4.15 that there is a correlation between the percentage of Welsh speakers in an area and the language(s) spoken by the father to the child. The language(s) spoken by fathers to children, by percentage Welsh speakers, is shown in Figure 4.22. Again, the greater the proportion of Welsh speakers, the greater the likelihood that the father will speak Welsh to his child. However, Figure 4.21 makes it clear that a greater proportion of Welsh speakers generally corresponds to a greater proportion of W-W and E-W families, those in which the father is most likely to speak Welsh to his child: approximately 60% of the families in areas with 40% or more of the population speaking Welsh are of the W-W and E-W types, in contrast to approximately 25% of the families in areas in which less than 40% of the population speaks Welsh. Thus, the correlations showing a relationship between the percentage of Welsh speakers in the community and both the child's language and the father's language to the child are confounded with the fact that the majority of the family types in those communities are of the adult category types that use Welsh in speech to their children.

IMPLICATIONS

These data show no strong effects for location or percentage or number of Welsh speakers on the major variables of the study. Effects observed relating to population of Welsh speakers are confounded with the distribution of adult categories across these geographical areas: Areas with a greater percentage of Welsh speakers are areas that have a greater proportion of families of the W-W, W-E, and E-W types.

It is possible (probable?), of course, that a study focusing on a wider range of geographical types--e.g., including areas where 10% or less of the population speak Welsh or including more areas in which the medium of education is English--may reveal more significant effects of these geographical characteristics. It is predicted, however, that even in such areas, the language spoken by the parents to the child may well be dictated by their adult category; however, the language of the child may be more drastically affected by the linguistic repertoire of the community than has been observed here.

POLICY RECOMMENDATIONS

No policy recommendations are indicated on the basis of geographical location, population, or density of Welsh speakers.

(6) PARENTAL ATTITUDES TOWARDS WELSH AND ENGLISH

(A) General attitudes

Parents' general attitudes towards Welsh and English were explored through questions 23 to 26, 30 to 33, and 48. Correlations between these and the major factors of the study are shown in Table 4.16. The Table shows significant correlations between the interviewee's attitudes across questions involving Welsh and across questions involving English. Thus, for example, responses to question 30, regarding the prestige of Welsh, correlate highly with responses to the sub-questions of question 33, regarding the presence of Welsh in the media, politics, and so forth, and the sub-questions of question 33 correlate with one another.

Furthermore, responses concerning the importance of Welsh in relation to the child in general and in relation to the child's job prospects correlate positively with responses concerning the importance of English in relation to the child in general and in relation to the child's job prospects. That is, the parent's positive assessment of the importance of Welsh corresponds to a similarly positive assessment of the importance of English: High regard for Welsh is not at the expense of high regard for English, nor vice-versa.

Perhaps more relevant to the study at hand are correlations holding between the interviewee's general attitude towards Welsh for the child (question 23) and the child's language, the language(s) spoken by the mother and father to the child, and the adult category, and between the interviewee's assessment of whether Welsh is essential for being a full part of the community (question 48) and the languages of the child, those spoken by the mother and father to the child, and the adult category.

Question 23 asked:

Q 23. What is your general view about your child(ren) being able to speak, read, and write Welsh?

Parents' response patterns by adult category are shown in Figure 4.23. As can be seen, the more Welsh-dominant the home languages of the parents as children, the more likely they are to respond 'very important' to question 23. The correlations between parents' responses to this question and the language(s) they speak to their children are shown in Figures 4.24 and 4.25, separated for mother interviewees and father interviewees. Figures 4.26 and 4.27 show the interactions of the adult category and parental attitudes with the language(s) they speak to the target child.

To explore these interactions further, ANOVAs were conducted for the mother interviewees and the father interviewees with adult category and attitude from question 23 as the independent variables and the language spoken by the interviewee to the child as the dependent variable.

For mother interviewees, there is a significant main effect for adult category, $F(4,171) = 10.86, p <.000$, but not for attitude ($F(3,171) = 2.75, p <.104$), nor for the interaction of these two ($F(4,171) = .463, p <.763$). This suggests that for the mothers, adult category is the determining factor, not general attitude toward the child and Welsh. Post-hoc analyses reveal that the groups fall into three distinguishable patterns of input to the child: W-W, W-E > E-W, BIL > E-E, all Scheffe's p 's $<.05$.

For father interviewees, there are significant main effects for both adult category, $F(4,104) = 2.80, p <.03$, and attitude, $F(3,104) = 6.31, p <.001$. Follow-up analyses reveal that W-W fathers use more Welsh to children than W-E, BIL, and E-E fathers, and E-W fathers use more Welsh than W-E and E-E fathers. For attitude, the only significant difference is between those responding 'Neutral' to question 23 and those responding 'Very Important', $t = -4.25, p <.02$. This result should be taken with some caution, however, since there were only N=4 fathers responding 'Neutral', and these all fell into the BIL and E-E categories (see Figure 4.27).

Similar ANOVAs were conducted concerning question 48:

Q 48: On a scale of 1 to 5 (5 highest) how essential do you think Welsh is for being a full part of your community?

General responses to this question were positive (80.8% responding '4' or '5' (with a range of 70.7% to 93.4% by adult category)). Analyses for the father interviewees reveal no significant effect of responses to this question ($F(5,93) = 1.76, p <.13$). But for mother interviewees, the analyses show significant main effects of adult category ($F(4,163) = 10.72, p <.000$) and of attitude ($F(4,163) = 3.28, p <.013$), and of adult category X attitude interaction ($F(11, 163) = 1.90, p <.05$). Response patterns are shown in Figure 4.28. Follow-up t tests for the individual pairs of responses on question 48 fail to show significant differences at any level. Thus, the most significant factor again in determining mothers' language choice in speech to children is the adult category of the language of the home when the mother was growing up.

One last set of correlations that are less directly relevant to this study but are worth commenting on are several negative correlations between the adult category and attitudes towards Welsh—for questions 30, 32, 33d, and 33e. These negative correlations are largely due to the W-W interviewees expressing more pessimism about the future of Welsh than the other groups. For example, questions 30 and 32 asked the following:

Q 30: On a scale of 1 to 5 (with 5 highest), how much prestige do you feel the Welsh language has in Wales?

Q 32: Which of the following statements best expresses your opinion on the likely situation of Welsh and English in 50 years for all of Wales:

English will replace Welsh	Welsh will be used less than it is now	Welsh will be used the same as it is now	Welsh will be used more than it is now	Welsh will replace English
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Responses to these questions are shown by adult category in Figures 4.29 and 4.30. For both questions, only about half as many W-W interviewees as interviewees in any other group expressed positive assessments. (But see somewhat different results in relation to the Written Questionnaires, Chapter 5.)

IMPLICATIONS

There is some indication in these data that parents' attitudes regarding the importance of Welsh for their child and for life in the community correlate with the language(s) they speak to their child. However, they also correlate with the adult category of the parents, so it is difficult to separate the influence of attitude versus adult category on parents' language patterns. Careful analyses suggest that the latter plays the significant role, although this may be supported by attitudes towards the language.

However, it is instructive to see that parents from every category generally thought of Welsh as very important or important for their child (see Figure 4.23). This is true for both mothers and fathers (see Figures 4.26 and 4.27). Similarly, mothers of every category (71.1% to 97.8%) generally thought that Welsh was very essential or essential for life in the community (see Figure 4.28). This means that parents of all categories generally appreciate the importance of Welsh for life in Wales.

One other finding is that parents' positive assessment of the importance of Welsh for their child's future prospects does not mean a negative assessment of the importance of English. Parents on the whole assessed both languages as being of importance for their children's futures.

Finally, it was parents with the most Welsh background--those from the W-W group--who expressed the most pessimism about the future of the Welsh language (Figures 4.29 and 4.30). The source of this pessimism is unclear--e.g., it may be related to the fact that this group would be the group to suffer the most if the Welsh language died out because of the encroachment of English. However, it may play some covert role in this group's maintenance of Welsh within their families and the fact that they

have the highest proportion of Welsh-only-speaking children at both the younger (67%) and older (36%) age groups.

(B) Attitudes in relation to their child's upbringing and how decisions concerning language were made

Questions 16E, 27-29, 49, and 50-52 probed interviewees' attitudes towards Welsh and English in relation to this particular child and what influenced the language(s) they speak to their children. Correlations are shown in Table 4.17.

Some of these correlations are predictable on the basis of the categories themselves--e.g., parents who made a conscious decision regarding language (Q27A) also discussed it frequently with their partners (Q27B); whether the interviewee feels Welsh is important for feeling close to the child (Q 49C) correlates with whether Welsh is bound up with identity (Q 49D), and so forth.

What is of greatest interest here, however, is whether parental attitudes influence in any significant way the language spoken by the child or the language(s) spoken by the parents to the child. Interestingly, none of the response patterns for these questions show any correlation with the language that the child actually speaks. Similarly, there are few that correlate significantly with the language(s) spoken by the mother and father to the child.

Nevertheless, there are some interesting negative correlations between parental responses concerning decision making for language, and adult category, mother's speech to the child, and father's speech to the child.

First of all, it is worthy of note that fully 69% of the respondents said in response to Question 27A that they just speak 'naturally' whatever language they speak to the child. Furthermore, 59% say that the 'never' discussed the issue with their partner, and another 10% only once or twice.

With regard to whether they changed their decision at any point concerning the language(s) they would speak to their child, Question 28, fully 94.5% of interviewees said that they did not. Figure 4.31 breaks down responses to this question by adult category. As can be seen, in the W-W group, not a single parent changed their decision, while in the other groups, 5% to 8.8% changed their minds.

Figure 4.32 shows whether anyone was influential in their choice of language for their child, and how influential they were. In the majority of cases, there was not a particular individual who influenced parents' language choice.

Figure 4.33 shows the point at which influence by another person had an effect on the interviewee's choice of language. It is clear that for all groups, if someone was influential at all, their influence generally came before the child was born, not after.

To explore who was influential in parents' choice of language, a tabulation of the people mentioned as having influence at a '4' or '5' level in response to this question was made. This is shown in Table 4.18. It can be seen that fully 86% of those mentioned were members of the family, usually the partner of the interviewee (45%) or a grandparent of the child (32%). More rarely, someone outside the family was mentioned, with the most frequently mentioned being a teacher (7%). These results suggest that if the parent is influenced at all by someone else in deciding what language to use in speech to the child, it is most often their partner or a parent, or someone with whom they are intimately related.

It is worth mentioning in this regard the lack of significant correlations between questions 50A and 50B, regarding recommendations from health workers, and the language(s) used by the parents in speech to their child. While 50A and 50B correlate with each other, indicating that when health workers did speak with parents, they largely recommended that parents bring up their child bilingually, neither fact, that a health worker either discussed the matter with a parent or recommended bringing up a child bilingually, seems to relate to the parents' language to the child.

Figure 4.34 shows the patterns of response for question 49b, asking how important the child's future was as a factor in influencing language choice. The negative correlation observed is clearly due primarily to the fact that this is a minor consideration for parents from the W-W category. From what we have seen above, it is probable that parents from this category are less likely to even question what language they will use with their children, so external factors such as this are unlikely to sway their choice in any significant way.

Similar patterns explain the negative correlations between the languages spoken by the mother and father and the decision-making questions. The more the parent came from a one-language type background, the less likely it is that anyone was influential in their decisions concerning the language to speak to the child. Thus, for example, the language spoken by mother interviewees is shown in Figure 4.35 in relation to their answers concerning whether anyone was influential in their choice of language in speaking to their child. It is clear that mothers speaking only Welsh or only English to their children were least likely to even consider this as an issue--hence, the high proportion of 'NA' responses. Again, it is other factors that dictate the choice of language spoken to the child.

Similarly, in fathers' speech to children, fathers who consistently speak Welsh to their children are the least likely to have changed their minds on what language to speak to the child. See Figure 4.36.

Two final findings of these correlations are the lack of significant correlations between parents' answers to questions 51 and 52, having to do with potential advantage or disadvantage with being bilingual and with the ease of learning two languages, and the major factors in this study. This is because parents in all groups agree that it is advantageous to be bilingual and that it is easy for children

to learn two languages at the same time. Response patterns by adult categories are shown in Figures 4.37 and 4.38 for these two questions.

IMPLICATIONS

These data show a number of effects:

- 1. Parents do not generally change their minds concerning the language(s) they will use to speak to their children.**
- 2. In most cases, parents do not make conscious decisions regarding the language they will speak to their child; instead, they do what comes 'naturally'.**
- 3. When parents do make decisions, they generally make their own decisions regarding language to speak to their child. This is especially true for parents who come from the more 'monolingual' type backgrounds--especially parents from the W-W category. It is as if these parents do not 'need' to make a choice--since the choice is patently obvious, so they are not influenced by others, nor by considerations such as their child's future.**
- 4. When parents are influenced by another person in making a choice about language to speak to their child, that other person is usually another family member.**
- 5. Advice of health workers, when given, was largely positive for bringing up a child bilingually. This advice, however, showed no significant correlation with the language spoken to or by the child.**

POLICY RECOMMENDATIONS

PR 14. Most parents do not make conscious decisions about what language to speak to their child. This means that efforts at affecting conscious decisions may be doomed to failure. Instead, efforts should focus on more indirect means of influencing what feels appropriate to parents for interaction with their children. Such indirect means could take the form, for example, of providing models of Welsh-child-directed speech for new parents and of making readily available contexts in which Welsh language parent-baby interaction is the dominant medium (e.g., in a baby exercise class).

PR 15. The parents who may need to consider on a more conscious level what language to speak to their child are those who have the option of speaking either or both languages--that is, (1) parents who come from the W-E, E-W, and BIL groups, since between the two parents there are two 'native' languages, and (2) parents from the E-E group who also speak Welsh, since they are bringing up their

children in Wales. Any helpful information regarding language choices should be targeted at these audiences.

PR 16. In such cases, parents are most influenced by someone close to them. Any advice that comes from an outside party should be 'filtered' through such family members. That is, any programmes developed or fostered by the Welsh Language Board should encourage discussion of the issues in the context of the whole family, not just the mother or father of the child. The mother and father will want to hear the positions of other family members whose opinions they trust and whose allegiances they do not question in making their decisions.

PR 17. Such discussions should take place early rather than late. The ideal would be to encourage such discussions with parents who desire such advice even before their child is born. Such advice could be made available through health workers. But we also recommend the consideration of the development of a 'Bilingual Parent Help Line', possibly in conjunction with the TWF Project. Parents who are uncertain about decisions regarding the use of one or both languages may need to speak with a knowledgeable professional--but one who they perceive as unbiased--concerning their particular situation. It is when particular circumstances make such a decision difficult that the availability of such advice may be especially helpful (see Chapter 9 on interesting cases).

Before moving on to considering the role of the language environment of the child, it is useful to examine whether attitudes towards Welsh and English vary by geographical area, even though it was concluded above that geographical area does not play a major influential role in the language of the child or the language spoken by the parents to the child. (Recall that any effects observed, e.g., with higher percentage of Welsh speakers, were confounded by correspondingly higher percentages of family types in which parents are likely to speak Welsh to their children.)

Tables 4.19 and 4.20 show correlations for geographical areas with the general attitudes of parents towards Welsh and with their attitudes towards their own child and language. It can be seen that the primary patterns observed show significant correlations involving the percentage of Welsh speakers in an area and involving the north/mid/south area in which the family lives.

With regard to the percentage of Welsh speakers in the area, the percentage of Welsh speakers in the community in which the interviewee lives generally correlates positively with positive assessment on the interviewee's part of the presence of Welsh in the community--in the government, in health care, in retail contexts, in cultural offerings. It is probable that these attitudes reflect actual practice--in communities with higher proportions of Welsh speakers, it is likely

that services are more available in the Welsh language. Those in areas with higher percentages of Welsh speakers also judged English to be of lower prestige in Wales than those in areas of lower percentages of Welsh speakers. But, similar to what was observed above in relation to the W-W parents, the greater the percentage of Welsh speakers in an area, the lower was their assessment of the future prospects of Welsh in relation to English (Q 32).

In relation to their own children, the greater the percentage of Welsh speakers in a community, the less likely were interviewees to feel that considerations such as their child's future, closeness with their child, and identification with the language were factors influencing their choice of language to use with their child. As we saw above in relation to the more monolingual background parents, it may be that a preponderance of Welsh in the community makes the decision of which language to speak to one's child a non-issue. Fully 59% of the interviewees living in communities with 60% or more speakers of Welsh responded that the future of their child was 'not applicable' in their choice of language for their child (compared with 26%, 23%, and 20% of interviewees in communities with 40-59%, 20-39%, and under 20% Welsh speakers, respectively). Finally, the greater the percentage of Welsh speakers in the community, the less likely parents were to cite language of instruction as a major factor in choosing a school for their child. Again, this effect may have to do with the ready availability of Welsh-instruction schools in areas with high percentages of Welsh speakers and lower availability in areas with lower percentages.

With regard to the location of the area in the north, mid, or south Wales, those in the south were more likely to judge English to have prestige in Wales, and less likely to feel that Welsh was very well represented in the government or in the health service. In relation to their own child, those in the south were more likely to feel that considerations such as their child's future, closeness with their child, and identity with the language influenced their choice of language in speech to their children. Those in the south were also more likely to consider language used in the school as a factor when choosing their child's school. As in the case of the similar effect relating to the percentage of Welsh speakers in the community, this effect may have to do with the greater availability of Welsh-language schools in the north than in the south.

While these effects are interesting, it should be remembered that the data above showed little major effect of geographical area on the ultimate issues of concern in this study--i.e., the language spoken by the child and the languages spoken by the parents to the child. However, these results indicate that the Welsh-speaking parent may have to interact differently with the community and make decisions regarding their child and his/her language depending on the relative presence of Welsh and English in that community.

(7) THE LANGUAGE ENVIRONMENT OF THE TARGET CHILD

Questions 10 to 18 probed the language environment of the target child. Correlations between the interviewee's answers to these questions and the major factors of the study are shown in Tables 4.21 and 4.22. Table 4.21 shows results relating to the child's immediate family, friends, and teachers, Table 4.22 the extended family and beyond.

As was the case with the interviewee in relation to his/her own family of origin, the highest correlations observed for the child are between the language spoken by the mother, father, siblings, and friends to the child and the language used in return by the child to speak to that person, all $r's > .93$, $p's <.000$. The correlations are also high for the languages spoken by teachers in and outside of class to the child and the languages used in return by the child to the teachers, $r's = .851, .838$, $p's <.000$.

Similarly, the correlations across the language of interaction between the child and immediate family members and friends are high, $.575 < r < .706$, $p's <.000$.

Correlations between the language spoken by teachers to the child and by the child back to the teacher are also high, $r's = .842, .862$, $p's <.000$. And these correlate highly with the language of interaction with immediate family members and friends, $.379 < r's < .562$, $p's <.000$.

We already know from the above analyses that the language that the parents speak to the child is highly correlated with their adult category, and Table 4.21 shows that the language the child uses back to the parents is also correlated with adult category, $r's = .528, .456$, $p's <.000$.

Similarly, the language(s) spoken by the child is highly correlated with the language(s) of interaction with immediate family members and friends, $.366 < r's < .476$, $p's <.000$. As we saw with the interviewees, the language of interaction with friends is among the highest of these correlations, and, thus, the role of the friends in establishing or supporting language patterns in the child should not be ignored.

Table 4.22 shows the wider language context of the child, including language interaction with grandparents and aunts and uncles. It can be seen that across the interaction with grandparents and at least the closest aunts/uncles, the language(s) of interaction are correlated significantly with the language(s) used in the immediate family and with friends, $.162 < r's < .575$, $p's <.011$.

One effect shown here that was not in evidence with the interviewees and their families of origin is that in the case of the children, the language of interaction with the grandparents and aunts and uncles correlates significantly with the frequency of visits, $.406 < r's < .862$, $p's <.000$. To explore this result, the patterns were explored for both grandparents and aunts and uncles. In all cases, the correlation seems to correspond to a generally lower frequency of visits to

grandparents and aunts and uncles who speak always English to the child than to those who speak some Welsh ('mostly English' through 'always Welsh'). As a representative example, the patterns for the grandparents are shown in Figure 4.39. While these findings may suggest aspects of family interaction in Welsh-dominant versus English-dominant families, they are more likely related to geographical distances between families in these Welsh communities and English-only-speaking relatives.

Finally, as might be expected, the language spoken by the child is significantly correlated with the language(s) spoken by the closest extended family members, although these correlations are much lower than for immediate family members, $.197 < r's < .368$, $p's < .001$.

IMPLICATIONS

These results concerning the language environment of the child and its influence on the language(s) the child speaks present findings parallel to those found concerning the language background of the parents: The adult category of the parents is important, as is the language 'constellation' of family members. Most importantly, the language that is used by a particular family member, teacher, or friend is the language that the child uses to speak back to that person.

As shown above in relation to their parents' language backgrounds, friends are also shown here to play a central role, alongside parents and siblings, in the language constellation surrounding the child.

POLICY RECOMMENDATIONS

PR 18. Programmes should be encouraged that increase the depth and breadth of the child's language experiences in Welsh. The greater the types and number of contexts in which Welsh is experienced, the more solid will be the ultimate attainment in Welsh.

SUMMARY OF FINDINGS

The most important findings of the above results can be summarized as follows:

1. The results obtained were on the whole the same whether we interviewed the mother or the father in the family. (The only exception to this is that when fathers were interviewed, they were more likely to report greater use of Welsh to their child than was reported for fathers' speech to children when mothers were interviewed. This is most likely related to self-selection by fathers for participating in the interviews.)

2. There are a number of factors that appear not to influence the language the child speaks or the language(s) spoken by the mother and father to the child. These include:
 - a. The gender of the child
 - b. The gender of the parent (except insofar as this impacts on adult category)
 - c. Parents' ages, professions, and educational levels
 - d. Geographical location (except insofar as percentage of Welsh speakers correlates with adult categories of parents: Areas with high populations of Welsh speakers are also areas with the greatest proportion of W-W, W-E, and E-W parents, those groups most likely to speak Welsh to their children).
 - e. Attitudes towards Welsh. In the context of Wales, at least as regards those who participated in this study, most parents express very positive attitudes towards the Welsh language and the value of Welsh for their child.
 - f. Attitudes towards English. Similarly, in this group, most parents expressed positive attitudes towards English.
 - g. Attitudes towards bilingualism. Similarly, most parents expressed positive attitudes towards being bilingual and felt that it was on the whole easy for children to become bilingual.
3. There are a number of factors that appear to be the most significant factors influencing the language the child speaks and the language(s) spoken by the mother and father to the child. These include:
 - a. First and foremost, the Adult Category of the parents--i.e., what language(s) were spoken in the parents' homes when they themselves were children. This appears by far to be the overridingly most significant factor within which all of the other findings should be viewed. This factor relates significantly both to the language(s) spoken by the child and the language(s) used by parents in speech to their children. In effect:

Children's language:

 - (1) Above all, children speak to an interlocutor in the language that that interlocutor uses in speech to the child. Within this, or perhaps because of it:

- (2) Children's language(s)--especially at the younger ages, under 4;6--are highly correlated with the adult categories, whereby on the one extreme, children with parents who both grew up in Welsh-only homes (i.e., the W-W category) are most likely to speak Welsh, and on the other extreme, children with parents who grew up in English-only homes are most likely to speak English only. Children of W-E and E-W parents (i.e., where one parent grew up in an only-Welsh home and one in an only-English home) fall between these two extremes. Children of parents who grew up in two-language homes (i.e., who belong to the BIL group) show effects at these younger ages relating to the origin-home-language of the BIL parent's partner. If the BIL partner's origin-home-language was only Welsh, the child is likely (80% or more) to speak Welsh; if the BIL partner's origin-home-language was only English or both Welsh and English, the child at these younger ages is approximately 50% likely to speak Welsh.
- (3) At the older ages, all children are likely to speak Welsh. In the W-W group, there are some children who may still only speak Welsh at this age; in all other groups, they are likely to speak Welsh alongside English. In the BIL group, there may still be a few children who speak only English--but only if the BIL partner's origin-home-language was only English or both Welsh and English.

Parents' Language to Children:

- (4) The language(s) spoken by parents to their children is also highly correlated with the language(s) of the home when they were children:
 - Parents who grew up in only-Welsh homes (i.e., either parent in a W-W family, the mother in a W-E family, the father in an E-W family) are likely to speak Welsh to their children.
 - Parents in families where both parents grew up in only-English homes (i.e., either parent in an E-E family) are likely to speak English to their children, although many of these parents speak Welsh to their children at least some of the time.
 - Parents who grew up in two-language homes (i.e., BIL parents) are influenced by the language of their partner in the language(s) they speak to their children. If the BIL parent's

partner grew up in a Welsh-only home, that BIL parent is likely to speak Welsh to his/her children. If the BIL parent's partner grew up in an English-only home or in a Welsh and English home (or if the BIL parent is single), they are only about 50% likely to speak Welsh to their children.

b. Adult abilities in the language. This factor, of course, is highly correlated with a number of factors:

- (1) Adult category--i.e., the language(s) spoken in the parent's home when s/he was a child.
- (2) Language of interaction with friends when the adult was a child. This can impact negatively or positively in relation to the minority language:
 - As much as 25% of W-W parents who primarily spoke English to their friends judge their abilities in Welsh to be low.
 - In contrast, 33.3% of E-E parents who primarily spoke Welsh to their friends judge their abilities in Welsh to be high.
 - Among BIL parents, 95% of these who spoke Welsh to their friends judge their abilities in Welsh to be high, whereas only 50% of these who spoke English to friends judge their abilities in Welsh to be high.
 - For the non-minority language, English in this context, all parents, regardless of language spoken with friends, judged their competence to be quite high.
- (3) Language 'constellation' of the adult when s/he was a child and in later years:
 - Parents' abilities and choice of language to speak to children is highly related to the 'constellation' of speakers around them, including immediate family, extended family, friends, activities as a child.
 - Ability also appears to correlate somewhat with the consistency with which the parent has lived in Welsh-speaking communities.
- (4) For English-home-origin parents, abilities in Welsh may also correspond to developing their Welsh language as their own

children learn Welsh. Our speculation is that it is when E-E parents had older children (and, thus, could have been learning and practicing Welsh with their children) that they were more likely to choose to have the interview in Welsh.

4. Several other factors revealed by the data are relevant to language transmission practices:
 - a. Language choice by parents is usually not a deliberate, conscious decision. Parents speak in the language that feels most 'natural' for them. Judging by the language choices parents make when all options are equally available (as in the case of the telephone help lines), indicating some level of 'comfort' with the language, which language is 'natural' and 'comfortable' relates highly to adult category, speech of mother and father to the child, ability to speak Welsh, and (non-)abilities in English.
 - b. Language spoken to the child gets established very early on--before the child is born.
 - c. On the whole, language spoken to the child does not change as the child gets older.
 - d. If parents consult with others about choice of language, it is usually with another family member.
 - e. There is little carry-over in language abilities from one spoken language to the other (Welsh to English or vice versa), even though there may be carry-over for literacy skills. For this reason, any programmes developed should target the oral language more than written language.
 - f. Finally, bilingual speakers on the whole do not base choices of entertainment, such as television viewing, on the basis of the language (unless there is someone in the home with limited understanding of one of the languages). Since such media provide a large portion of the 'language constellation' of any speaker--adult or child--in the present day and age, the provision of Welsh-language programmes need to be attractive as entertainment for viewers to choose to watch them.