ATTITUDES
TO CONTEMPORARY
ENGLISH INTERFERENCE ON WELSH

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1983
I declare that this thesis has been composed by myself and that the work involved is entirely my own.

NEIL C. COLLINS
I wish to acknowledge here my thanks to all those people who gave of their time and effort in completing the questions and tests put to them. In particular, I would make mention of those four expert informants, Professors Gruffydd, Williams, Jones and Roberts, who took part in the original pilot investigation and whose comments were instrumental in signposting suitable areas of consideration for the questionnaire and usage tests.

Thanks are also due to Mr. Hugh Trappes-Lomax who contributed many valuable comments at the early stage of the research and in the drafting of the questionnaire.

My deepest gratitude must, however, be reserved for my tutor Dr. Alan Davies. Without his continued patience and stimulating advice during its long gestation, this thesis would never have come to fruition.
The research outlined in this thesis is based on the hypothesis that there is a connection between interference usage and language attitudes.

The milieu chosen for the research is present day Wales, with the contact situation under investigation involving the English and Welsh languages.

The research proceeds by investigating the attitudes and usage of four groups of subjects from the Aberystwyth area. These comprise groups of Lecturers and local Teachers and two less well-educated groups of urban subjects from Aberystwyth and rural subjects from Llangwyryfon.

The language attitudes investigated involve both general attitudes towards the language situation in Wales and attitudes towards language standards in Welsh with particular reference to interference from English. The instrument employed to elicit this data was a questionnaire comprising largely closed questions.

Comparable examples of interference usage, mainly in the lexical field, were elicited by the use of a number of specially devised tests.

Results showed that the two less well-educated groups were not as normative towards certain kinds of interference (especially lexical) and less aware of other kinds. In addition, these groups also tended to be less pro-Welsh on an index of Welsh commitment which consisted of questions on language use and on political aspects of the language situation.

In the usage tests, high levels of interference usage were revealed in the same less well-educated groups.
Some differences were also revealed between sub-groupings of the Lecturer and Teacher groups on the basis of the medium of instruction employed by the subjects in their work. Any differences are, however, restricted to the attitude questionnaire and are not paralleled in usage.

It is posited that while there is a clear relationship between the two phenomena tested, it is not proven that the relationship is a direct one.
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CHAPTER 1

INTRODUCTION
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This thesis attempts to outline some of the characteristics of the linguistic phenomenon variously known as "borrowing" (e.g. Haugen, 1950), "interference" (Weinreich, 1953; Mackey, 1962; Rozencvejg, 1976), "transference" (Clyne, 1967) and language "mixing" (Whitney, 1881; Pfaff, 1979). In particular, it attempts to pinpoint some of the motivating factors that give rise to it. The main linguistic interest of the thesis will be sociolinguistic in nature, dealing as it will with the inter-relations between the phenomenon itself and various social and attitudinal factors. Due attention will be paid, however, to the more purely linguistic aspects of the interference process.

The milieu chosen for this study is present day Wales and in the next chapter we shall proceed to describe in some detail the historical, linguistic and social background to the study, showing the interplay over many centuries between the two languages involved in this contact situation, namely English and Welsh.

Our present purpose, however, will be to discuss those sociolinguistic situations which give rise to interference, as well as the phenomenon itself, in the light of various basic sociolinguistic perspectives.

Sociolinguistics is not merely an amalgam of linguistics and sociology or indeed of linguistics and any other of the social sciences. It embraces, in principle at least, every aspect of the structure and use of language that relates to its social and cultural functions. This is obviously a very wide brief indeed.

There may be said to be a conflict between the linguistic and sociolinguistic approaches to language study. These two points of view have certainly been distinguishable for the past twenty years and linguists have tended to favour the one or the other according to their own particular interests. More recently however, linguists,
especially those on the sociolinguistic side, have sought the closer integration of the two branches.

The differences between the two branches stem from Saussure's seminal distinction between "langue" and "parole" (Saussure, 1915) and from Chomsky's later "competence/performance" dichotomy (Chomsky, 1957, 1965). In their preoccupation with the former member of each of these pairs, general linguists attempt to describe the totality of grammatical rules shared by all the members of a speech community. Idealization is inevitable on a number of levels when the linguist extrapolates general rules from the raw data of speech forms which actually occur in the community. Idealization involves not only the regularization of the data by discarding hesitations, lapses of memory, discontinuities and errors such as slips of the tongue (Chomsky, 1965:3) but also the standardization of that data and its decontextualisation.

It is these last two factors, the heterogeneous nature of speech in the community and the relationship of that speech to the social situation in which it occurs, which form the basis of the sociolinguistic study of language.

The idea of the linguistically self-contained and homogeneous language community together with that of the idealized speaker-hearer has been a basic and extremely convenient theoretical construct of linguistics proper. In actual fact, it is irrelevant whether such communities and individuals were conceived of by linguists as factual realities but they have undoubtedly provided them with a basis from which they have succeeded in isolating certain linguistic problems and offering solutions for them.

These same ideas, however, are not useful to the sociolinguist as he is dealing with speech and must
recognize the plurality of codes or code varieties within the same linguistic community or individual. Sociolinguistic studies show us that speech is not simply the result of individual choices, the manifestation of a person's psychological status but that the systematic variation in speech behaviour reflects underlying constraints.

Thus it is by no means clear that the language spoken by all members of a given speech community is as uniform or structurally determinate as Saussure and Chomsky, among many others, would have us believe. Indeed, Halliday has criticized the dichotomy between 'competence' and 'performance' as "unnecessary or misleading" (1970: 145) and he has rejected the distinction between "an idealized knowledge of a language and its actualized use". Hymes (1971b) and Campbell and Wales (1970), on the other hand, while criticizing the distinction, propose to extend the notion of "competence" to include not only a speaker's grammatical ability but also his communicative ability.

Thus, sociolinguistics deals on the one hand with the study of the influence of social factors such as the social strata of the speech community on the linguistic structures it uses and their historical evolution. This, as we have stated above, is largely at variance with current general linguistic theory (following Saussure) which sees a homogeneous speech community using a uniform linguistic code, primarily for referential functions, and attempts to elaborate context-free linguistic rules. In contrast, Labov (e.g. 1966), a leading exponent of sociolinguistic research, analyses speech in social groups and reintegrates the social context of the speech act in linguistic descriptions.

On the other hand, sociolinguists also recognize that language is not everywhere equivalent in communicative role and social value and that speaking may carry different
functional loads in the communicative economy of different societies (Hymes, 1971b: 39). Also no normal person and no normal community is limited in repertoire to a single variety of code, that is to say to an unchanging monotony which would preclude the possibility of indicating such factors as respect, insolence, mock-seriousness, humour, role-distance and so on by switching from one code variety to another. On this level, sociolinguistics deals with the comparative analysis of speech events and their constituent elements, and with functions fulfilled by speech in particular social settings. It is a paradox of sociolinguistics that the social use of language is studied through the individual, whereas the individual’s use of language is studied through a consideration of language in its social context. It is this split, of course, which forms the basis for the 'micro-' and 'macro-' approaches to sociolinguistic study (Fishman, 1971b; Bell, 1976: 25-28).

Clearly, the study of language contact and interference phenomena sits astride a wide range of the linguistic and sociolinguistic fields that have been outlined above. The changes involved in the process are entirely linguistic in nature, including phonetic, grammatical or semantic constraints or extensions. The core of the phenomenon is, however, sociolinguistic and rests squarely on the intersection between the micro- and macro-levels of the discipline. Interference involves the usage of the individual speaker in response to various macro-level constraints and we shall now proceed to discuss various aspects of these constraining influences.

For a long time, the study of language change provided
the focus for all linguistic research. Indeed, the emergence of linguistics as a science can well be said to stem from those questions raised about the origins of languages and relationships between them. The notion of 'borrowing' was an important, and useful additional tool for those early linguists employing the comparative method of historical linguistics, providing a ready explanation for those changes not susceptible to the normal methods of comparison and analogy (cf. Bloomfield, 1933: 444-476; Lehmann, 1973: 1-18; Jeffers and Lehiste, 1979: 138-159).

At this early stage in the development of language study, languages were viewed as objective historical units, autonomous of their speakers. The object of language study was the discovery of regularities in language change and the formulation of laws to explain these regularities. 'Borrowing' or interference was employed as a convenient method of explaining irregular forms.

Gradually, language came to be viewed as social behaviour and social meaning as a proper object of study. Uriel Weinreich (1953) was one of the first to raise the question of the sources and motivations of linguistic change and the need to view language as a system which is sensitive to social forces and modified by them, sometimes extensively. In "Languages in Contact", Weinreich pointed to sociocultural factors such as sex, religion, language attitudes and cultural contact as potential influences affecting types and degrees of interference. Weinreich's defined goal is the ability to predict the typical occurrence of interference and although his primary interest is in the systems involved, he insists on the consideration of social and cultural

Footnote 1: As we shall see, some linguists such as Labov would place the study of linguistic change at the focus of modern sociolinguistics as well.
The Contact Situation can be seen to be the most important locus of the social factors leading to the occurrence of interference. As we have already seen, the notion of the homogeneous speech community and the assumption of languages as distinct objects with clearly defined boundaries are largely theoretical myths (which continue, of course, to be valid for linguistic, as opposed to sociolinguistic, research). Thus, far from being exceptional, contact between languages is an extremely common phenomenon and there can be few languages, if any, that exist in total isolation despite the strong intuitions of monolingual speakers to the contrary.

William Mackey has defined language contact as:

"The direct or indirect influence of one language on another resulting in changes in 'langue' which become the permanent property of monolinguals and enter into the historical development of the language (1962 : 555)"

In this definition, Mackey is certainly looking at the phenomenon post facto, taking as his starting point actual evidence of contact in a particular language. I would prefer to take the first part of Mackey's definition as a more wide-ranging description of language contact. For, as we shall see later, not all examples of interference need become established among monolingual speakers. For our purposes, therefore, language contact will simply denote "the direct or indirect influence of one language on another".

More particularly, we will consider language contact to consist of two basic elements 'CONTACT SITUATIONS' and 'CONTACT PHENOMENA'. A contact situation will be said to exist where two or more languages are used by an individual or group of individuals. These language-using individuals are what Weinreich (1953: 1) has termed
the "locus of the contact". Contact Phenomena, on the other hand, will be defined as those linguistic consequences or effects that arise as a result of a contact situation.

**The Contact Situation**

A variety of factors bring languages into contact with each other to create a number of different contact situations. These include both the type and nature of the contact involved.

The first type of contact situation to which we wish to refer is independent of geographical proximity and can involve languages which are relatively distant. In this case, the contact is largely cultural, political or economic in character. The most common contact phenomenon that arises out of this type of contact situation is the importation of words and phrases from one language to another in the particular field of interference. Striking examples of this can be seen in English with Italian in the field of music and French in the field of diplomacy. Latin was a classic example of this type of situation during the Middle Ages where, despite the fact that it was no longer a language with native speakers, it remained the lingua franca of certain subjects including law, medicine and science and greatly influenced the vocabulary of many languages in these and other fields.

The English language occupies a similar position today, and it is not only minor languages such as Welsh that have taken in words of English origin but even major languages such as Russian, German, Japanese and French. In the latter, "les managers" face "les weekends" and long journeys along "les motorways" with "les refuelling-stops" and little chance of "un happy end". Meanwhile in the boardroom, "les panels" have "le brainstorming" about "le marketing" or "le cash-flow". In the past, the locus of
contact in these cases has tended to be situated in a relatively small group of bilingual speakers and lexical imports passed through this bilingual channel and then, from this specific section of the community pervaded the language as a whole. More and more, however, with the pervasive cultural influences of the mass media, the locus of contact has become spread over a wider range of speakers of a lower level of bilingual ability.

The second contact situation which we wish to discuss here revolves around the phenomenon known as "bilingualism", namely the alternate use by one person of two or more separate languages. Bloomfield defined bilingualism as "the native-like control of two languages" (1933 : 56). However, it has come to be realized that, as with many other things in sociolinguistics, speaking one and speaking two languages forms a continuum on which it is very difficult to determine exactly a particular degree or range of competence at which a person should be said to be bilingual. As a result, the notion of bilingualism has tended to become broader in scope than as set out by Bloomfield above. Haugen, for instance, defined bilingualism as the ability on the part of a speaker to produce "complete meaningful utterances in the other language" (1953 : 7). More recently, bilingualism has even been equated with a passive knowledge of the second language, and has been defined as any "contact with possible models in a second language and the ability to use them in the environment of the native language" (Diebold, 1961 : 111).

For our purposes, therefore, we will view bilingualism as forming a wide-ranging continuum according to the

Footnote 2: It is axiomatic in sociolinguistics that bilingualism may involve two or more languages and any reference to bilingualism or the languages involved should be taken in this vein. For ease of reference, we have tended to limit our discussions to situations involving two languages.
speaker's relative grasp of the languages involved. This continuum extends from the complete mastery of the languages at the centre to a situation where the speaker has only a limited knowledge of one of the languages at either end. The model is rather more complex where more than two languages are involved.

At this point, it would be useful to discuss in more detail the relationship between a bilingual's languages. Two separate dichotomies may be observed according to the time focus employed. On the diachronic level, the languages may be differentiated according to the order of their learning, whereas on the synchronic level, they may be distinguished by the degree of their present use. (Fig. 1)

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<tr>
<td>Diachronic</td>
<td>First Language</td>
<td>$L_1$</td>
</tr>
<tr>
<td></td>
<td>Second Language</td>
<td>$L_2$</td>
</tr>
<tr>
<td>Synchronic</td>
<td>Primary Language</td>
<td>$L_p$</td>
</tr>
<tr>
<td></td>
<td>Secondary Language</td>
<td>$L_s$</td>
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FIGURE 1

The above description (of Bell, 1976) is, of course, concerned entirely with the 'microscopic' level of sociolinguistics, that is to say it has to do with the capabilities and practices of the individual speaker. On the 'macro' level of the speech community, the situation is much more complex since the mastery of each member of the speech community over the languages will not be the same. Only very rarely, if ever, will two languages be in a state of equilibrium in a community; usually members will have different languages as their $L_1$, or one language will be used in more domains than another. Other, social, factors such as power and
prestige may also intrude on this level, and mention has been made of an upper or dominant language in a bilingual situation in comparison with the lower or subordinate language.

"The upper language is spoken by the dominant and privileged group"
(Bloomfield, 1933 : 462)

From Weinreich (1953) and Ervin and Osgood (1954), there grew a realization that bilingualism was an example of "co-existent systems" (cf Fries and Pike, 1949) and that multi-code usage is, in fact, normal linguistic usage, whether it involves inter- or intra- language switching. Bilingualism may be considered to be a situation where the codes in a speaker's verbal repertoire may be labelled as separate languages. The important question to answer when describing bilingualism is whether the individual speaker possesses one or more systems. Ervin and Osgood, following Weinreich, suggest that the answer to this question varies as one passes along the continuum that is bilingualism. They posit the existence of a continuum stretching from co-ordinate to compound bilingualism and their definition of these two notions has important implications for a basic axiom of descriptive linguistics, namely the indivisibility of the linguistic sign. Following Saussure, linguistic analysis has rested on the relationship between linguistic signs and their referents, with the sign consisting of both form and meaning. For the co-ordinate bilingual, there is said to be two signs for the same referent whereas for the compound bilingual, both signs are said to be fused in a single semantic base.

Weinreich further suggested the existence of subordinate bilinguals, who would obviously appear at the co-ordinate end of the bilingual spectrum. Whereas the compound bilingual may be said to have two $L_1$, the subordinate bilingual, like the co-ordinate bilingual, will have an
L₁ and an L₂. The subordinate bilingual, however, largely proceeds from L₁ to L₂ by a process of translation, with the L₂ word motivated by the content part of the L₁ sign, rather than by the referent involved.

The three notions of subordinate, co-ordinate and compound bilingualism would seem to represent three important divisions in the bilingual spectrum. Furthermore, they would certainly seem to correlate with the progress a speaker might be expected to make along the continuum as he becomes more proficient in his L₂. He may, however, become entrenched at one particular point on the continuum for various reasons. It should also be noted that a speaker's point of entry onto the continuum may be affected by the relationship between the two languages in the community as a whole. Thus it will be seen that speech-communities may also be said to pass along the bilingual continuum and that new members born into the community will enter the continuum at the level which the community has reached.

An interesting point is raised by the question whether bilingual speakers are in fact members of more than one distinct speech community or whether they form a separate bilingual community in their own right. Mackey (1962 : 554-555) states that a bilingual community can only exist as "a dependent collection of individuals who have reasons for being bilingual". A closed community in which everyone was bilingual would have no reason to remain bilingual unless the languages were clearly differentiated functionally in the community. Fishman has discussed this functional differentiation in terms of domain (1965, 1971b) and by extending Ferguson's notion of diglossia (Ferguson, 1959) to the bilingual situation (Fishman, 1967). These matters will be discussed more fully below in relation to the contact phenomenon known as code-switching.
A closer inspection of bilingual groups, however, would seem to show that the situation is more complicated than Mackey's description would suggest. Figure 2 shows the two basic types of bilingualism that can arise in a contact situation.

![Figure 2](image)

(i) (ii)

FIGURE 2.

It will be realized, of course, that these two diagrams represent very much idealized situations and that great variety both as to the relative size of the language groups A and B, and the degree to which they overlap may occur. Further languages could also be added to the model to make varying multilingual communities. The type of situation involving a closed community with all languages common to every speaker, which Mackey correctly considers impossible, would be the one where the two circles coincide exactly.

Of these two diagrams, it is the first, (i), that corresponds most closely to Mackey's definition of the bilingual community. Here, the two languages overlap in that some of the speakers of language A also speak language B and comprise part of the total number of speakers of that language. In this instance, the bilingual group will tend to be relatively stable, as both languages are supported by a background of monolingual speakers who will generally be less susceptible to contact.
phenomena and who will set a standard to which the bilingual speakers can approximate. This external standard is a strong maintenance factor for the speech of bilinguals. It should be noted, however, that the relative prestige and number of speakers of each language can vary greatly, and these and similar factors will, in fact, affect maintenance. Examples of this type of situation are to be seen in Belgium (where the competing languages are French and Dutch) and to a certain extent in Canada (with Canadian English and Canadian French).

In the second diagram, we see that language A entirely encompasses language B in that all the speakers of language B also speak language A. This means that language B has no supporting background of monolingual speakers at all (or perhaps a very small and insignificant, non-influential, residual group). The absence of a strong external standardizing influence increases the importance of internal maintenance factors such as a strong literary tradition or a particularly partisan attitude on the part of the minority speakers. Examples of this type of situation include not only Wales (with Welsh and English) but also France (Breton and French; Occitanian and French), Ireland (Irish Gaelic and English), Scotland (Scots Gaelic and English) and Spain (Catalonian and Spanish; Basque and Spanish). It will have been noticed that each of the pairs of languages mentioned as representative of this kind of situation consists of a major language and a minor one. Indeed, this situation tends to be rather unstable and can perhaps be best described as 'transitory bilingualism'. Certainly it is true to say that all bilingual communities arise, as in diagram (i), out of the interaction of two (or more) monolingual communities, where prestige and other factors are relatively equal between the languages, or where social, economic and political circumstances do not favour one language over the other, bilingualism.
will tend to stabilize into the situation shown in diagram (i). However, where there is an imbalance between the two languages as regards these same factors, there will tend to be a gradual drift towards a greater use of the more prestigious language, which progresses by a slow shift in the relative numbers of speakers of each language in favour of the major language. In general, the minority language will become confined geographically to a relatively small area or functionally to a few domains. The influence to which the minority language is subjected by the surrounding speakers may be so strong as to overwhelm it entirely, although situation (ii) may become relatively stable if language B becomes entrenched in certain domains.

Contact Phenomena

As we have seen, a number of contact phenomena can be said to arise from the process called bilingualism, and they would seem to fall into two separate groups. On the macro-level, involving the relationship between the languages concerned, the major contact phenomenon which is to be observed has already been outlined above. This is the phenomenon known as 'language shift': either the two languages exist in a state of relative equilibrium or there will be a tendency for the one language gradually to replace the other, as is happening with the Celtic languages. On the micro-level, in the individual speaker, there will generally be a tendency for the two languages to intermix, particularly in the case of transitory bilingualism, or for new languages to form as with lingua francas or pidgins. The intermixture of the languages can take two forms: either the speaker will tend to switch from one language to the other (i.e. code switching) or he will tend to incorporate linguistic items from one language when speaking the other.
1. Code Switching

With a bilingual speaker, one of the most interesting points to be considered is the degree to which he switches from one of his languages to the other, and his reasons for doing so. A large part of socio-linguistic research has involved the isolation of those situational factors that constrain a bilingual's choice of a particular language (Denison, 1971; Rubin, 1968; Salisbury, 1962; Sankoff, 1968). Rubin (1968), for instance deals with the relationship between Spanish and Guarani among bilingual speakers in Paraguay.

Joshua Fishman has made the main theoretical contribution in this field and set the keynote in his aptly entitled article "Who speaks what language to whom and when?" (Fishman, 1965 revised as Fishman, 1971b). Here, and in his study of the bilingual contact situation in the Puerto Rican community of New York City (Fishman et al, 1968), Fishman maintains that factors such as language loyalty, prestige and relationships between speakers are too variable to be employed usefully as determinants of language choice. However important they may be to the individual speaker (and there seems little doubt but that they do play an important part in the individual's choice of a particular language), such factors will be hard to examine and will tend to vary in meaning from speaker to speaker and from situation to situation.

As a result, Fishman established the important notion of 'domain', based on the work of certain German linguists in the field of language maintenance and language shift in multi-lingual settings. Schmidt-Rohr (1932) was the first to suggest that 'dominance configurations' were needed to reveal the overall status of language choice in certain domains of behaviour such as home, school, playground, church and government.
In Fishman's sense, 'domains' are institutionally given "spheres of activity" or "occasions on which one language (variant, dialect, style, etc) is habitually employed rather than (or in addition to) another" (Fishman, 1966 : 428). He further states that they attempt to designate the "major clusters of interaction situations that occur in particular multi-lingual settings" (Fishman, 1971b : 19). These domains are not necessarily easy to identify:

"the appropriate designation and definition of domains of language behaviour obviously calls for considerable insight into the sociocultural dynamics of particular multi-lingual speech communities at particular periods in their history" (ibid : 19).

Different domains may thus be appropriate for different speech communities, or for different sets of interlocutors in the same community. Among the everyday domains pointed out by Fishman are the family, friends, employment, religion, education and administration.

Fishman points out further that there are a number of other factors which contribute to and are subsumed under the concept of domain. For instance, each domain is characterized to some extent by the particular set of role-relationships that belong to it, such as 'parent-child', or 'spouse-spouse' in the family. It is important to realize that these role-relationships work both ways and consist of both hearers and speakers, rather than just participants (cf Mackey, 1962, for an exposition of this view), for particular behaviours (including the use of a particular language) may be expected of individuals vis-à-vis one another. In addition, there may be some distinction between multilingual comprehension and multilingual production.
Each domain can therefore be differentiated into role-relations which are important or typical in some societies at certain times. These will consist of the various participants and the different possible interactions between them. Other possible combinations in different domains include priest-parishioner, employer-employee, pupil-teacher or judge-defendant.

Final language choice will also, however, take into account the factors of 'topic' and 'locale'. Thus, it is not only important to consider who is talking to whom, but also what they are talking about and where the conversation is taking place. A priest may use one language when talking to a parishioner in church but another if they are situated on the street, and similarly if there is some difference in topic. This is not to suggest, of course, that all changes in role-relation, topic or locale are going to bring about a switch in the code, but merely that such switches will tend to occur in relation to certain of these factors.

It should be pointed out, however, that other factors can also account for individual instances of code switching within the context of specific domains, locales, topics and role-relationships and that these four alone are not adequate to describe or explain the switching phenomenon. Thus it is important to know what part such things as humour, intimacy, respect and so on play in the choice of a particular language or variety. One way out of this problem is to follow Hymes (1971a) in setting an even greater number of determining factors, adding, for instance, 'setting', 'key' and 'genre'. This process, however only serves to set up an even more complicated network of interlacing factors and while making the description of a particular language choice more accurate, it does nothing to make the prediction of a choice more certain.
Fishman argues for a similar kind of factor analysis in the hope of finding some underlying general constraints which may clarify these more difficult types of code switching behaviour. In particular, he refers to two complementary sets of domains which correspond to two 'cultural identifications' or 'value clusters' for the given society namely the 'high culture' and the 'low culture', the one emphasizing distance, power, formality and the other intimacy, informality and solidarity (cf Brown and Gilman, 1960).

A particularly interesting example of code-switching is the phenomenon which is known as 'diglossia' (Ferguson, 1959). In diglossia, code-switching has become institutionalized and habitual and there is a socially-based and culturally-valued functional differentiation between the codes present in the society. The term was first introduced by Ferguson to describe switching between varieties of the same language which are markedly different. The specific examples which he used were Arabic and Greek. Here the High variety (H) is used in formal situations such as writing, religion and lectures, and the Low variety (L) for everyday speech. Fishman (1967) has shown that this notion is easily adaptable to bilingual situations where the H and L varieties are represented by separate languages instead of different varieties of the same language. Fishman envisages the possibility of having bilingualism both with and without diglossia (and vice-versa). The example of the Belgian contact situation may be taken as a case of bilingualism without diglossia. Here speakers belong to more than one L1 speech community and certain sections of society operate in more than one language. Neither of the languages used in the society is considered by consensus to be higher than the other. The occurrence of diglossia and bilingualism together is more rare but would seem to operate where a large proportion of a community can
function in more than one nationally recognized code and where there is a functional differentiation of the languages. The situation described by Rubin (1968) between Spanish and Guarani in Paraguay would appear to be typical of bilingualism with diglossia. The bilingual contact situation in Wales appears to be nearer the latter of these, at least among certain speakers, with English as the H variety and Welsh as the L variety. Certainly, some Welsh speakers would feel that English is the more appropriate language for writing and more formal situations. Other speakers, however, may conduct both High and Low functions in both languages and switch between them in line with some of Fishman's less regularized factors. Others again may insist on using Welsh at all times except when communicating with those who are unable to speak that language at all. This shows the interplay of another important influencing factor, namely attitude which will be discussed more fully below and which comes to bear more relevantly in a transitory bilingual situation among the speakers of the declining language.

2. Pidgins and Creoles

Another outcome of language contact may take the form of a synthesis of the varieties involved in the contact. A pidgin language represents the attempt by two communities to create a makeshift variety for the purposes of immediate communication in certain restricted situations. It is this restricted characteristic of pidgins which is their most obvious feature, for they need to be easy to learn. Furthermore, as the dominant speakers in the contact situation need to be given an incentive to learn another variety, the pidgin tends to be based more closely on the dominant speakers' language.
Another important characteristic of pidgin languages is the fact that they have no native speakers of their own which is a result of the fact that they are not used for in-group communication. In Le Page's terms they tend to be "diffuse" varieties (Le Page, 1968). They are nevertheless varieties in their own right and not merely inferior varieties of another language or the result of particularly heavy borrowing. Furthermore, although they do not have native speakers, they do have a community of speakers who pass the pidgin on to future generations, indeed it has been argued (Whinnom, 1965) that many pidgins may have a common origin in a Portuguese-based pidgin from West Africa.

When speakers of a pidgin have children and use that language to rear their children in their community, a pidgin can be said to have acquired native speakers and to have become a creole (Sankoff and Laberge, 1974). In this respect, a creole is like any other language except where it co-exists in the same community as the dominant language on which the parent pidgin was based. Derek Bickerton (1975) has described such communities in terms of a 'creole continuum' extending from the pure creole (the "basilect") to the standard version of the dominant language (the "acrolect").

In an article which is of particular relevance to our consideration of language contact in Wales, Peter Trudgill (1978) has adapted the notions of creolization and "acquisition of native speakers". His observations are based on research work carried out into language contact in the Albanian communities of Greece (Trudgill and Tzavaras, 1975).

Trudgill compares the process of minority language decay with pidginization and creolization. Whereas creolization involves the acquisition of native speakers, language decay involves a loss of them.
Also, language decay involves processes of reduction and simplification similar to those to be found in pidginization, together with a restriction in fields of usage. Trudgill appears to prefer the term "creolization in reverse" because the variety which is the product of the process still has native speakers. Despite the interesting parallels, Trudgill concludes that the processes are nevertheless distinct. In particular, younger speakers, although learning "imperfectly", do remain in full contact with fluent speakers.

3. Interference

The third contact phenomena arising out of the bilingual contact situation to which we wish to refer is variously known as "interference", "borrowing", or "mixture" and it is this phenomenon that provides the central theme of this thesis. As we have stated above, a detailed description of the formal characteristics of the phenomenon and of the motivating factors behind it will be given more fully elsewhere and for the present we will restrict ourselves to a basic outlining of the phenomenon.

Weinreich (1953) employs the term "interference" and defines it as follows:

"those instances of deviation from the norms of either language which occur in the speech of bilinguals as a result of their familiarity with more than one language, i.e. as a result of language contact" (1953: 1)

Interference, therefore, involves changes in the system of one language as a direct result of influence from another. As we shall see below, the changes effected may be of a number of different kinds. They may, for instance, involve the transference of linguistic items
from one language to the other, the importation of grammatical structures, morphemes, idiomatic expressions, changes in semantic structure and even the inclusion of holophrases taken as a whole from that language.

Clearly, this last kind of interference is very similar in nature to code switching as described above, except that it occurs, by contrast, at a level lower than that of the sentence. It would seem that the two phenomena are closely allied and Lado (1957) suggests that "linguistic distortions heard among bilinguals correspond to describable differences in the languages involved". That is to say, interference in the contact situation occurs because of restricted competence in the L₂ by the bilingual speaker and the consequent intrusion of L₁ forms and constructions. Mixture occurs because the switching mechanism, whatever form it may take, is not in order. We shall see below that this is rather a simplistic view of the matter, and we will suggest that interference may increase in the transitory bilingual situation where the speaker's competence in the L₂ improves and develops as a second L₁. At this stage, unless the two languages are sharply differentiated, there will tend to be a certain amount of regularization between the linguistic systems involved by a process which might be called "interlingual identification" whereby a system in one language, be it semantic, grammatical or phonological, becomes identified with a similar system in the other language and the two are regularized in some way.

Code switching and interference can frequently only be differentiated by the degree to which this regularization or assimilation has taken place. If an L₁ word is found in the second language in an unassimilated form, it can be taken to be an example of a switch in code rather than a transference of an L₁ item into the
L2 system. Matters are not, however, as entirely clear-cut as this and linguistic borrowings tend not to be completely assimilated, particularly during the later stages of transitory bilingualism. This in turn leads to problems in the provision of suitable phonemic descriptions in these situations.

More recent research in the field of contact situations and contact phenomena have tended to talk in terms of language death and decay (cf Dorian, 1973, 1977; Dressler 1972; Dressler and Wodak-Leodolter, 1977). The background to this research is provided by Alan Thomas (1982). As Thomas rightly points out (1982: 210), the question for the linguist to answer is whether the demographic decline to be seen in the transitory bilingual situation is accompanied by parallel linguistic decline. One of the obvious characteristics of linguistic decline is interference from the dominant language although it is a question for research whether it is one of its determinants. Another characteristic of linguistic decline is the progressive shrinkage in the range of styles and domains open to the subordinate language and the concomitant code switching that frequently occurs. The suggestion is that language use eventually undergoes such considerable restructuring that the language becomes depleted as a system. In effect, the language has become "destructured" in a process that may be likened to pidginization (cf Dressler and Wodak-Leodolter, 1977: 3.7) and which is akin to the "creolization in reverse" described by Trudgill (1978). Hall (1965), on the other hand suggests that all languages have a life-cycle in which cumulative structural expansion is followed by reversion to a simplified form.

Before embarking on a more detailed consideration of the interference process, we shall conclude this section with a look at various views of the strategies employed
by the individual speaker in the contact situation.

In this respect, three related concepts used in language teaching studies are of some interest. These are the concepts of interlanguages (Selinker, 1969, 1972; Richards, 1972) idiosyncratic dialects (Corder, 1971) and approximative systems (Nemser, 1971). All three concepts stem from a consideration of the various strategies employed by language learners through an analysis of errors that they make during the learning process.

Some descriptions of interference tend to be monolithic and prescriptive viewing interference as examples of linguistic malfunctions or "mistakes". The basic premise behind these three concepts is that all utterances produced by the learner, no matter how minimal his competence in the L2 are just as much language as the L1 at which he is aiming and form a separate system between the L1 and the L2. This system which is partially isomorphic with the L2 is rule-governed and constitutes that knowledge of the L2 that is available to a particular user. The system will itself be almost certainly changing and may represent a particular point in the evolution of an individual's competence in the L2 or it may be "fossilized" at a specific point in one individual or it may become "fixed" in a society as in the case of a pidgin or a creole.

The notion of interlanguage and its related concepts has so far only been applied to the language learning situation but it seems to us that it could equally well be applied to the transitory bilingual situation and to the loss of a language as much as to the learning of a new one. Corder (1971, 1973), for instance, has spoken of an idiosyncratic dialect as "a peculiar personal code of the learner" (1973: 268). The important point to note here is that the idiosyncratic dialect is primarily the property of the individual, and only that of a
social group insofar as the group forms a homogeneous class. In the learning situation, the learner's dialect is inherently unstable, representing as it does one point in the process of L₂ acquisition. A similar situation may be said to obtain in language death where the speaker is "losing" his L₁ - his dialect is a single point on a continuum of decline. It is the intermediate nature of these dialects between two distinct codes that gives rise to the name interlanguage, (Selinker, 1969). The fossilized or fixed type of interlanguage may be seen, perhaps, in the established forms of interference.

We therefore have a view of interference, at least in its most extreme form, as an example of interlanguage in the bilingual individual between the two (or more) languages which comprise his verbal repertoire. We are suggesting that interference is largely an idiosyncratic mixture of codes occurring in the speech of a bilingual individual in two main situations:-

1) at various stages in the process of his learning his L₂

and

2) at various stages in the process of his losing his languages through language decline and shift, the interference occurring in the language that is being lost.

Interference can also occur when a bilingual's languages are fairly stable; but it may even be possible to propose an interlanguage to account for examples of interference here, forming a bridge between the two languages involved.

It is important to emphasize here that the theory proposed above is not intended as a method of accounting for the occurrence of the interference phenomena, for
which various social factors such as prestige need to be considered, but merely a tentative suggestion as to the mechanism involved in their production.

In conclusion, I would like to stress that previous studies have tended to concentrate on the linguistic aspect of the interference mechanism discussing the various phonological, lexical or semantic changes involved in the transference of linguistic elements in contact situations from one language to another. While we will, of course, be giving due consideration to these points, with particular reference to the dynamic aspects of the phenomena, we shall also be making some attempt to follow Weinreich's early exhortation (1953: 83) to consider more fully the social aspects of the interference phenomenon, including the motivational factors behind it.
CHAPTER 2

WALES
As we have stated above, the chief locus for our study of interference will be provided by the bilingual contact situation between English and Welsh in Wales. Wales presents a wealth of material to the potential sociolinguistic researcher, giving as it does a wide diversity of geography, language and life style. From the largely rural areas of the west and north to the industrial regions of the south and north-east, the Welsh and English languages are used and interact to varying degrees. The Welsh language is undoubtedly in decline as a result of this contact and the "language question" has become highly politicized and arouses strong feelings on both sides of the language community. This present chapter will attempt to set out the background to the study by describing the present situation in Wales and outlining some of the historical and social factors that have shaped its present form.

It is perhaps surprising that sociolinguists have not made greater use of Wales in their studies to date. Reference to the linguistic situation in Wales has been only cursory (cf Mackey, 1970a: 417, Fishman 1971a: 217) and little detailed empirical study has actually been undertaken. That work which has been done has been largely in the field of the relationship of bilingualism to intelligence (Saer, 1932; Jones, 1952, 1953) and the relationship of attitudes to the teaching of Welsh both as a first and second language (Jones, 1949; 1950; Owen, 1960; Edwards, 1970; Thomas, 1970 and Schools Council, 1973). Although the study of attitudes can be an important factor in the unravelling of certain major sociolinguistic problems and will, indeed, form an important part of this study, little has been done so far in Wales to examine other areas of sociolinguistic relevance such as stylistic variation, language maintenance (cf here, however, Clayton, 1976) standardization, code switching, interference, socialization (a start has been made on this recently
Set on the extreme western edge of the British mainland, bounded by the sea on three sides and by the English counties of Gloucestershire, Herefordshire, Shropshire and Cheshire to the east, Wales is a largely mountainous country with a population in 1981 of 2,645,114. This population is very unevenly distributed through the country with about two thirds living in the industrial conurbations in the south-east in the old counties of Glamorgan and Monmouthshire (now West, Mid and South Glamorgan and Gwent). Those areas which are still predominantly Welsh-speaking are to be found in the more sparsely populated rural west and north-west, in the counties of Carmarthen, Cardigan, Merioneth, Caernarfon and Anglesey (now Dyfed and Gwynedd).

**Historical Background**

The Welsh language itself belongs to the British or Brythonic branch of the Celtic languages together with Cornish and Breton. At the time of the Roman invasion of Britain, Brythonic was spoken over the whole of England, Wales and Southern Scotland. The Britons retained their language under the Romans but it was slowly pushed back before the advancing Anglo-Saxon invaders until the inhabitants of Wales were separated from the Cornish people in 577 and from their northern neighbours at the Battle of Chester in 716. From this time, Wales was marked off as a separate geographical entity and the language began to diverge from that of its neighbours. The name that the Welsh had for themselves - "Cymry" (fellow countrymen) - would seem to suggest that they were aware of themselves as a separate entity despite a constantly changing political scene as first one tribal prince and then another had the upper hand.
It has been said (Welsh in Education and Life, 1927:5; Stephens, 1976 : 149) that the history of Wales is the history of the Welsh language and it is important for us to realize the central part that the language has played if we are fully to understand the Welsh situation. Even today, cultural differences between the Welsh and English speaking communities in Wales are expressed in terms of the language, for those who speak only English are described as "Cymry di-Gymraeg" (Non-Welsh speaking Welshmen).

Throughout the period of Wales' independence, Welsh was the language of the rulers and of administration and law and it also supported a strong literary tradition. After 1066, the language and the nation faced their first real test as the Norman conquerors of England began to push forward into southern and eastern Wales, establishing their authority there. The Welsh resisted strongly, as witnessed by Giraldus Cambrensis (c 1146-1223).

"Their mind is wholly on the defence of their country and its freedom; it is for their country that they fight, for freedom they labour; for these they think it sweet not only to fight with the sword but also to lay down their lives."

Welsh independence ended on the death of Llywelyn ap Gruffydd, the last Prince of Wales, in 1282 when all his lands came into the possession of the English king, Edward I. In the reorganization of administration that followed in the Statute of Rhuddlan of 1284, Normans came to fill the majority of lordships in place of the Welsh princes and all the chief posts were occupied by Normans. In addition, it was merchants from England who already enjoyed a monopoly of the trade in the boroughs which had grown up around the castles built to safeguard England's possessions. However, the Normans progressed little further than the coastal plains while the upland
areas remained relatively untamed.

Outside the boroughs, the language remained unaffected and there was no legislation enacted against it even after the rebellion at the beginning of the fifteenth century when the Welsh people briefly attempted to reassert their independence under Owain Glyndŵr. In particular, the language was not proscribed in the courts, and the use of interpreters, at first into French and Latin and later on into English, was allowed.

After the rebellion of 1400-1403, however, a gradual process of political and economic integration began to gather momentum and was given a vital boost in 1485 with the accession of a Welsh king to the throne of England. The victory of Henry VII at Bosworth struck an important blow against Welsh independence, leading as it did to the undermining of its foundations through the anglicisation of the Welsh nobility. Henry's victory was greeted with acclaim in Wales as victory for Wales over England and the fulfilment of numerous prophecies. With a Welshman on the throne, London became the focus of attention and ambition for Welshmen, and there was something of an exodus from Wales as the nobility sent their sons to be educated in England. Indeed, a little later, Humphrey Lluyd states in his "Commentariolum" that the majority of lawyers there were Welshmen (Lluyd, 1568 : 77). Indirectly, this situation strongly affected the Welsh language which became more and more restricted to the common people. In "Y Drych Cristionogawl", Gruffydd Robert (c 1522-1610) went so far as to say, "The nobility and others neglect and despise the Welsh language" (Robert 1585).

1536 has always been considered an important date, marking as it does the passing by Henry VIII of the Act uniting England and Wales. The Act of Union or
more properly, Incorporation is now seen as "a natural and inevitable product of certain forces that had been quietly at work for some years" (Jones, 1974: 54) and its results were similarly gradual. The Act formed a link in the emergence of England as a sovereign Renaissance nation-state. Jones (1974) has traced the development over the two centuries following 1536 of a new relationship between England and Wales, involving the progressive growth of an inferiority complex amongst the Welsh and stemming from the inferior status of the Welsh language as declared in the Act of Union.

By this Act, the government of Wales was to be given over completely to the English state, and the Welsh and English ways of life were to be assimilated as far as possible. To this end, the English systems of government and law were extended to Wales and the Act also set out to remove those different customs which set the Welsh apart from the English:

"utterly to extirp all and singular the sinister Usages and Customs differing from (His Realm of England)"
(Rees, 1937)

In particular, it attempted to destroy the Welsh language, "a speech nothing like nor consonant to the natural Mother tongue used within this realm", by restricting every office to those who could speak English:

"from henceforth no person or persons that use the Welsh speech or language shall have or enjoy any manner of office or fees within this realm of England, Wales or other of the King's Dominion upon pain of forfeiting the same office or fees, unless he or they use and exercise the English speech or language"

The immediate linguistic effects of the Act of Union
were, however, minimal. Welsh was still used by the common people even in legal and administrative matters. They were, of course, still monoglot Welsh and there is evidence that interpreters were regularly used in the courts and mixed juries of Welsh and English speakers for Welsh defendants. The seeds of linguistic decline had, however, been sown. Although the Act did not expressly prohibit the language, it effectively banished it from any official role in public life and made English a pre-requisite for any form of material advancement. There was now an incentive for Welshmen to learn English and become bilingual in a bilingual situation which would always prove disadvantageous to the Welsh language. For Welsh would always be the minor member of an unequal partnership, lacking as it did the all-important prestige bestowed by use in government, commerce and the law.

The impetus of Renaissance Humanism was already causing a small number of Welshmen to become aware of the need for the language to move forward into the mainstream of the intellectual advances which were taking place at that time. In this, some have seen the earliest origins of what has been termed a "Welsh language movement" (Dafydd Glyn Jones, 1973), consisting of individuals eager to foster the Welsh language. However, two points should be taken into account here; firstly, this was not a movement in any formal sense, and secondly it would be a mistake to assume that all these individuals involved were motivated solely by concern for the lot of the Welsh language, although some certainly were. Many saw that there was a need to foster the language if Welsh souls were to be saved, Catholicism overcome and English taught to the Welsh people.

Basically, it was a number of grammarians who saw the demise of the language as a terrible loss in its own right and these were among the first people to express
their fears for the future of the language. Siôn Dafydd Rhys (1534-c 1618), for instance, stated in the introduction to his 'Cambrobrytannicae Linguae Institutiones' (Hughes, 1951) that the language was about to die and that his book was an effort to save it. In his book 'Oll Synnwy Pen Kembro...' (1547?), William Salesbury (c 1520-1595) similarly states his fears for the language:-

"A nyd achubwch chwi a chweirio a pherfeithio'r iaith kyn darvod am y to ys ydd, heddio, y bydd ryhwyr y gwaith gwedy".

He goes on to say that if a language cannot encompass learning, knowledge, wisdom and religion, it is nothing but "simwnt adar gwylltion, ne ruat aniveileit a bwystviloedd".

In the same book, Salesbury sets out four aims for the Welsh language:-

1) Welsh would have to make greater use of printing.
2) The language would have to be "perfected" by enlarging its vocabulary and polishing the grammar in order to encompass the different branches of the new learning.
3) Welsh would have to encompass this new learning or it would not deserve to survive.
4) The Bible would have to be translated into Welsh.

The last of these was achieved within two generations and with the support of the English Parliament. In

Footnote 1: If you do not save, correct and perfect the language before the departure of today's generation, it will be too late to do the work afterwards.

Footnote 2: the twittering of wild birds or the roaring of animals and beasts.
In effect, Wales at this time displayed a situation that was closely akin to the "diglossia without bilingualism" situation as described by Fishman (1967). Community use of the two languages was strictly differentiated functionally although diglossia was here salient on a societal rather than an individual basis with little functional code-switching. This fact is, of course, a function of the monolingual status of a large body of the Welsh population.
was strong numerically, we have already seen that even those men who cherished it most and were most optimistic as to its future prospects, were already feeling that they were swimming against the tide.

The translation of the Bible also had important consequences for the development of a standardized code for Welsh. In attempting to create a language suitable for the Bible, Bishop Morgan based his translation on the archaic code employed by the professional bards and set a written standard for the language which was to survive, with some modifications, until the present day. Although it was important that the language should have a written standard, this standard has tended to become fossilized in Welsh; for while the spoken language continued to develop, the standard remained much as it was, retaining spelling-pronunciations and even constructions that had long disappeared in speech. The later efforts of Sir John Morris Jones with regard to grammar (Jones, 1913) and the Board of Celtic Studies with regard to coining new technical terms have tended to re-emphasize the gap between the standard and spoken languages. We have already noted the possible existence of a diglossic situation with bilingualism with English and Welsh in certain situations. It also seems that certain speakers display diglossia in Welsh along the lines proposed by Ferguson (1959) with regard to, for instance, Greek and Arabic.

From the sixteenth century onwards, Wales was economically still very backward with a mainly rural and agricultural economy governed by a land-owning class which was largely anglicised. English was firmly established as the official language and after the Tudors the Welsh people became used to seeing every official, political and social movement as coming from England. Their language was bolstered, as we have noted, by the position it held in religion and the revival in
religion of the following centuries served to reinforce that position.

A number of factors were therefore working together to consign the Welsh language to an inferior position vis-à-vis English (cf Jones, 1974)

1) there was the importance of English for various aspects of social advancement in general.
2) a Welshman had gained the crown of England and fulfilled a long tradition of prophecy.
3) there was a kind of "Welsh imperialism" based on the fact that Welsh poetic tradition saw the Welsh people as the original inhabitants of Britain and Wales was therefore associated by them with the island as a whole.
4) the new system after 1485 brought political cohesion where previously there had been disorder in Wales, in law and administration. Even before the Act of Union, there had been a desire among the gentry for such an Act (cf Jarman, 1950).
5) the predominant mood of the Renaissance age was towards centralization.
6) there was finally the question of English imperialism. It seems unlikely that this was very active in form but was merely a kind of bored condescension or colonialist negativity which can be more destructive than open aggression and hostility. This kind of superior attitude may be seen in the English "Wallography" (1682)

"Their native gibberish is usually prattled throughout the whole of Taphydom except in their market towns, whose inhabitants being a little raised do begin to despise it."
It was in this atmosphere that the political and legal institutions were built into the community in their English form, became established and spread their influence. It was in this atmosphere also that the first grammar schools were established in Wales and their chief aim was naturally Anglicisation. Their immediate effects were negligible, attended as they were by the merest minority of children, but they set the pattern for a system that was to be much more influential during the nineteenth century.

Despite these adverse factors, the language remained numerically strong and relatively stable for some centuries. We have already pointed to the importance of the language's position in religion as a maintenance factor but a number of other factors are also important. Certainly the fact that Welsh was the language of the status quo was most important. Ignorance of English was frequently used as an excuse for the provision of material in Welsh, particularly of a religious kind. With the language left in the hands of the "gwerin" - the common people of Wales - literature took a new turning becoming more popular as the Welsh poets could no longer depend on their traditional source of patronage, i.e. the gentry who were by now Anglicised. For the first time, every Welshman was both allowed and actively encouraged to take part in the cultural life of the country. With the revival from the mid-eighteenth century of the "eisteddfod", Wales' most characteristic cultural institution, the individual was rewarded with acclaim and recognition and was encouraged to become skillful in certain limited branches of the arts.

Williams (1958) also points out two other, seemingly paradoxical factors that helped to maintain the language. The first of these is the servility of the Welsh people themselves which is to be compared to the
stubborn resistance of the Irish, for instance, in the face of the English crown. This submissiveness may have undermined English determination to enforce uniformity. The second factor is the decentralized nature of Welsh society in the Middle Ages. Williams (1958 : 93) states that if the Welsh princes had succeeded in establishing a centralized state and court, this might have been anglicised more easily. As it was, the more disparate nature of Welsh society ensured that it was much harder for it to be influenced effectively.

Linguistically, these factors seem to have cancelled each other out; the language was downgraded in various official spheres but bolstered in religion and by a strong, popular cultural tradition. The level of immigration of non-Welsh speakers into Wales during the Industrial Revolution seems to have been low as the majority of workers were taken from the rural Welsh areas. Those English speakers who did arrive were absorbed into the native population and this seems to account for the persistence of the language, even in Glamorgan and Gwent, until well into the nineteenth century.

The decline of the language from that time onwards is attributable to a number of factors, but the most important of these must be considered the advent of a rigorous English-only compulsory education system. Indeed, we have already noted that the pattern for an anglicised education was set soon after the Act of Union.

Footnote 3: It is arguable, of course, that the establishment of an English system was the result of the Welsh language's decline and not a cause of it. Certainly, the shortage of sufficient qualified teachers and the absence of an adequate supply of suitable text-books in Welsh were contributory factors in the introduction of such a system.
Various attempts were made during the succeeding centuries to win a place for the Welsh language in education, attempts which were chiefly motivated by the desire to promote the spiritual well-being of the Welsh people. The Rev. Griffith Jones (1683-1761), for instance, saw the need for Welsh schools where people could learn to read the Bible in their own language. To this end, he set up what have been termed "Circulating Schools" which spent a term in one district and then moved on to another. Between 1737 and 1760, over 150,000 pupils received tuition in 3,000 of these schools (Welsh in Education and Life', 1927 : 38). A second reformer, Thomas Charles (1755-1814) of Bala, started the Sunday School Movement where pupils of all ages were taught to read and recite from the Bible in Welsh.

Towards the middle of the nineteenth century, however, a government commission was set up to report on conditions in Wales. William Williams MP set the keynote to this report in his speech of 10 March 1846, in which he proposed the setting up of the commission. Here, he stressed the same theme as heard in the Act of Union, namely the distinctiveness of the Welsh people by virtue of the language and the need to teach them English:

"The people of that country laboured under a peculiar difficulty, the existence of the language.... Would it not be sound policy to send the English schoolmaster among them."

With these words ringing in their ears, the commissioners began their inquiries and their report appeared a year later in 1847. Produced as it was by a group of Anglican churchmen, the Report served to highlight and exacerbate the intense rivalry between the established and non-conformist strands of religion in Wales. The Report certainly drew attention to the baleful inadequacies in the education provided in Wales at the time, but many Non-conformists saw the Report as a
prejudged indictment of their own beliefs and of the Welsh language. These factors were judged to be responsible for the educational and social backwardness of the Welsh people. The Welsh language, for instance, was described as "a vast drawback to Wales and a manifold barrier to the moral progress and commercial prosperity of the people". The Report has been commonly referred to ever since as "Brad y Llyfrau Gleision" (The Treachery of the Blue Books).

The report convinced the government that the Welsh people needed English if their moral and economic position were to be improved and that an all-English education system was the best way to give them the language. The report, however, also had two important side-effects. In the first place, it administered a severe shock to the spiritual leaders of Wales, many of whom came to believe that the moral uplifting of the nation could only be achieved by the wholesale immersion of Wales in the cultural and political life of England. Secondly, the petite bourgeoisie were now convinced that their only escape from the poverty and destitution described in the Report lay through the acquisition of English.

As an initial step, school finances were linked, in 1861, with examination success. Although this was not directed specifically against the Welsh language, indeed a similar system was in force at this time in England in general, it did militate against it as Welsh was not an examination subject, and it was therefore financially beneficial for a teacher in Wales to ignore Welsh and concentrate instead on the annual examinations (Welsh in Education and Life : 59-60). A more important step was taken when primary education was made compulsory for all by the Education Act of 1870. Now, an education structure was set up which gave no place at all to the Welsh language and for the last quarter of the nineteenth century, Welsh was ruled out both as a teaching medium
and as a subject. Thus during this period, children from monoglot Welsh homes were confronted in school with formal education in an unknown language.

Some commentators (e.g. Stephens, 1976; Jones, 1973) have drawn attention to a method of punishment employed by some teachers to enforce the English-only policy and prevent children from speaking Welsh among themselves even at play. The method used was similar to one attested in other Celtic countries (cf Stephens, 1976) and in Wales it became notorious as the Welsh Not. It consisted of the hanging of a placard or block of wood inscribed with the initials W.N. around the neck of a child found speaking Welsh. The block would be passed on to another child, on his being heard by the teacher speaking Welsh and children were also encouraged to inform on each other in order to rid themselves of the block. At the end of the day, the child wearing the block would receive a caning. The system was not abolished until the beginning of the present century when O.M. Edwards became Chief Inspector of Schools for Wales. In his essay "Clych Atgof", (Edwards, 1906), Edwards, not an entirely disinterested witness, describes how he willingly took the block at the beginning of each day and refused to inform on his classmates.

In the wake of the 1847 Report and the 1870 Education Act, there seems to have been a heightening in the national consciousness which had been developing. The roots of this consciousness reached back to the works of Welsh scholars and antiquarians of the eighteenth century who justified a pride in Wales to itself through their researches and by publishing classics of Welsh literature. This consciousness was, however, limited in its effectiveness and even the most enthusiastic supporters did not see the Welsh language and Welsh thought as a suitable introduction in
themselves to mainstream European thought or general mental training. It found its expression in the formation of societies (e.g. The Cambrian Institute), newspapers (e.g. The Cambrian Journal) and in the campaign for a university college in Wales, the first of which was opened in Aberystwyth in 1872. At the same time, the movement for the greater use of Welsh in education began to gather momentum under the same influence but this was motivated, however, largely by expediency rather than feeling for the language.

1884 had seen the publication of a report by a sub-committee of the Cymmrodorion Society entitled "The Use of the Welsh Language in Elementary Schools in Welsh Speaking Districts". The report was based on a survey of the attitudes of headmasters towards the introduction of Welsh into schools. It revealed that the majority of headmasters were in favour of introducing Welsh. Of 614 questioned, 325 were in favour, 257 against and 32 neutral.

It is interesting to look at some of the reasons given by the headmasters both for and against the introduction of Welsh as they reflect some of the arguments prevalent at the time. Opponents of Welsh argued that the best way to learn English was by excluding Welsh, that Welsh was difficult to learn, that there was too much of a gap between the written and spoken forms and that Welsh did not have sufficient literary value. Those in favour of the language, on the other hand, argued that Welsh was an aid to teaching English, a source of interest in learning English and a means of awakening intelligence in general. Further they thought that official recognition of the language would eradicate the sense of shame that Welsh-speaking pupils sometimes felt.
The rising feeling of national consciousness also spurred a small group of enthusiasts to radical reaction in the face of what they saw as the worsening situation of the language. These enthusiasts eventually gave rise to the Welsh nationalism of the present century. It gradually came to be argued by some that union with England was disadvantageous to Wales. For many years, the only person actively to pursue this idea and to advocate the struggle of a small nation against imperial dominance was Michael D. Jones (1822-1898), an independent minister and principal of the Independent College in Bala. Jones wanted Wales to become a self-supporting, co-operative democracy, free from the domination of English capitalism. The experimental Welsh colony in Patagonia, which was inspired by Jones, was an attempt to put these plans into action.

In the last decades of the Victorian era, some of these ideas were embodied in a movement called "Cymru Fydd" (Wales of the Future). The movement's aim was to ameliorate Welsh economic and social grievances together with a cultural aim of fostering pride in the Welsh language and its literature. Surprisingly the "Cymru Fydd" programme omitted a policy for promoting the language in law and government. However, the movement failed after ten years due to an imbalance between the two objectives viewed by different groups of members; some aimed at an emancipation of the Welsh people and recognition for Wales within Britain, while others sought a Welsh legislature. The two groups represent two separate strains of the nationalism that was slowly developing. The two men who did most to set the scene for these strains were O. M. Edwards, mentioned above, and Emrys ap Iwan.

O. M. Edwards gave expression to the non-political aspect of the nationalist movement. He sought to remind the Welsh language community of what it had
achieved during creative periods in its history. He turned Victorian achievement into legend and correlated it with past centuries. That legend he publicized through his books and periodicals, and it worked as a valuable inspiration for work on behalf of Wales and the Welsh language.

Edwards accepted the paramount position of English in the education system. For him, Welsh was the appropriate medium for teaching about Wales. Even as Chief Inspector of Schools for Wales, Edwards' achievement was strictly confined to that stage of education where the child discovers his immediate environment and before he embarks on the formal study of subjects. Edwards may have made the entire system more humane, as in his abolition of the Welsh Not system described above, but he only made the primary system more Welsh.

O. M. Edwards used his writing to give expression to his view of the Welsh language as something to be appreciated for its own sake, irrespective of its usefulness, because the culture of which it was a part was itself a valuable expression of the human spirit. Although, Edwards' views were very influential, it may also be argued that they tended to make the Welsh complacent about the language and content with their lot. He created an awareness of the language but did not motivate any direct action to improve the language situation.

The most tangible outcome of Edwards' ideas was the foundation in 1922 of Urdd Gobaith Cymru by his son, Sir Ifan ab Owen Edwards. This movement aims at the promotion of the Welsh language among the young. It catered originally for a community of working class people who wanted to advance socially and saw self-expression in certain approved cultural and social areas as one method of achieving that aim. Apart from
carrying out those activities expected of a youth movement such as sports, recreation and summer camps, it also fulfills an important cultural function, arranging eisteddfodau for children on a nationwide basis. It has a particularly warm welcome for the non-Welsh speaking child and strongly encourages the learning of the language.

The writings of Emrys ap Iwan serve to represent the second strain of nationalism. It is here that we find the clearest vision yet stated of the importance of the language as a political weapon. For Emrys ap Iwan, the survival of the language was the only matter deserving a Welshman's wholehearted concern and the only factor which would determine whether the Welsh themselves would survive as a separate entity. The issue would only be resolved, he argued, through the will and free choice of the Welsh people. Emrys ap Iwan sought not to please people but to shock them into a new awareness of the language's potential. However, he received little popular acclaim, and indeed he was chiefly responsible for making Welsh political nationalism unpopular among the mass of the Welsh people to this day.

The second strain of nationalism was to find more overt political expression, particularly in the foundation in 1925 of Plaid Genedlaethol Cymru (the National Party of Wales) later to become simply Plaid Cymru, and more recently in the campaigns of Cymdeithas yr Iaith Gymraeg (the Welsh Language Society).

The Language Position in the Present Century

The first reliable census in 1901 showed that the percentage of Welsh speakers had fallen to 46.2 per cent of the total population. About three quarters of these were also able to speak English. The strong English element in the education system, coupled with the language's adverse position in administration, the law and commerce,
had begun to take their toll, English had made much ground at the expense of Welsh, which was being steadily pushed back all along its eastern border, in the industrialized areas to the south and north-east and in rural Radnorshire, Breconshire and Montgomeryshire in the centre. The census of 1911 showed a further decline in Welsh speakers to 43.5 per cent and by 1921 the percentage had fallen to 37.1.

The reasons which lie behind the severe decline in the fortunes of the Welsh language are chiefly economic and social. From the mid-eighteenth century on, there was a great shift from a predominantly agricultural economy to one that was dependent on heavy industry such as coal and iron. Between 1851 and 1901, while the rural population declined, the population of Wales as a whole doubled from 1.2 million to 2.4 million. There was inevitably some movement from rural to industrial areas, particularly at the beginning of the industrial revolution, but the level of immigration increased in the second half of the nineteenth century with a large influx of workers from England and Ireland which changed the structure of Welsh society in certain areas. The depressed economic situation between the two World Wars was also to have dire consequences for Wales. Unemployment rose steeply, reaching a peak of 38 per cent of the total workforce in 1932. At the same time, people were leaving Wales at the rate of 25,000 a year. All this affected the relative proportions of speakers of the two languages.

The census of 1971 revealed that the language situation was still deteriorating, with 20.8 per cent of the
population speaking Welsh and 1.5 per cent monoglot in the language.\footnote{4} A graph of the census returns from 1901 to 1971 (Fig. One) shows that the decline in the language has been consistent and rapid. It was estimated (Bowen and Carter, 1974) that the language is still losing speakers at a rate of two hundred a day.

We have already outlined the decline of the early decades of the present century, together with some of the reasons behind it. The exact rate of decline prior to the earliest censuses can, of course, only be guessed at. It would be wrong to assume, however, that the general decline reflected in the figures for Wales as a whole is spread evenly over all parts of the country.

Three basic factors need to be taken into account when one considers the reason behind this decline:

i) People who speak Welsh may cease to use the language or may not pass the language on to their children. This factor is present in all parts of Wales but was especially strong in the past in those areas nearest the border with England such as in rural Powys and the industrial areas in the south and north-east.

ii) There can be an influx of English speakers which affects the balance between the two languages. It seems most likely that it was the influx of English speaking workers during the second half of the industrial revolution that most affected the percentage figures for the whole of Wales.

Footnote 4: The recent census of 1981 shows a further decline of these figures to 19.04\% and 0.80\% respectively. A more detailed consideration of the 1981 figures will be found at Appendix IV below.
Statistics for the Welsh Language in Censuses 1901-1971

Figure One

numbers

2.421
2.656
2.593
2.599
2.644
2.731

population of Wales in millions

2.013

2 m

numbers of Welsh speakers

977,400
909,300
714,700
656,000
542,400

929,800
922,100

900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000

1901 1911 1921 1931 (1941) 1951 1961 1971
date of census
There can be a corresponding exodus of Welsh speakers from certain areas. This phenomenon is to be seen particularly in the form of rural depopulation which is prevalent in rural areas throughout the world and arises from a lack of work and inadequate wages.

It has already been pointed out that Wales is split broadly into two separate areas as regards the percentage of Welsh speakers. A county by county analysis of the 1971 figures reveals that the Welsh speaking area or heartland zone consists of the counties of Anglesey, Caernarfon, Merioneth, Cardigan and Carmarthen which are characterized by having over 60 per cent of the overall population speaking Welsh. The remaining counties form an anglicised area and have less than 30 percent speaking Welsh. The parish by parish analysis undertaken by Bowen and Carter (1974) has succeeded in delineating these areas much more clearly and shows that neighbouring parts of Pembrokeshire, Montgomeryshire and Denbighshire also form part of the heartland region. The border thus revealed has been surprisingly stable for the past twenty-five years. A poll in 1950 of Welsh speaking children in primary schools showed a border which was almost exactly the same.

The figures indicate that the greatest decline in the overall percentage has occurred in the anglicised areas and a closer examination of the figures from successive censuses shows that in the years 1911-1971, the greatest proportional decline has been in the counties of Flintshire (42-15 per cent approximately) and Glamorgan (approximately 38-12 per cent) (cf here Figure Two). Indeed, almost two-thirds (61 per cent) of the total reduction during the period 1931-1961 in the number of people who could speak Welsh occurred in Glamorgan alone. These developments served only to emphasize more clearly a dominant pattern of the
The decline of Welsh shown on a logarithmic scale by county: similar proportionate declines appear as lines of similar gradient. Thus the least decline is among the heartland counties and the greatest in Flintshire and Glamorgan.
distribution of persons in Wales capable of speaking Welsh which has held for the past century or so. This pattern has been delineated more clearly by a consistent widening of the gap between the rural heartland area of Welsh and the industrialized areas of the south-east and north-east adjacent to the English border, where the proximity of the English language and some considerable immigration had precipitated the decline of Welsh from an early date.

However, the Bowen and Carter analysis has also revealed a number of points of weakness which are now appearing in the heartland zone. In the first place, there has been a growth, particularly along the coastline, of English speaking "colonies". These "colonies" consist largely of immigrants who are either retired people or second home owners. Often, these people tend to remain apart from the rest of the community or, in the case of the second home owners, are only present occasionally. Thus, they tend to have little direct effect on the language situation. The position of second home owners has tended to raise strong opinions among language militants who claim that they worsen rural depopulation by increasing house prices to the detriment of local buyers seeking accommodation. This has led to a specific campaign on the part of Cymdeithas yr Iaith, involving the possession of second homes and also to the burning of some properties by anonymous activists.

A second threat is posed by the presence in the heartland zone of a number of towns which have for a long time been partly English speaking. These towns are Holyhead, Bangor, Aberystwyth, Llandeilo and Carmarthen. The problem which they raise is one of suburbanization where, with the exhaustion of development land in the town itself, houses are erected in the surrounding countryside. In particular, housing estates are often added on to existing surrounding villages which become
Distribution of Welsh speakers, according to the 1971 census. Striped portion marks those areas with over 70% speaking Welsh. Broken line represents the 40% isopleth. Heartland towns are also marked. Coloured areas are those which show more than twice the national decrease in speakers between 1961-1971. Notice how these occur around the 70%-40% isopleths and in the vicinity of heartland towns and suggest the existence of transition areas.
commuter settlements for the towns. This is especially true of Aberystwyth and Bangor, university towns where many of the incomers are the English speaking staff of the colleges and their families.

In addition to the usual social effects on these villages (cf Pahl (1970) on the effect on commuter villages in south-east England), the effects of suburbanization on the language can be devastating, especially as these newcomers are neither short-term inhabitants nor likely to stay out of local community affairs. Inevitably, these communities are being pushed towards anglicisation. Suburbanization around Aberystwyth is having the effect of driving a wedge between the northern and southern areas of the heartland zone. The two factors of suburbanization and coastal colonies, together with the effects of tourism, combine to create a second frontier moving against the language. As Bowen and Carter have put it:-

"two frontiers, one from the east and one from the west, are moving together, pushing with greater rapidity up the valleyways and surrounding the last isolated fastnesses of the Welsh language" (1974 : 440).

In their study, Bowen and Carter have, of course, approached this problem from a different scale perspective from the normal national or county level used. In using the parish as their basic unit of analysis, they have achieved a significantly finer degree of tuning in their description of the language situation. In particular, we have seen that the study has confirmed the existence of a Welsh speaking core area but the more refined perspective also identifies points of weakness around this core both on the eastern and southern edges and on the coastal fringe.
Ambrose and Williams (1981) have termed these points of weakness collectively the "zone of collapse" and it is here that the rate of language decline has been more rapid than the average for the country as a whole. They describe the zone of collapse as a zone of uncertainty, controversy and lack of unanimity concerning the language's future role and they surmise that this is in turn likely to exacerbate the rate of collapse.

Ambrose and Williams go on to consider the zone of collapse in more detail on the regional level with particular reference to the borderland area of Clwyd and Powys. In the study, they plot the Welsh monoglot and bilingual populations of each parish as a proportion of their total populations. The first step in the study was to provide an indication of the different phases of the decline of Welsh speaking on the basis of the census returns for the period 1921-1971. They choose to identify the following six decline phases:

1) With occasional exceptions, the whole population of a parish is still able to speak Welsh while the "monoglot reservoir" may approach half the population but is rapidly in decline.
2) The Welsh speaking percentage fluctuates between 80 and 100. The monoglot reservoir has declined to 20 percent or less.
3a) The Welsh speaking percentage is clearly in sharp decline but half the population is still able to speak Welsh. A dramatic collapse occurs in the monoglot population to as low as 5 per cent.

Footnote 5: Ambrose and Williams' studies are based largely on ideas first developed in Ambrose (1979).
Footnote 6: It should be stressed that the six phases in question are purely descriptive constructs.
3b) The decline in the Welsh speaking percentage continues even more sharply to as low as 20. The monoglot reservoir fluctuates between 1 and 10 or may be completely absent.

4) The Welsh speaking percentage declines from 20 to 1. The monoglot reservoir is usually less than 5 per cent and may be completely absent.

5) Welsh speaking is sporadic or extinct and the monoglot reservoir non-existent.

Ambrose and Williams proceed to plot the relevant phase against each parish and confirm the gradual nature of the language's breakdown. It has been estimated (Williams, 1980) that the 1981 census figures will confirm that the successive phases are moving inward towards the core area of Welsh, although a detailed study has not been possible to date.

In addition to the study of the numerical strength in a particular region, Ambrose and Williams also delineate a method for studying the frequency and versatility of the use of the language by speakers. The assessment of the frequency of language use employs a method based on the calculation of households on a local level with one or more persons able to speak Welsh. Whilst confirming the overall east-west transition in the zone of collapse, this method displays a remarkably variable degree of fragmentation in the region and shows the importance of factors such as routeways, hilltop smallholdings and villages to the process of decline. The anglicised pockets created interrupt the continuous Welsh speaking area and clearly interpose obstacles to the speaking of Welsh between groups of potential users and consequently undermine the confidence in initiating conversations in Welsh.
This assessment of language frequency is supplemented by a study based on the individual speaker's estimation of the frequency of his own overall use of Welsh and also of the language's use in various situations. As Ambrose and Williams point out (1981: 68) these are merely tentative steps along the road of mapping Welsh use in practice. Indications from Ambrose's earlier study are that major activities of daily life produce their own pattern of use but that an overall map of versatility in Welsh use tends to reinforce the frequency pattern.

An idea of the likely trends of future censuses may be gained from a consideration of a recent survey which took into account the language situation among the children in Welsh areas. The report, "Y Gymraeg yn Ysgolion Gwynedd, Powys a Dyfed" (1977)7, was prepared by a number of Schools Inspectors and traced the decline of the language over the previous twenty-five years in the primary schools of these areas. The report was based on questionnaires sent to the headmasters of these schools in 1974. On the basis of their report, the authors predict a future shortage of Welsh teachers which would damage the setting up of any bilingual education system.

The report reviews the situation from two angles, firstly, in respect of the numbers of children with Welsh as their first language and also in respect of the numbers for learning Welsh. The authors give the following table which charts the decline of the language from 1953 to 1974.

Footnote 7: Welsh in the Primary Schools of Gwynedd, Powys and Dyfed. A synopsis of this report is to be found in Y Cymro 27 September 1977.
Percentage Speaking Welsh in Primary Schools (Gwynedd, Powys and Dyfed)
(Percentage first language Welsh in brackets)

<table>
<thead>
<tr>
<th></th>
<th>1953</th>
<th>1974</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anglesey</td>
<td>79 (74)</td>
<td>48 (45)</td>
</tr>
<tr>
<td>Caernarfon</td>
<td>72 (67)</td>
<td>56 (49)</td>
</tr>
<tr>
<td>Merioneth</td>
<td>83 (77)</td>
<td>64 (55)</td>
</tr>
<tr>
<td>Cardigan</td>
<td>75 (71)</td>
<td>53 (45)</td>
</tr>
<tr>
<td>Carmarthen</td>
<td>62 (56)</td>
<td>37 (33)</td>
</tr>
<tr>
<td>Pembroke</td>
<td>20 (19)</td>
<td>10 (9)</td>
</tr>
<tr>
<td>Montgomery</td>
<td>24 (22)</td>
<td>14 (12)</td>
</tr>
<tr>
<td>Brecon</td>
<td>17 (15)</td>
<td>12 (8.7)</td>
</tr>
<tr>
<td>Radnor</td>
<td>0 (0)</td>
<td>0 (0.6)</td>
</tr>
</tbody>
</table>

Figure Four.

These figures reveal two important points. Firstly, the decline of the language has been particularly sharp in Anglesey, Carmarthen and Montgomeryshire. Secondly, in all of these areas speakers who have learnt Welsh as a second language now form a larger proportion of Welsh speakers than previously.

The report is most interesting in its consideration of the success in teaching the language in these counties. It estimates that out of every hundred who do not speak Welsh on coming to school, five learn the language fluently in Anglesey, fourteen in Caernarfon, twenty in Merioneth, 1.8 in Montgomery, six in Carmarthen, fifteen in Cardigan and two in Pembrokeshire. It would appear further, that these figures are not uniform throughout the areas involved but vary from school to school. One school in Merioneth is reported to have sixty per cent of its English speaking pupils learning Welsh fluently.

The relative positions of various age groups has been important for gauging the likely future trends in the
census figures. Consecutive censuses have confirmed the pattern of higher percentages speaking Welsh in the age group over 45 and progressively lower percentages for the younger age groups. This pattern has been mirrored by a continuous declining trend in the overall percentage as the older speakers die.

It is worthwhile, therefore, to compare the figures obtained in this survey with both the figures for the 5-9 age group and for the total population in the 1971 census. The accompanying table (Figure Five) sets out the relevant figures. It will be noted first of all that the decline in the younger age group in 1971 is reflected in all counties except Caernarfon (61.97 vs 64.37) and Merioneth (73.5 vs 78.64). The decline is marginal in Cardigan (67.6 vs 67.23). It should be observed that these three counties have the highest percentage for Welsh speakers and also the highest success rate for teaching the language in this latest report (at 14, 20 and 15 per cent respectively).

The report splits the children into the following five groups:

A. Welsh speaking from the beginning.
B. No Welsh before coming to school but fluent in it by now.
C. No Welsh before coming to school but mastery of the language developing.
D. No Welsh before coming to school and a very restricted knowledge of it now.
E. No knowledge of Welsh at all

Taking groups A and B as representatives of the Welsh speakers in this survey, a comparison with the numbers for the 5-9 age group in the 1971 census reveals a startling fall in all counties. The percentage decline in the 5-9 age group from 1961 to 1971 for the whole of Wales was 13.69 per cent. The figure for the nine
<table>
<thead>
<tr>
<th>County</th>
<th>Total % Speaking Welsh 1971</th>
<th>% Speaking Welsh 5-9 age group 1971</th>
<th>% Speaking Welsh 1974 Report (L₁ and Fluent L₂)</th>
<th>% Speaking Welsh 1974 (including learners)</th>
<th>% learning Welsh fluently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anglesey</td>
<td>69.20</td>
<td>59.94</td>
<td>48.30</td>
<td>65.10</td>
<td>5</td>
</tr>
<tr>
<td>Caernarfon</td>
<td>61.97</td>
<td>64.37</td>
<td>56.48</td>
<td>71.58</td>
<td>14</td>
</tr>
<tr>
<td>Merioneth</td>
<td>73.50</td>
<td>78.64</td>
<td>64.14</td>
<td>78.12</td>
<td>20</td>
</tr>
<tr>
<td>Carmarthen</td>
<td>66.50</td>
<td>52.05</td>
<td>36.92</td>
<td>48.63</td>
<td>6</td>
</tr>
<tr>
<td>Cardigan</td>
<td>67.60</td>
<td>67.23</td>
<td>53.29</td>
<td>74.53</td>
<td>15</td>
</tr>
<tr>
<td>Pembroke</td>
<td>20.66</td>
<td>14.37</td>
<td>10.34</td>
<td>23.56</td>
<td>2</td>
</tr>
<tr>
<td>Montgomery</td>
<td>29.00</td>
<td>19.26</td>
<td>13.53</td>
<td>23.49</td>
<td>1.8</td>
</tr>
<tr>
<td>Brecon</td>
<td>22.86</td>
<td>15.09</td>
<td>11.73</td>
<td>33.88</td>
<td>3.3</td>
</tr>
<tr>
<td>Radnor</td>
<td>3.70</td>
<td>1.43</td>
<td>0.60</td>
<td>3.28</td>
<td>0</td>
</tr>
</tbody>
</table>

Figure Five
counties surveyed in this present report is 18.14 per cent. Considering that this represents a period of only three years, this decline is particularly severe. It is especially so in the counties of Radnor (58.04%), Montgomery (29.75%), Carmarthen (29.06%) and Pembrokeshire (28.04%).

The figures outline in particular the decline that is apparent in the county of Carmarthenshire. From a percentage of 75.1 per cent for the total population in 1961, we have a percentage of 36.92 for Welsh speakers in the primary school population in 1974. The decline is certainly not pronounced in the northern part of the county where the percentage of Welsh speakers in some schools is still over 70%. In these schools, too, the percentage for the successful learning of Welsh is higher (13-19) than for the county as a whole. It is the southern part of the county, therefore, more highly industrialized and bordering the more anglicised county of Glamorgan, that has borne the brunt of the decline.

A consideration of adding the figures for those pupils in group C whose mastery of the language is improving to the numbers of fluent Welsh speakers (groups A and B) make interesting reading and indicate what effect a concerted campaign to teach Welsh might have on the language situation. The results of such a calculation are to be found in column four of Figure Five and in the counties of Anglesey, Caernarfon, Cardigan, Pembroke, Montgomery, Brecon and Radnor, the figures thus revealed are better than the figures for the 5-9 age group in 1971. In the case of Brecon, the increase would be very appreciable (15.09% vs 33.88%). For Caernarfon, Merioneth, Cardigan, Pembroke and Brecon, the figures would be even higher than the percentage for the total population of those counties in the census of 1971.
To conclude our consideration of the various language statistics, it would seem that the figures of the latest census reports and of this recent survey of primary schools show that the language situation is continuing to decline and that this decline is least severe where the language is strongest. Paradoxically, it would also appear that the decline is at its most steep in those areas where the language was, until recently, relatively strong, that is in the so-called "zones of collapse". This is particularly true in industrial Carmarthenshire and in parts of Anglesey where light industry, second and retirement homes and tourism have taken their toll. The decline is also strong in the anglicised areas of Radnorshire and Pembrokeshire, once more emphasizing the gap between the Welsh speaking and the anglicised areas.

On the other hand, the figures from the latest report are suggestive as to the effect a concerted language teaching programme could have on the fortunes of the language. In the absence of such a programme, the situation can only deteriorate even further especially in anglicised areas and on the periphery of the Welsh heartland zone.

The Other Celtic Languages

It is interesting to consider the likely future prospects of the Welsh language in comparison with those of the other Celtic languages, namely, Irish, Scots Gaelic and Breton which we shall now briefly outline.

Irish  The Irish language has a special place in the Irish State with its official status guaranteed by the Irish Constitution, Article 8 of which states: "the Irish language as the national language is the first official language". The most recent census figures available reveal that 789,429 people count themselves
as being able to speak Irish, namely 28.3 per cent of
the total population of Ireland. A comparison with the
corresponding figure for 1946 of 588,727 (21.2 per
cent) would seem to suggest that the language situation
is improving but as we shall see these figures are less
than reliable.

It is important to realize that the situation is not as
simple as it would appear at first glance, and not
nearly as encouraging for the future of the language.
The vast majority of these speakers have received their
knowledge from the educational system where teaching
the language was compulsory until recently. It may be
estimated that approximately 120,000 speakers have Irish
as their first language. It is only in the extreme west
of the country however, that Irish remains the medium of
daily life for the majority. In these areas which are
officially designated "Gaeltacht", 54,940 people speak
Irish out of a population of 66,840 (82.2 per cent).
This represents a decline in the numbers of speakers
since 1961 from 64,275 (86.6 per cent).

These communities where the language is strongest are
both small and isolated. They are situated in four
widely-spaced areas from Donegal in the north-west,
to Mayo and County Galway in the far west and Kerry in
the south-west. Small enclaves are also to be found
in Meath, "the Ring", County Waterford and in Cork.

The population of the Gaeltacht has not increased at
the same rate as the population of the country as a
whole. This is due to the economic backwardness of
the area and the desire of the younger inhabitants to
leave in search of employment and greater economic
rewards. The land in the Gaeltacht is not productive
even to give a standard of living comparable with
the rest of the country and attempts to improve the
economic condition of the area have tended to weaken
the language still further through depopulation, the arrival of English speakers and the training of some Gaels in English and the subsequent departure of some of these. There has tended to be a reaction against the traditional way of life and the language is still associated for many with poverty and backwardness and its abandonment seen as a necessary step towards advancement.

The future of the language would seem to depend very much on how the language is maintained in the Gaeltacht. At present, the Gaeltacht community is an old one with a large proportion of inhabitants over 60. The Government is now attempting to bolster the Gaeltacht by sponsoring various development projects to improve the economic condition of the area. An improvement in the language situation is only possible if these Government policies succeed in creating the jobs and the subsequent economic improvement which will keep the younger speakers in the area.

Scots Gaelic The census of 1971 revealed that 88,892 people in Scotland were able to speak Scots Gaelic. The language is most widespread in the Outer and Inner Hebrides and in small districts on the western coast of the Scottish mainland. Also included are 12,800 Gaelic speakers living in Glasgow and some 3,000 in Edinburgh. The figures represent an overall increase in the numbers of Gaelic speakers from 80,004 in 1961. During this decade, there was a slight decline in those areas where the language is strongest but this was counter-balanced by an increase in the smaller coastal districts and in the cities.

Despite this slight increase, the story of the present century has been one of decline:-
The decline in monoglot speakers has been even sharper from 43,738 in 1891 to 477 in 1971. The bastion of the language is still the Western Isles where over eighty per cent are Gaelic speaking. On Islay, Skye, Tiree and Coll the figure is over fifty per cent, while along the west coast, on Mull and in Ardnamurchan it is nearer thirty per cent.

D. S. Thomson (1971) has shown that the decline of Gaelic can be explained in socio-economic terms. Enforced clearances in the Highlands were followed by unemployment and emigration on a huge scale. Commercial exploitation introduced new trade and English predominated here too. The Gaels became alienated from their leaders and culture which became more redundant as Scotland was absorbed into Great Britain. The Highland Clearances almost completely depopulated the Gaelic heartland to make way for sheep and Gaelic was restricted to the north-western coastland and the Hebrides.

The Clearances also led to Gaelic colonies in the industrialized towns. Some of these became prosperous and financed charitable efforts in favour of the language. The Educational Society for Supporting Gaelic Schools, for instance, was set up from such resources in 1811 to foster the teaching of the scriptures through Gaelic. By 1861, 100,000 had been taught to read Gaelic and 200,000 bibles distributed. Gaelic became the language of the church in the Highlands and,
as in the case of Welsh, the language's place in religion was secured.

As in Wales, an English-only education system was set up after 1870 in which Gaelic was actively discouraged. A Welsh Not type system was adopted in these schools too: (a similar block, the Scoreen, was employed in the schools in Ireland). The schools encouraged attitudes detrimental to the preservation of the language and its lore. Gifted children tended to leave the area and in the Highlands and Islands, Gaelic became more and more the language of a residual crofter working class. Recent years have seen the greater use of the language in education and broadcasting, but very little use is made of the language by public bodies and it is not really encouraged in the courts although equal status has been granted.

The survival of Gaelic so far is remarkable enough, but its future prospects depend on the survival of the Highland community. The large scale industrialization and commercial development in some areas due to oil, holds serious implications for the future of Gaelic. These economic developments have tended to swamp the language rather than strengthen it. Present trends suggest that the new generation may be the last of the native speakers and that the situation is desperate.

Breton The population of Brittany at 2.6 million forms 7 per cent of the population of France and is mainly agricultural in character with an important fishing industry. The Breton language is spoken to the west of Plouha, Pontivy and Vannes in Basse Bretagne.

No official census figures are available for the language and therefore it is necessary to rely on estimates. An estimate for 1886, for instance, gives about 1.3 million Breton speakers, with Basse Bretagne
wholly Breton speaking. By 1914, the figure was stable at 1.3 million but the percentage of Breton speakers in Basse Bretagne had fallen to 90%. In 1928, the magazine "Gwalarn" gave an estimate of one million speakers forming 75% of the population. In 1952, Francis Gourvil estimated that 700,000 spoke Breton with a little French and 300,000 spoke a little Breton.

There would seem to have been a more dramatic decline after this due to the advent of television and the intransigence of successive French governments to the teaching of Breton.

An estimate made in 1974 gives 685,250 Breton speakers out of 1.5 million inhabitants (44 per cent). A breakdown according to age reveals a very interesting situation.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Estimated Speakers</th>
<th>Total Population</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>-14</td>
<td>18,000</td>
<td>360,000</td>
<td>5%</td>
</tr>
<tr>
<td>15-24</td>
<td>56,250</td>
<td>225,000</td>
<td>25%</td>
</tr>
<tr>
<td>25-64</td>
<td>423,000</td>
<td>705,000</td>
<td>60%</td>
</tr>
<tr>
<td>65+</td>
<td>168,000</td>
<td>210,000</td>
<td>80%</td>
</tr>
</tbody>
</table>

In a similar estimate, Bozecs gives percentages for the daily use of Breton for the same age groups as follows: -14, 8%; 15-24, 6%; 25-64, 50%; 65+, 75%, totalling approximately 385,650 speakers. He estimates that another 300,000 have some knowledge of the language.

These figures reveal a much steeper grading from one age group to another than is to be seen with the Welsh language. There is certainly a great preponderance of older generation speakers and the figures, indeed, would seem to suggest that the language is on the point of complete collapse among the younger generations.

Like the other Celtic language communities, Brittany
finds itself on the economic periphery and consequently suffers the same problems of a lower standard of living and high rate of depopulation. As it is mainly the younger people who tend to leave the area, this only makes the move towards an older generation-dominated community more marked. It has also become increasingly common that those who use the language with their children do so as a deliberate nationalistic gesture.

The language's problems are made even worse by the fact that it is situated in a highly centralized state. Brittany is outside the zone of industrial development and agriculture has been allowed to become archaic. The region has always tended to provide cheap labour for the centre and the central administration has largely been unresponsive to the language's plight. In education, Breton is now allowed as an optional subject and it is used as a medium of instruction in a very small number of schools. The majority of speakers are by and large illiterate in the language which receives very little time on radio and television. The language has made little impact on the political scene and various political movements connected with the language have suffered as a result of the fascist connections of the Breton separatist movement during the Second World War. Some young Bretons have attempted to emulate Cymdeithas yr Iaith Gymraeg in demanding official status for the language by militant and even violent action.

Footnote 8: This is perhaps more a question of practice than ability. In Brittany, as in Wales, it is hard to credit that where the majority of speakers are literate in the dominant language, they are not also able to read or write in the subordinate language, particularly so where there are no major differences of orthography or script between the languages.
The prospects for the future of the Breton language seem somewhat bleaker than for the other Celtic languages. This is particularly true in view of the serious decline among younger generation speakers. The lack of any concern shown by the French government is also an important factor in the language's decline. There seems little likelihood of this changing in the near future.

We see therefore that the position facing all four Celtic languages are remarkably similar. Each of these is representative of the second type of contact situation mentioned above (pp 12-14). The vast majority of speakers are bilingual in this and one other language. In each case, there is a small group of monoglot speakers consisting largely of older inhabitants and young children who have not yet learned their second language. In particular, each has its heartland situated on the economic periphery of the society of which it forms a part. The resultant low standard of living has the inevitable effect of a high level of depopulation. As this depopulation largely affects the more geographically mobile younger generation who are able to seek employment in other parts of the country, the language community tends to become weighted towards the older generation and a decline in the future number of speakers assured. We have seen how drastic this effect can be in the case of Breton. In Wales, Scotland and Ireland, where an improvement in the economic situation of these areas is a part of government policy, the methods of improvement may equally have a deleterious effect on the language situations; for the bringing of industry to rural areas may also result in the advent of speakers of the major language, the training of local speakers in the major language and the training of locals in skills which make it easier to find employment elsewhere.
All four languages are in competition with a major language in their respective bilingual situations, English in the case of Welsh, Scots Gaelic and Irish and French in the case of Breton. The major language has the added prestige of official status and a pronounced position in world affairs. In the case of Irish the minority language is also accorded full official status but public life in Ireland is largely carried out in English. Welsh and Scots Gaelic are used to varying degrees in public life, with Welsh probably more actively used than any of the other four. Breton is hardly used in any official capacity.

In addition, each of the Celtic languages has only limited access to the mass media. While the mass media, the most potent aspect of which is currently television, are linguistically receptive activities and are not therefore catalysts for language shift, they are nevertheless important influencing factors on minority language structure. It is Welsh which is the most widely used in the mass media, particularly after the advent of a separate Welsh language channel.

Thus, each of the Celtic languages is in a serious state of decline with many economic and social factors working against them. None of the languages would seem to be near a sudden collapse but recent estimates have shown us that Breton is at a particularly low ebb. Irish would also seem to be in danger, at least in its heartland region. Despite the low number of its speakers, the heartland of Scots Gaelic appears to be relatively stable, with a high level of language use, and fairly safe for some time to come. Of the four, Welsh is the most used in official life, education and broadcasting and these should prove important maintaining factors. The future, however, would seem to hold a period of slow decline for all four Celtic languages.
Before passing on to a more detailed consideration of the interference phenomenon, we shall take a closer look at the change in attitudes, both official and private, brought about by the continuing decline of the Welsh language during the present century. Our reason for doing this is that these attitudes form an important backdrop to a later part of our study.

We have already seen that the consciousness of nationality has remained strong in Wales, and the language a vigorous medium of literary expression even after seven centuries of conquest and a hundred and fifty years of massive industrialization and English immigration. We have also seen, however, that this has been coupled with a high feeling of inferiority among a large proportion of the Welsh people.

In Wales strong feelings about the language have generally been confined to a small proportion of the population. Among these were adherents of the two strains of the Welsh national consciousness mentioned above. Of these, the non-political strain was by far the most popular, suiting much more, as it did, the prevailing mood of the Welsh people who favoured undramatic work for the language within the prevailing political framework. The strains were not, of course, entirely separate and some members must have shared the views of both sides.

The keynote for the Nationalist cause was set by Saunders Lewis, for many years the leader of the Welsh language movement in "Egwyddorion Cenedlaetholdeb" (Lewis, 1926) where he sets out the Welsh Nationalist Party position. Welsh should be given primacy in Welsh education and life, and should become the sole

Footnote 9: The Principles of Nationalism.
medium of the country's administration and the exclusive medium of mass communications. For Lewis, the language was the essence of Welshness. Later (Lewis, 1938), he was to say:—

"Drwg a drwg yn unig yw bod Saesneg yn iaith lafar yng Nghymru. Rhaid ei dileu o'r tir a elwir Cymru: delenda est Carthargo"10

Plaid Genedlaethol Cymru sought electoral success at parliamentary and local government level but received little support.

Against a background of declining numbers of speakers and in the face of the lack of any progress on the electoral front, the younger members of the radical strain of nationalism became, in the sixties, more vociferous in their support for an active campaign to aid the language. It was Saunders Lewis, again, who gave voice to this unrest in a radio broadcast entitled "Tynged yr Iaith"11 (Lewis, 1962).

In this lecture, Lewis stressed the need for a campaign to secure and revive Welsh which involved removing what he saw as the root cause of its decline, its banishment from all spheres of administration and official activity. It was imperative that the language should obtain official status. Lewis advocated a vigorous campaign of civil disobedience to bring this about:—

Footnote 10 : It is evil and nothing but evil that the English language is spoken in Wales. It must be abolished from the land that is called Wales delenda est Carthargo.

Footnote 11 : "The Fate of the Language".
"Eler ati o ddifri a heb anwadalu i'w gwneud hi'n amhosibl dwyn ymlaen fusnes llywodraeth leol na llywodraeth ganol heb y Gymraeg" (1962 : 31)\textsuperscript{12}

Furthermore, he stated that it was essential that the language be saved before the gaining of independence:-

"Yn fy warn i, pe ceid unrhyw fath o hunan-lywodraeth i Gymru cyn arddel ac arfer yr iaith Gymraeg yn iaith swyddogol yn holl weinyddiaeth yr awdurddodau lleol a gwladol yn y rhanbarthau Gymraeg o'n gwlad, ni cheid mohoni'n iaith swyddogol o gwbl a byddai tranc yr iaith yn gynt nag y bydd ei thranc hi dan Lywodraeth Loegr." (1962 : 32)\textsuperscript{13}

Intended as a plan of action for Plaid Cymru, the lecture led instead to the formation of Cymdeithas yr Iaith Gymraeg (The Welsh Language Society). The society sprang largely from a group of younger members of Plaid Cymru who were disillusioned, often bitterly so, at how the party was developing, neglecting the language in pursuit of ephemeral electoral success. In the course of the next years until the present time, the society has undertaken a large number of campaigns aimed at gaining official recognition and provision for Welsh in various specific spheres of public life such as government forms and leaflets, road signs and other public notices, education and television.

Footnote 12 : "Go to it seriously and without faltering to make it impossible to carry on local or central government business without Welsh."

Footnote 13 : "In my opinion, if any kind of self-government were gained for Wales before recognising and adopting the Welsh language as an official language in the whole administration of the local and rural authorities in the Welsh regions of our country, she would never become an official language and the language's death would be quicker than her death under the English government."
The campaigns undertaken have often involved the breaking of the law including the non-payment of various fines and duties, the daubing or removal of road signs and the damaging of television broadcasting equipment. Certain members of the society have received prison sentences of up to two years for their activities.

The society's campaigns have received limited success on a number of specific issues and its activities seem to have coincided with a general trend in attitude in favour of the language. The 1963 "Report on the Welsh Language" stressed the importance of attitude when it stated:

"... the survival and strength of a language depend on the exercise of the general will of the community. If the community do not favour the use of the language, the government and other institutions can do little. Language cannot be imposed on people, it must be embraced voluntarily. If the general attitude towards the language is one of apathy, the language will be lost." (1963:144)

Cymdeithas yr Iaith showed their appreciation of the importance of attitude in their manifesto where they state, "Yng nghalonau a meddyliau pobl Cymru y mae'r frwydr bwysicaf" (p 44)14

Although it would seem that Cymdeithas yr Iaith campaigns have had an adverse effect on public opinion as a whole, and especially so in English speaking areas, they have had a different effect on the attitudes of older loyalists, the majority of whom are

Footnote 14: "The most important battle is in the hearts and minds of the people of Wales."
from the professional and middle classes and are sometimes in positions of authority and influence. In the face of the willingness of the Welsh Language Society to break the law and face fines and imprisonment for the language, these loyalists have become more determined and active. Whereas previously their actions consisted largely of exhortations to their fellow countrymen to speak the language and pass it on to their children, they now tend to use their influence by bringing pressure to bear on decision-making and advisory bodies connected with schools, colleges, broadcasting etc. As well as working from within in this way, these loyalists have also exerted pressure more openly through letters and public appeals in favour of the Welsh language and its culture.

A measure of the change in attitude may be gauged by a consideration of the "note of reservation" written by Professor David C. Marsh to the 1967 Gittins Report on Primary Education in Wales. Professor Marsh, Professor of Applied Social Science at the University of Nottingham and a native Welsh speaker who had spent much of his adult life outside Wales, stated that he was "surprised to find that at the first meeting of the Council, the Welsh language was seen to be of critical importance to deliberations on primary education" (p 555). His reservations at the committee's report extended as far as differences over the interpretation of facts in a way that he felt was biased towards Welsh.

It will be noticed that the language movement objectives have focussed on an increase in language functions, in the belief that this is essential for the revival of the language. The last twenty years has certainly seen a marked increase in the domains in which it is possible to use the Welsh language. In the domain of law, for instance, (cf Walters, 1979)
the Welsh Language Act of 1967 which enacted the principle of equal validity for Welsh recommended by the Hughes-Parry Report of 1965 has now made it possible to conduct the whole or part of a case in Welsh. Simultaneous translation equipment has been provided in certain courts and some contracts for sale and purchase of property and conveyances have been drawn up in Welsh.

In education, (J. L. Williams, 1973) there has been a dramatic increase in the number of Welsh medium nursery schools available and also in the provision of Welsh primary schools and streams. There are also now some eight bilingual secondary schools. It is interesting that the demand for Welsh medium education is particularly strong in anglicised areas. Certainly, schools will be established initially through the efforts of local Welsh speakers who are predominantly from the professional classes. Once established, however, they tend to attract the support of other local residents, who for varying reasons, wish their children to learn Welsh.

It is interesting to note this favourable attitude on the part of the academic, professional and more middle class sections of Welsh speaking society. The language has become an instrument of power and it is in the interests of these intellectuals, by virtue of their being Welsh speaking, to make the language more instrumental by extending its functions.

Other sections of society are less entrenched in the language and are content to stress their identity in ways other than through differences in language. With these people, language use has tended to shrink and become restricted in function to a small number of domains (cf Clayton, 1976) such as the home, religion and personal relationships. The extension of
PAGE
NUMBERS
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the language in function to various spheres such as the legal system, affects them little and they tend to deal with various technical and social innovations in English which is the language in which initial contact with these subjects is made. It seems possible that they are willing to see the language become a fossilized symbol of certain perceived cultural differences.

Supporters of the revival of the Welsh language display a rather Whorfian view of the interrelation of language and culture (cf Whorf, 1956: 221) when they stress the importance of maintaining the language as a means of maintaining the culture.

In essence, we are seeing a fundamental shift in the nature of motivation towards language in Wales with a weakening of the integrative ties which helped maintain Welsh for so long. Bilingualism continued for centuries after ethnic and political assimilation of the linguistic community and against a background of minimal cultural differences largely as a result of the position of Welsh as the most important identification factor in the community. In an increasingly materialistic society, the instrumental motivational factor has tended to come to the fore and the spread of English has thereby been promoted. It is only very recently and in a restricted number of fields that, as we have just seen above, Welsh has achieved an instrumental importance of its own.

It is clear that basic changes in language stability and habitual usage are afoot and that there has been a move from the strict geographic distribution and clear domain differentiation which characterized Wales at the beginning of the century to a more fluid situation where groups in which English is solely dominant are more prevalent. Almost all Welsh speakers are now
bilingual and the old domain dominances have largely been disrupted.

The continuing decline of the numbers of Welsh speakers is characterized by the break up of the Welsh speaking core and the eclipse of the monolingual subgroup as a maintenance factor.

There are, however, clear conflicts and paradoxes between the numerical and social developments of Welsh. Whereas the number of speakers is in decline, the language is gaining in prestige and the social functions of the language offer greater opportunity for the generally approved use of Welsh. Speakers are now able to employ the language for a wider range of social usages and types of communication but the situation remains that the actual use of language is not commensurate with the range and number of opportunities open to it.

We shall now turn in the next chapter to consider what linguistic changes can be expected to accompany the deterioration in the Welsh demographic situation that we have outlined above.
CHAPTER 3

INTERFERENCE
We have already seen in Chapter One above that the transference of linguistic items between languages is one of the most common contact phenomena that can occur in contact situations and that the bilingual communities which are to be found in Wales are fairly typical of the kind of locus where interference is likely to arise. We must now consider in more detail the interference phenomenon itself, paying special attention to the linguistic aspects of that phenomenon and the particular form that they take in Welsh. In this respect, we shall also look at some of the work done on interference in Welsh.

We have already drawn attention to the fact that there is a quite considerable array of terminology in this field ranging through "mixing", "interference", "borrowing", "integration" and "transference". Our initial task will be to discuss the competing merits of these particular terms with a view to deciding upon a consistent terminology for the remainder of this work.

"Mixture" is a term that has been widely used, particularly colloquially and by an older generation of linguists such as Hermann Paul (1886) and Whitney (1881). Whitney, for example, maintains that where two languages (A and B) are spoken in a community, the result will be two languages (A\textsuperscript{b} and B\textsuperscript{a}) which will influence each other until one or the other prevails. The term is certainly extremely vivid but has disadvantages that led later linguists like Sapir and Bloomfield to abandon it. Haugen (1950 : 80), for instance, points out that the introduction of foreign elements implies the alteration of varieties rather than a mixture of them and that the term "mixture" implies the creation of a new entity and the disappearance of both varieties that are being mixed. Recent use of the term has, however, been made by
Carol Pfaff (1979) who uses mixing "as a neutral cover term for code-switching and borrowing" (p 295).

Haugen himself prefers the term "borrowing" as the title of his article "The Analysis of Linguistic Borrowing" shows. (Haugen, 1950). He suggests that the term can be used without regard to its popular associations. He defines borrowing in the following three steps:

1) It is axiomatic that "every speaker attempts to reproduce previously learned linguistic patterns in an effort to cope with new situations" (1950 : 81).
2) "Among the new patterns he may learn are those of a language different from his own and these too he may attempt to reproduce."
3) "If he reproduces the new language patterns not in the context of the language in which he learned them, he may be said to have borrowed from one language to another."

Thus for Haugen, borrowing is the attempted reproduction in one language of patterns previously found in another.

Weinreich (1953) on the other hand, objects to the term "borrowing" on the grounds that it is an oversimplification. He equates it with the addition of items to an inventory and quotes Vogt (1949) as saying:

"every enrichment or impoverishment of a system involves necessarily the reorganization of all the distinctive oppositions of the system. To admit that a given element is simply added to the system which receives it without consequences for this system would ruin the very concept of system" (Weinreich, 1953 : 1)
However, the term "borrowing" and its associates such as "loanword" have a currency and naturalness which make them useful terms provided that their exact meaning is rigorously defined before use. A more serious condemnation of the terms is that their usefulness is more or less restricted to the lexical level of description and have little application in the description of importations at the grammatical level.

We have already quoted Weinreich's definition of his preferred term "interference" but it bears repetition here.

"those instances of deviation from the norms of either language which occur in the speech of bilinguals as a result of their familiarity with more than one language, i.e. as a result of language contact." (1953 : 1)

He emphasizes that the notion of interference implies the rearrangement of patterns that result from the introduction of foreign elements into the more highly structured domains (i.e. levels) of language.

Mackey (1962, 1970b) uses the term 'interference' also and defines it as:-

"the use of features belonging to one language while speaking or writing another" (1962 : 569)₁

However, he goes on to distinguish the description of interference from the analysis of language borrowing. He connects his two terms to the twin concepts of 'langue' and 'parole'. He describes 'language borrowing' as a feature of langue and as being collective and systematic and states that it has to do

Footnote 1: Page references are to the reprint of Mackey's article in Fishman (ed) 1968.
with the integration of features of one language as if they were part of another. He points out that the features involved in language borrowing may be used by monolingual speakers who know nothing of the language from which the features come. No matter how small the area concerned may be, whether a dialect, community or section of a community "a borrowed feature may be distinguished by its integration into the speech of the community" (1962 : 570)

Interference, on the other hand, is a feature of parole and, for Mackey, is to do with the varying use of imported features by the individual bilingual speaker. The degree of interference will not be the same at all times and under all circumstances. Interference may vary with the medium, the style, the register and the context of situation in which the bilingual speaker finds himself.

A different set of terms is provided by Clyne (1967) who attempts to place all the interference phenomena under a single heading which then can be subdivided. Clyne avoids the term 'interference' due to the variable treatment that it receives from Weinreich and Mackey. Clyne uses instead the term "transference" to refer to the adoption of any foreign element and any individual example is a 'transfer'. The origins of this usage would appear to lie in Weinreich's use of the term "word transfer" to refer to certain types of lexical interference (1953 : 49).

As Clyne uses the term, transference can refer to both "retroactive inhibition", i.e. affecting a speaker's $L_1$, and "proactive inhibition", affecting a speaker's $L_2$. In addition, transference can occur on various linguistic levels, for instance, morphological transference consists in the adoption of a word form but with a change in content or in the modelling of a
word on a foreign pattern. Morphosemantic transference, on the other hand, consists in the adoption of both word form and content. Again, phonic transference consists in the transference of sounds and semantic transference in the adoption of meaning without a simultaneous transference of form. Furthermore, Clyne uses the term "multiple transference" to refer to the transfer of whole stretches of speech to the other language where we have been using the term "code switching".

It is possible to present the following schematic comparison of the various terminological usages encountered hitherto. (Figure One)

<table>
<thead>
<tr>
<th>General</th>
<th>Innovative</th>
<th>Established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weinreich</td>
<td>Haugen</td>
<td>Mackey</td>
</tr>
<tr>
<td>Interference</td>
<td>Borrowing</td>
<td>Borrowing</td>
</tr>
<tr>
<td>Innovative</td>
<td>Interference</td>
<td>Integration</td>
</tr>
<tr>
<td>Established</td>
<td>Integration</td>
<td></td>
</tr>
</tbody>
</table>

(Figure One)

It would obviously be most advantageous for us to obtain some degree of uniformity in respect of the terminology which we employ although it will almost certainly be impossible to escape entirely from the various frameworks of previous authors.

As regards the general concept of the linguistic influence of one language system on another, I would basically agree with the criticism of the use of the term "borrowing" as an oversimplification and I would also argue that a similar criticism can be extended to the term "transference" as used by Clyne. As we shall
see, this influence process would certainly seem to involve far more fundamental structural change than the simple transference of linguistic items which is implied by both the terms "borrowing" and "transference". It is for this reason, above all, that I propose to follow Weinreich in his use of the term INTERFERENCE to refer to the general phenomenon of the transference of linguistic items from one language system to another.

Neither of the other terms can, however, be completely eschewed. "Transference" has obvious general descriptive application as can be seen from its use in the definition in the previous paragraph. The term "borrowing" also is useful having, as it does, a currency which makes it difficult to ignore. It is particularly useful when used to refer to the lexical kind of interference. We may therefore make occasional use of the term "borrowing" and its related item "loan" when referring to the various kinds of lexical interference. We shall, of course, bear in mind throughout the structural changes which are inherent in the interference process.

Whatever the relative merits of these various terms it is important to reiterate that the interference phenomenon should always be represented as a transference process which takes the form of a cline extending from innovation or reception to integration and establishment or rejection. The innovatory part(s) of the cline have been described by Weinreich and Haugen as the attempts by a bilingual speaker to reproduce forms from one of his languages when speaking the other. It is this aspect of the process that also corresponds to Mackey's use of the term 'interference' itself. At the integrative end of the continuum is to be found an aspect closer to Mackey's language borrowing although the definition which he gives would seem to be
more of a state than a process, referring to the result of the process rather than the process itself.

It is the continuous nature of this process that causes our most serious problems of description. How, for instance, are we to decide whether a particular example of the interlingual transference of an element is to be considered integrated (i.e. an established borrowing) or innovatory. It can certainly be safely said that it is not possible to specify a point in time at which a particular form becomes integrated. Forms would appear gradually to gain wider and wider currency as they are used by more people and slowly become accepted.

Many examples of interference are difficult to identify due to the fact that the phenomenon is an historical process. As Mackey has said:

"One of the most difficult operations in analyzing the language behaviour of bilinguals is that of separating the integration of foreign elements into their code from the interference of such elements in the messages." (Mackey, 1970b : 195)

One approach to this problem is through the Saussurean synchronic-diachronic dichotomy described above. Interference obviously involves the intertwining of both of these aspects of language study. In tackling interference from a diachronic standpoint, one makes use of historical methods of language analysis such as the comparison of earlier and later states of a language and by comparing innovations with possible sources in the other languages.

On the synchronic level, one would assume that the study of interference would involve the consideration of how a 'foreign' word or construction is to be regarded in a description of a language at a given time. One Welsh example of this approach which we will describe in more
detail later in this chapter is by Watkins (1975).

The intertwining of diachronic and synchronic approaches in many synchronic analyses has often led to the postulation that the identification and description of interference phenomena is not possible without recourse to historical, i.e. diachronic, methods. Mackey (1970b), for instance, refers to what he calls the "synchronic fallacy" by which he means "the belief that one can describe a language as if at any one point in time its code were stable". He prefers to view language as an "evolving code" which is in constant motion.

Language variation and language change are important factors in linguistic evolution and in bilingual communities interference is an important aspect of these factors. Linguists attempting to describe this situation from a synchronic standpoint and viewing both languages as separate synchronic codes, are led to posit a great deal of free variation or to seek to identify individual examples of interference.

Linguists have attempted to use a number of techniques in order to identify examples of interference in a synchronic description. Stene (1945), for instance, uses native speakers' intuitions as a means of identifying loanwords. She includes in her list of loanwords "words felt by language-conscious speakers to be 'foreign'" (1945:5). It is interesting to note that it is often the case that monolingual speakers are largely unaware of examples of interference whereas polylinguals suspect them everywhere. Another technique makes uses of the fact that interference often introduces phonological elements and patterns that are numerically less frequent than native ones (cf the article by Watkins (1975) referred to above).
To date, however, analyses have been largely restricted to languages where the historical background is at least partially known, and examples of interference are frequently determined by historical means. Indeed, it seems highly unlikely that it would ever be possible to identify all the results of an historical process solely by synchronic means. For example, without reference to the historical background, frequency counts can only reveal 'structural irregularity', with continuous variation extending from the very common to the very rare. It is surely debatable how rare a pattern must be before it 'feels foreign'. Fries and Pike (1949) go even further and state that "in a purely descriptive analysis of a monolingual speaker, there are no loans discoverable or describable".

Whereas the artificiality of synchronic analysis has certain positive benefits for abstract linguistic descriptions such as those of transformational grammar, it is quite unreal when employed to provide socio-linguistic descriptions of language usage in contact situations such as bilingual communities. As we have seen, the linguistic systems in these communities are both unstable and evolving and this fact has led to difficulty in distinguishing between interference and integration and in determining where the boundary between the two lies.

We see therefore that some consideration, whether direct or indirect, must be taken of the historical background to interference in order to provide a meaningful description and analysis of the phenomenon. We have seen also that the continuously varying nature of linguistic systems in language contact situations creates great difficulties in differentiating between interference and integration.
We offer the following description of some of the less controversial aspects of the interference process. Some basic comments can be made, however, which can be said to be applicable to all aspects of the phenomenon.

All examples of interference involve the presence in the contact situation of an original pattern, be it form or construction, which we may call the MODEL. The interfering form or construction may approximate more or less nearly to the MODEL, with the approximation varying according to the interplay of the pattern of the model with that of the speaker's own language. Two kinds of reproduction in the second language are possible:

i) Forms may be IMPORTED in a form that is similar to the model.
ii) The model may be reproduced somewhat inadequately, usually because the speaker has SUBSTITUTED a pattern which is similar from his own language. Substitution is particularly likely where the patterns of the model are not present in the receiving language.

The distinction between importation and substitution is of relevance for plotting the course of interference over a period of time. In particular, there is a definite tendency for importation to become more common as more speakers become bilingual and gain a greater command over the patterns of the second, interfering language.

We now turn to a more detailed consideration of these two basic kinds of reproduction in relation to lexical interference. Although, as has been stressed time and time again, interference is a process rather than a state, it will be noted that the terminology used,
which largely follows Haugen (1950), tends to be descriptive of the results of the process rather than the process itself.

A 'loanword' or 'word transfer' is a word that has been imported with its meaning into another language and has undergone varying degrees of phonetic change. A number of important variations should, however, be noted.

(A) a 'hybrid' is a loanword which has been analyzed by the recipient speaker into its component parts, some of which have been imported and others substituted with native equivalents. This type of phenomenon would seem to suggest the existence of a 'morphological substitution' similar to 'phonemic substitution' but independent of it. In some instances indeed it is difficult to differentiate between a 'hybrid loan' and an example of a native innovation involving a foreign stem and native suffix or vice versa. A possible example of a 'hybrid loan' in Welsh, which also displays the problems of differentiation outlined above, is to be seen in the word 'talment' which corresponds to the English word "payment". The Welsh word which is based on the stem 'tâl' (= 'pay') is an obvious potential hybrid loan. More doubtful is the word 'paratoians' ("preparation") (cf Charles, 1971 : 123). This word, which is based on the stem "paratoi-" (= 'prepare') looks more like a native innovation, involving as it does a different suffix from the corresponding English form.

(B) a 'loan translation' or 'calque' is similar to a hybrid loan in that the loan is analyzed by the speaker into its component parts. Here, however, all the components are substituted with equivalent native elements. The result is the importation of a particular structural pattern, consisting of a combination of a
number of elements into a compound expression, the meaning of which is not derivable from its separate constituent parts. Examples given by Haugen comprise the French "presqu'île" on the pattern of Latin "paeninsula" and French "gratte-ciel" on the basis of English "sky-scaper". A learned example in Welsh is provided by the little used "pell-ebr" on the basis of the Greek stems of "tele-phone". This word has now been replaced by the loans "ffôn" and "teliffon".

(C) a 'semantic loan' involves no formal structural importation of elements but merely an extension of meaning in line with a similar semantic field in the model language. The substitution of phonemic shape is here complete. A likely example of this in Welsh is the extension of the meaning of the word "caled" to cover "difficult" as well as its original meaning "hard".

Loans may therefore be divided according to the extent of morphemic substitution i.e., whether it is absent, partial or complete. Complete morphemic substitution obviously precludes any phonemic substitution, but within morphemic importation there may be a division according to whether there is more or less phonemic substitution. A number of groups emerge based on the relation that is found between morphemic and phonemic substitutions:

(a) Loanwords: these have morphemic importation without morphemic substitution. The morphemic importation may be further classified according to the degree of phonemic substitution. These are by far the most common type of lexical interference to be found and among the thousands of English loanwords in Welsh are the following: - bwrdd ('table' < board) papur (paper), carped ('carpet'), lamp ('lamp') plât ('plate') etc.
(b) Loanblends: these examples of lexical interference involve both morphemic substitution and importation. As all substitution involves a certain degree of analysis of the model, only hybrid loans involving a discoverable foreign model are included here.

As a further variation here, in addition to substituting native sounds and inflexions, speakers may include all or part of a native morpheme. Where the suffix is meaningless, we have a 'blended stem'; a 'blended derivative' results from the substitution of native suffixes for foreign ones. 'Blended compounds' result from the substitution of one or both parts, often when the substitute and foreign form are similar in sound. The most common of these blends are the blended derivatives examples of which in Welsh are to be found in the frequent substitution of "-wr" for "-er" e.g. "ffermwr" "farmer". This substitution is clearly facilitated by the similarity in sound.

(c) Loanshifts: these examples of lexical interference show morphemic substitution without importation and include both 'loan translations' and 'semantic loans'. They appear in the recipient language solely in the shape of functional shifts in native morphemes and may only appear as changes in the usage of native words. Differentiation may be made here between a 'loan homonym', where there is no relation between the old and the new meanings whereas in a 'loan synonym' there is an overlap between the two.

A further distinction may be drawn between 'semantic displacements' where native terms are used for new cultural phenomena that are similar to something in the old culture, and 'semantic confusions' where native distinctions are blurred or obliterated through what may be termed 'interlingual synonymity'.
other words, if two words in the recipient language have the same semantic field as a single word in the donor language, there will be a tendency for the two recipient words to become confused and one of the two may be lost, particularly if there is any kind of phonetic similarity between the donor language word and one of the recipient words.

This last situation may be represented diagrammatically as follows:

Donor Language

<table>
<thead>
<tr>
<th>a</th>
<th>1</th>
<th>a</th>
<th>2</th>
<th>a</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>b1</td>
<td>or</td>
<td>b1</td>
<td>or</td>
<td>b2</td>
<td>or</td>
</tr>
</tbody>
</table>

Recipient Language

Examples 1 and 2 can be seen to be semantic confusion without lexical transference whereas Example 3 is semantic confusion with lexical transference.

A similar diagrammatic representation can be produced for semantic displacement which can also be with or without lexical transference.

Donor Language

<table>
<thead>
<tr>
<th>a1</th>
<th>a2</th>
</tr>
</thead>
<tbody>
<tr>
<td>b1</td>
<td>bii</td>
</tr>
</tbody>
</table>

Recipient Language

<table>
<thead>
<tr>
<th>a1</th>
<th>a2</th>
</tr>
</thead>
<tbody>
<tr>
<td>b1</td>
<td>bii</td>
</tr>
</tbody>
</table>

These diagrams are, of course, much idealized.

A variation of semantic confusion may be termed 'semantic elaboration'. Here a unitary semantic field in the
recipient language is amended to conform with a more elaborate distribution in the donor language. Diagrammatically, this is as follows: -

<table>
<thead>
<tr>
<th>Donor Language</th>
<th>Recipient Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>a1, a2</td>
<td>b</td>
</tr>
<tr>
<td>a1, b</td>
<td>a2</td>
</tr>
</tbody>
</table>

That is to say, the elaboration may be achieved by varying degrees of transference and semantic restriction (Examples 1 and 2), native innovation (Example 3), or transference (Example 4).

It is not possible to over-emphasize the importance of the influence of the semantic aspect of language in lexical interference in particular. This may be illustrated on two levels. On the one hand, people will tend to borrow things, techniques, processes and so on from another society. What is actually transferred from one society are what Halliday has termed "thing-meanings" (1975 : 76), namely the ideas about these things and processes. Frequently the names of these borrowed items will follow in the wake of these "thing-meanings".

The second level has to do with what Whorf has called "fashions of speaking", that is to say a particular way of expressing things which reflects the way speakers see the world, (Whorf, 1956 : 158). I would argue that a long period of language contact is highly likely to lead eventually to a common way of looking at the world. In these circumstances, it is clearly difficult for bilingual speakers to maintain completely different
fashions of speaking in each of their languages, especially if the two languages are not sharply differentiated as to their functional distribution in the community.

This is certainly the case for the majority of bilingual speakers in Wales where the two strands of semantic influence are to be discerned. Firstly, semantic fields are tending to become more alike as between English and Welsh, both through the introduction of individual examples of lexical interference and through loanshifts. These two phenomena are both indicative of and instrumental in the cultural assimilation between the two communities.

The semantic field of colour terminology bears closer inspection here and reveals the different historical layers of interference both from Latin and English that have taken place over many centuries. The basic Celtic pattern present in Welsh consists of the six basic colours - gwyn (white), coch (red), glas (blue/green), melyn (yellow), llwyd (brown/grey), du (black). Terms for intermediate colours would be formed by combining two of the above colours, e.g. cochddu, melyngoch.

Early interference from Latin led to the addition to the basic system of porffor (purple) and gwyrd (green). Early influence from English brought further changes, in the shape of the words brown, pinc and oren (orange). All these changes were, however, additions to the basic colour system, involving a more detailed subdivision of the total semantic field together with a restriction of the semantic scope of some native terms (e.g. 'glas' and 'llwyd') in line with a fuller and more detailed system in both of the other languages.

Recently, however, interference in the field of colour terminology has displayed a different trend including
the adoption among some speakers of the forms "blw" (blue), "grîn" (green) and "ielo" (yellow) in place of the corresponding basic terms. "Blw" and "grîn" are particularly interesting in this respect as they cover an area of the colour semantic field that is traditionally divided differently in both English and Welsh. The term 'glas' in Welsh covers a wider and rather different range than the corresponding English term ('blue'), being used, as it is, to refer to the colour of trees and other living plants and therefore overlapping with the semantic field of the English term 'green'. In Welsh, the term 'gwyrdd', a borrowing from Latin of course, covers the remainder of the semantic field represented by 'green' in English. The adoption of the English-based terms 'blw' and 'grîn' in Welsh would seem to be an attempt to deal with a rearranged semantic field in this area. The importation of two new terms in this manner would seem to be a very common strategy in these kinds of circumstances where there is limited interlingual semantic conflict, as compared with either the semantic shift of the two native terms or alternatively the semantic shift of one of the native terms and the complementary importation of a foreign one.

The second strand of development is to be seen in the way in which speakers of Welsh have begun to base their sentences on some English patterns of formation. An initial development was for individual Welsh items to be substituted in these patterns as, for instance, in the common verb and particle constructions in English in phrases such as "rhoi i mewn" (to give in), "rhoi lan", (to give up), "gweithio allan" (to work out), "torri lawr" (to break down), "marw allan" (to die out) etc.

Latterly, however, there has been a marked tendency among some speakers for what may be called "holophrastic interference" where English phrases are imported as
whole units. Take, for example, the following sentences:

"Mae hi' n very senile" (She's very senile)
"Geso' i rousing reception" (I got a rousing reception)
"Mae'n gweithio mewn big engineerin firm" (He works in a big engineering firm)

Obviously this type of interference could equally as well be construed as an example of code-switching, that is to say as a complete switch to the second language. In these instances, we may argue that code-switching is being used as a rhetorical device to bring added emphasis to the phrases involved. As we have seen above in connection with the work of Pfaff (1979), the distinction between interference and code-switching is in any case extremely blurred leading her to suggest the use of the neutral term of "mixture" for all transference phenomena.

Certainly, this holophrastic interference is most common in the terminal "language death" situation and would seem to suggest that a co-ordinate bilingual speaker's two languages are more closely connected than is generally supposed, perhaps even forming a single linguistic code that is realized as two distinct languages in much the same way as a single language may be realized as a number of different registers. In addition, as a member of a speech community which is almost entirely bilingual, there is no compelling reason, for a bilingual speaker, especially the less well educated, to keep his two languages strictly, and in Welsh terms, to Welshify the English terms, phrases or constructions he may use. Indeed, it has been argued (Jones, 1973 : 125) that "proper" Welsh is now no longer "ordinary" or "basic". In less educated company, even the well educated Welsh speaker may tailor his speech to his audience and use English words and expressions. In effect, the use of truly Welsh words and expressions has,
in these circumstances, taken on various socio-linguistic overtones both as to the educational background and social standing of the speaker concerned and his attitudinal response to a particular situation.

Not only is the nature of interference affected by the nature of the bilingualism in the individual as between co-ordinate and subordinate bilingualism but also by the degree of bilinguality prevalent in the community. Three stages of interference can be distinguished in this respect which are usually chronological but are not necessarily so.

1) Pre-bilingual: Here, interference will usually occur in a small bilingual group and from there will spread to the monolingual majority. There will tend to be a large amount of phonological substitution, particularly among the majority group, as individual examples of lexical interference enter, and it is likely that certain sounds or combinations of sounds which may prove difficult will tend to be substituted erratically.

2) Adult Bilingualism: A growing knowledge of the model language leads to more regular and systematic substitution including phonemic redistribution, that is the use of familiar sounds in new positions. This growing knowledge also leads to a greater likelihood of importations.

3) Childhood Bilingualism: As bilingualism becomes more prevalent in the community, and learned by groups of speakers at an earlier age, importation, both phonetic and lexical, becomes much more characteristic.
However, unless an individual example of interference is used by quite a number of speakers, it will, of course, have very little currency. In other words, a single example of interference does not make an established borrowing. Innovations may be institutionalized by a process which has been called "petrification" in semantic studies (Leech, 1974: 226). As soon as any innovatory example of interference is employed regularly on a particular occasion, it is ready for use again by the same person or by others as a ready item which can be incorporated in further utterances. Furthermore, the more frequently it is used, the more likely it is to solidify or become established as a fixed item or expression, which native speakers will presumably store in memory rather than borrow anew on each occasion that it is used. Solidification, then, is a natural consequence of the normal use of language.

The varying factors which affect both the form and the status of an item of interference in the community mean that a borrowed item may be liable to some considerable variation. As the community passes through the three different stages of bilingualism outlined above, an established loan may be subject to continued interference from the model. This is the phenomenon which is known as REBORROWING. Differences of phonological or morphological importation or substitution may be observed over a period of time. Compare, for instance, the Welsh "clyfar" [kʰlɛVAR] from English "clever" [kʰlɛVə] which has recently tended to be reborrowed as [kʰlɛVAR] or [kʰlɛVə]. Similarly, the original loan "crwstyn" [kʰɾastɨn] from English "crust" has recently become [kʰɾastɨn] in certain dialects.

As speakers become more literate in the model language, SPELLING provides a further source of influence on the borrowing process. Pronunciation may vary here from the native value of a sound in the model language to the
normal value given in the borrowing language to the letter representing that sound. This is especially likely if a particular word has come to the borrowing language in a written form.

One means by which the store of loanwords may be increased in the borrowing language is through SECONDARY CREATIONS as a result of productive processes at work in the native language. These will include a borrowed form but will not necessarily be based on a foreign model. Haugen (1950) calls this 'Reverse Substitution' and dubs the compounds thus formed 'Hybrid Creations' to distinguish them from native creations. Ultimately, they do not form part of the interference process but involve innovations on a foreign base and comprise evidence that borrowed material has fused into the native system. Examples of secondary creations in Welsh include the word 'anlwc' which means "bad luck" which consists of the negative prefix "an-" and the borrowed root "lwc" (literally = "unluck"). Also included here is the word "busnesa(n)", a verb meaning "to meddle in other people's business" and which consists of the borrowed root "busnes" (from business) and the verbal suffixes '-a' or '-an'.

In general, examples of lexical interference of all kinds must fit the grammatical structure of the borrowing language if they are to be incorporated in it and adjustments are made where there are differences between the two language systems. There is often a clear tendency, for instance, for loanwords to be assigned to a particular gender or verb or noun class and inflexions will sometimes be lost if they occur in the model language but not in the borrowing language.

It would seem that some linguistic patterns are likely to be more open to interference than others. The more formal and highly structured parts of a language system are likely to be freer from foreign influence.
Whitney (1881) set up a scale of these various linguistic patterns according to the probability of their being involved in the interference process. At the top of his scale came nouns as the items most likely to be involved in interference, followed by the other parts of speech, then suffixes, inflexions and sounds. Examples of interference in the latter classes are unusual and are secondary to lexical items. Whitney states:

"The exemption of grammar is not an isolated fact - the grammatical apparatus merely resists intrusion most successfully, in virtue of its being the most formal part of language. In scale of difficulty it occupies the extreme place." (Whitney, 1881)

Thus, all linguistic features may be transferred between languages but they are distributed according to their resistance to transference along a 'Scale of Acceptability' which is correlated to the structural organization of the recipient language. That some features are less likely to be affected may be explained by the fact that they are more habitual and subconscious, having been established in childhood. Vocabulary items, on the other hand, are less entrenched and are invariably added to throughout the speaker's life.

Before turning to a consideration of the work that has been done in this field in connection with Welsh, we must consider briefly what structural effect the interference process may have on a language. If it is true, as we have stated above, that the more structured features of language are less likely to be transferred, then it seems likely that in the majority of cases structural effects will be minimal, except in the lexicon where foreign patterns may predominate. Depending on the degree of penetration, loanwords may lead to a certain instability in the vocabulary,
especially in connection with such items as gender and number. The fact that loanwords will generally be assigned to a particular class of gender, number etc., means that that class will be strengthened at the expense of others. This, in turn may affect the productivity of various class affixes and some foreign affixes may be introduced, become associated with a specific class and become productive in their own right. Compare, for example, the English plural affix {-s} which has been introduced to Welsh and has now begun to replace some native endings with certain speakers.

On the phonological level, the structural effects of interference would usually involve a certain amount of Phonemic Redistribution whereby irregularity in the distribution of a phoneme is regularized or gaps in the use of phoneme sequences is filled. In many respects, this type of redistribution is similar in essence to the semantic shifts which are to be found in lexical interference. Phonemic Importation is also possible but not as common as Lexical Importation.

Footnote 2: So in Welsh, all new loanwords in Welsh tend to be assigned to the masculine gender unless the sex of the object involved contradicts this. Previously, the phonological structure of a word would also play an important role in this assignment in recognition of the salience that earlier vowel changes had given to certain vowels in this respect i.e. \[u, i\] tended to be associated with masculine forms and \[o, o, e\] with feminine ones (cf below p 108).

Footnote 3: It can happen, however, that it is very difficult to ascertain whether phonic interference has introduced a new sound/phoneme or merely facilitated a native development. So with the introduction of the phonemes /ʃ/ and /dʒ/ to Welsh which may well result from the palatalization of [s] and [d] respectively in the presence of the close front vowel [i] or approximant [ʒ].
Language systems would not seem to permit interference to such a degree that their basic structure would be drastically altered. There would, in fact seem to be some point in the interference process when these systems are incapable of achieving homeostasis and are replaced by more stable and viable systems. As Sapir commented in 'Language':

"Language is probably the most self-contained, the most massively resistant of all social phenomena. It is easier to kill it off than to disintegrate its individual form." (Sapir, 1921 : 206)

Some Studies of Interference in Welsh

Before passing to a consideration of those studies of interference which are of most interest to us, namely studies of English interference in Welsh, I propose to take a brief look at the approach of those studies which relate to an earlier period of interference in Welsh, that is that emanating from Latin. There are two major studies relating to this field.

In his book "Yr Elfen Ladin yn yr Iaith Gymraeg" (The Latin Element in the Welsh Language), Henry Lewis (1943) discusses the nature of lexical interference from Latin on the basis of the phonetic developments which are displayed in it. For instance, he demonstrates (1943 : 6-7) how the long open vowel [a.] in the penultimate syllable of Latin words becomes [au] in the resultant monosyllabic words after the loss of final syllables and [ɔ] in final Welsh syllables. So, Latin 'fäta' (fate) becomes Welsh 'ffawd', 'Märtem' (March) becomes 'Mawrth', and 'cäseus' (cheese) becomes 'caws' whereas 'parätus' (ready) becomes 'parod', 'peccätum' (sin) becomes 'pechod' and 'altäre' (altar) becomes 'allor'. In this way, Lewis provides details of all the regular sound developments which characterize lexical interference from this source.
Lewis' method is, therefore, typical of the historical, neo-grammian approach to language.

A rather different approach is displayed by Kenneth Jackson in Chapter 4 of his book "Language and History in Early Britain" (Jackson, 1953, : 122-148). In this chapter entitled "The British Latin loanwords in Irish" he draws some important parallels between the effects of Latin on Irish and on Welsh, and also bases his description on a radically different standpoint from Lewis. Jackson starts from a fuller consideration of the historical background to the borrowings, based on the fact that the majority of Latin borrowings were not made into the Welsh or Irish languages direct but into their immediate linguistic ancestors, namely British and Goedelic Celtic, in the third, fourth and fifth centuries A.D. Jackson is therefore able to place items of Latin interference in their correct relation to native linguistic developments in the two languages. He is also led to draw some conclusions as to the nature of the Latin dialect from which the items of interference have emanated. In particular, he argues that this is a dialect of Latin which has itself been subject to considerable interference from the Pre-Welsh Celtic language of Roman Britain. While this fact is largely of interest only in relation to Latin interference in Welsh, it is of vital importance in explaining the form of many examples of interference in Irish.

We now turn to a consideration of a selection of those previous studies of English interference in Welsh that have been made to date:

Parry-Williams here presents a comprehensive historical study of lexical interference from English to Welsh, some dating from the very earliest period of contact between the two languages.

After a general introductory chapter, Parry-Williams splits his study into two historical sections:

i) Borrowings from Old English.

ii) Borrowings from Middle and New or Modern English.

The smaller body of lexical interference associated with Old English is dealt with in Chapter Two of the book on the basis of the various sound changes involved. The Middle and New English data, on the other hand, is split into three sections, with Chapter Three dealing with the vowel changes. Chapter Four dealing with diphthongal changes and Chapter Five dealing with consonantal changes.

Parry-Williams approaches his subject in terms of the phonemic substitutions to be found in lexical interference. The data is arranged according to the sound changes involved, giving the original English model and the corresponding Welsh replica. Lexical examples that exhibit the changes are listed normally in traditional Welsh orthography, although individual examples may be given in the form in which they occur in the manuscripts. Parry-Williams also generally provides a suitable translation, the original English form from which he assumes the borrowing derives and reference to examples of the words from a large number of manuscripts and books. He is also ready to cite possible alternative sources for certain examples and to use modern dialect material to illustrate his points.
In his introduction, Parry-Williams states that he has attempted to follow Sir John Rhys' desire for an "exhaustive and classified list" of loans (Rhys, 1908). He further states that he himself has tended more towards the 'classification' aspect of this wish rather than towards 'exhaustiveness'. He also hopes to throw some light on the interrelations between the two communities that led to the contact and facilitated the interference.

In a particularly interesting section, (1923: 5-11), Parry-Williams traces the often ambivalent attitudes of Welsh writers to English interference over the centuries. Examples of interference were frowned upon by the early Welsh bards but were widely used by some of the later court poets or "Gogyfeirdd" in their satirical verses as early as the eleventh century. According to the author, this fact suggests that even at that time English words were already finding their way into colloquial speech in considerable numbers.

Many of the later writers on the Welsh language and its literature were evidently opposed to the indiscriminate adoption of foreign words into native speech. Simwnt Vychan (16th Century), for instance, criticizes poets for introducing English elements into their vocabulary but Gruffydd Roberts (1567) in his Welsh Grammar advocates borrowing if no suitable words can be found in Welsh.

A rather different attitude is found among other writers such as Theophilus Evans and Lewis Morys, who agree that some words come from English, but not all those that appear similar in the two languages are in fact borrowings.
"Ond camsynnied er hynny yw tybied mai oddi wrth y Saeson y cawsom ni yr holl Eiriau sy o'r un sain ac ystyr yn ein hiaith ni a hwythau." (Evans 1716)

Similarly, Lewis Morys (1763) states:

"Shallow dabblers in Etymology run with the stream and attribute every word: that sounds like English to be a corruption, or borrowed from that language."

Both writers go so far as to say that it is English which has borrowed from Welsh. So, for instance, Evans says:

"Canys e fu'r Saeson amryw Flynyddoedd yngwasanaeth yr hen Frutaniaid cyn iddynt yn felltigedig droi yn Fradwyr yn eu herbyn : Ac yn yr ysbaid hwnnw y mae'n naturiol i gredu eu bod yn benthycio gan eu Meistrial." (Evans 1716)

John Morris Jones (1898) strikes a different and more modern note in his introduction to an edition of the eighteenth century classic by Ellis Wynne, "Y Bardd Cwsc" (The Sleeping Bard). Here, he shows how weak the purists arguments are and how necessary it is for a living language to borrow and develop.

In another section of his introductory chapter (1923: 11-15), Parry-Williams describes the various different periods of borrowing. In addition, he points out that many borrowings have not survived in Welsh, and, perhaps

Footnote 4: "But it is a mistake to imagine that we have taken over from the English all those words that have the same sense and sound in our language as in theirs."

Footnote 5: "For the English were many years in the service of the old Britons, before they accursedly turned traitors against them: And it is natural to believe that during that period they were borrowing from their masters."
more interestingly, many of those words which have disappeared in English or only survive in the English dialects are still current in Welsh. Compare, for example, the words "barclod" (apron) from the Old English "bearmclēp" (Middle English "barmcloth") and "llidiart" (gate) from Old English 'hlidgeat' which later became "lidgate". There are also some interesting examples of semantic development with Welsh retaining the older meanings of a word e.g. "sad" = 'firm', 'steady' in Welsh.

Finally, Parry-Williams lists some of the features that may have influenced the form of lexical interference. These include the presence of foreign sounds, unusual phonological positioning or clustering, unusual positioning of the accent, folk etymology, or change by analogy with morphological changes in the recipient language.

The next studies of interference in Welsh to be considered comprise a series of articles by the American linguist R. A. Fowkes.

R. A. Fowkes (1945) English Idiom in Modern Welsh.

Fowkes, admitting vocabulary to be the most patent locus of borrowing, attempts to show that idioms are also susceptible to transference.

Fowkes discusses three examples which display different degrees of patency in idiomatic interference.
a) "dreifio car" (to drive a car). Here both the unit and its components are taken from English and comprises little more than a particular collocation of loan words.
b) "allan o lwc" (out of luck). This is a word for word translation of the English phrase and includes one borrowed form.
c) "syrthio mewn cariad" (to fall in love). This is a word for word translation which includes no English borrowing.

Fowkes takes his examples from essays, fiction, drama, criticism and journalistic writings dating from 1905 to 1940, giving a cross-section of twentieth century Welsh literary prose, with some examples taken from the more colloquial parts of these writings. In all he gives forty-six examples, together with a translation and explanation.

R. A. Fowkes (1948) Prosody in the influence of English on Welsh. In this article, Fowkes attempts to show that there are striking rhythmic and metrical resemblances between English and Welsh in many cases, with assonance and rhyme playing a simultaneous role. Some of these examples owe their similarity to borrowing but many do not, although they may have become prevalent because of the similarity. Examples given include "y ffafith oedd.." ('the fact was..'), "wrth gwrs" ('of course'), "mwy na thebyg" ('more than likely'), gyda llaw" ('by the way'),

Footnote 6: The word "car" is, in fact, an interesting example. This word meaning "motor vehicle" is homonymous with a native word meaning "frame" (cf, for instance, "car dillad" = 'clothes horse'). The native word 'car' is in fact cognate with English "horse" and Latin "currus" (chariot) from the Indo-European root *kṛs-. The English word 'car' is itself a borrowing from Latin "currus". It could be argued that Welsh "car" (motor vehicle) involves a semantic extension of the native word but it seems much more likely that it consists of a recent lexical transference.
"...o'r gloch" ('... o'clock). These examples have the same numbers of syllables in both English and Welsh versions and the same distribution of stress.

Fowkes further suggests that there may be more involved than rhythmic agreement and that phonetic similarity may play its part. He cites, for instance, examples such as "yr holl beth" ('the whole thing') and "rhydd o" ('rid of'). Phonetic similarities may also affect meanings as in a word like "fforddio" which originally meant 'to guide' but which has now changed its meaning under the influence of the English 'to afford'. Welsh words may therefore change their meaning when associated with English words of similar phonetic shape.


Fowkes here attempts to account for differences in gender between Old English words and their borrowed equivalents in Welsh. Whereas Old English had three genders (masculine, feminine and neuter), Welsh had only two (masculine and feminine) and therefore the assimilation of the neuter gender was inevitable when transferences were made to Welsh. However, there are also cases of words moving from masculine to feminine and vice-versa.

Fowkes explains these in terms of certain vowel changes which occurred in Welsh and which tended to make 'certain' vowels characteristic of a particular gender. These sound changes established differences in gender association between [u/u] and [i/i] in masculine words on the one hand and [o/o] and [e/e] in feminine words on the other. The presence of these vowels tended to attract words to the associated gender. Thus "betws", a masculine word in Welsh, corresponds to "bed-hus" which is neuter in Old English. Similarly, "offrwm" (masculine)
corresponds to Old English 'offrung' (feminine), "bord" (feminine) to Old English 'bord' (neuter) and "fforrd" (masculine) to Old English 'ford' (masculine).

Borrowings are here cited in their modern forms and Fowkes points out that we cannot be certain whether they were transferred in their present gender or whether assimilation occurred later. Indeed, a process of change may still be going on with some words where gender still tends to vary now.

Fowkes points out finally that the system is reversed in modern borrowings where English has virtually no gender distinctions whereas Welsh has retained two genders. Modern English borrowings tend to be assimilated overwhelmingly to the masculine gender in Welsh, unless this contradicts the actual sex of the referent.


In his interesting article, Charles outlines the effect of English influence in terms of lexical interference on one particular Welsh dialect, namely that of North Pembrokeshire. He points out the special nature of interference in the dialect and his brief introduction seeks to account for this in terms of the special circumstances of influence with which the dialect is faced.

In particular, there was the early conquest of the southern part of the county and the wide-scale settlement there of large numbers of immigrants from the West Country. Charles postulates the presence of a bilingual belt between the two regions which would have facilitated the absorption of considerable numbers of English dialect words. The local trade centres of Haverfordwest, Pembroke and Tenby must also have played
their part in this influx. Charles points out that the English element formed a strong feature of Pembrokeshire Welsh even before the recent advent of English lexical interference in Welsh in general.

In compiling his word list, Charles draws heavily on his own knowledge of the dialect and that of friends, and also on published lists of local words, e.g. Morris (1910). His list is largely historical, only including twentieth century examples when they show local peculiarities.

His list is arranged alphabetically, using the traditional Welsh orthography to represent the data phonetically. The part of speech of each entry is noted, together with its meaning and finally the likely English source and any Welsh prefixes or suffixes that have been added. Occasionally, entries also include some examples of usage or cite a South Pembrokeshire English dialect form, if it is similar. Compare, for example, the word "Italian" which is the name for a kind of iron which is used for goffering frills which has a corresponding form in the English dialect of the south (from 'Italian iron').

Charles' exposition shows clearly the influence of local dialect usage on both the meaning and form of lexical borrowings and also the interesting semantic innovations that can take place within the dialect itself.


In this article, Jones looks at certain aspects of change in the present structure of Welsh and by placing this against a background of declining numbers of speakers, he attempts to assess the present condition of the language.
A large part of the linguistic change which is taken into account concerns the influence of English on Welsh in the areas of sounds, orthography, syntax, semantics and vocabulary and it is on these that we will concentrate.

**Sounds.** Innovations in this area include the introduction of the new sounds \[\text{t}f\], \[d_3\] and \[s\]. These new sounds necessarily call for the advent of new orthographic conventions involving one new symbol (\(j\) for \[d_3\]) and a number of different digraphs (\(ts\) or \(tsh\) for \[t_f\] and \(si\) or \(sh\) for \[s\]).

**Syntax.** Jones points here to the addition in Welsh of a particle on the pattern of the English verb plus particle where Welsh would merely have the verb alone. We have already described examples such as marw allan, and rhoi lan above but other examples involve a more idiomatic use of the verbs and often include a word for word translation from English e.g. "gwneud i fyny am.." (to make up for..).

Jones brings forward two points to assess the degree of influence here:

i) Welsh already has a similar verb plus adverb construction which can accommodate the more idiomatic use.

ii) There are restrictions in Welsh on the position of the adverb and consequently on the position of the particle. So, Welsh will permit "Mae John wedi sortio'r papurau allan" ('John has sorted the papers out') but not "Mae John wedi sortio allan y papurau" ('John has sorted out the papers').

**Vocabulary.** Jones splits examples of lexical interference into three sections:
i) improvisations: these borrowings are made on the spur of the moment and do not form part of a permanent and regular pattern of usage, as for example in "Mi roiais 'telling off' iddi" ('I gave her a telling off'). This type of lexical interference is a direct result of bilingualism, as the majority of Welsh speakers possess a more or less fluent control over English and can therefore transfer items 'ad lib' without the risk of being misunderstood. Jones states that some speakers may not be aware of the distinction between English and Welsh words which merge into a common stock. Improvisations are more typical of the uneducated speaker and are used rarely in more formal situations.

ii) established borrowings: this second group forms a regular part of the vocabulary and has a greater currency with most speakers, irrespective of educational background. Jones denies that the Welsh vocabulary has been undermined by pointing out that many borrowings of this kind are very old or form part of an international vocabulary, or that Welsh has gained further semantic distinctions through additions to its vocabulary. Some pairs of words are connected by different degrees of formality in style with the Welsh word being usual in formal settings and the English equivalent more common in colloquial settings, (e.g. cludo/cario ('to carry'), cyfaill/ffrind ('friend'), swyddfa/offis ('office')).

iii) new concepts: these tend to present problems as they are generally presented through English and become adopted in that form. Indeed it is extremely difficult for newly coined Welsh forms to achieve any kind of currency in the face of widely known, competing
iii) continued.

English forms. Many concepts can be handled in Welsh by circumlocutions but facility in English encourages imitation rather than the descriptive expression of the sense of a concept. Furthermore, as we have already seen above, there is often no practical need to 'Welshify' English terms and expressions and it may be unreal for the speaker to differentiate between English and Welsh. Only the educated speaker has the means to Welshify borrowings successfully but may not choose to do so when addressing the less well educated.


In his study of the systemic changes that have occurred in Welsh as a result of bilingualism, Watkins approaches the subject from a more purely linguistic standpoint than the writers outlined above. His study is confined to one point of the phonology of the two languages - syllable nuclei - and concentrates on the Welsh and English dialects of the lower part of the Swansea Valley.

Watkins approaches the problem from a typically structural point of view, setting out the two systems and noting the chief differences between them as likely loci of change.

He describes the two phonological systems from five stand-points, (a) Accent, (b) Syllable Length, (c) Vocalic phonemes, (d) Diphthongs and (e) Consonants. Watkins discusses these five aspects of the syllable nucleus from the point of view of interference by comparing older

Footnote 7 : Bilingualism and Systemic Change In Welsh.
borrowings with more recent ones.

The burden of Watkins' thesis is that there is a strong tendency for more recent borrowings to conform to the English pattern. With regard to accent, for instance, older borrowings tend to have a syllabic accent in line with the Welsh pattern. The accent maintains its relative position in derived words either by moving (e.g. \[pr\acute{a}kt\acute{i}s\], \[pr\acute{a}kt\acute{z}\] 'practice'-'to practise') or by the deletion of a vowel (e.g. \[p\acute{a}p\acute{e}\], \[p\acute{a}p\acute{e}\] 'paper'-'to paper'). In more recent borrowings, the English monemic pattern is followed, keeping the accent in the same position in relation to the base word (e.g. \[p\acute{a}l\acute{f}\], \[p\acute{a}l\acute{f}\] 'polish' - 'to polish', \[\acute{l}\acute{e}v\acute{e}\], \[\acute{l}\acute{e}v\acute{e}\] 'level'-'to level').

This article is important in that it gives a rough guide to the dating of individual examples of interference based on the well-attested change from substitution to importation (cf above). The method also points to those places in the system where examples of interference are likely to appear.

In conclusion, we would point out that the form which language usage takes is a function of the history and culture of a population, and modes of expression prevalent in a community convey social background as well as content. Language therefore is fundamentally social behaviour and what were previously considered social correlates of language are in fact conceptual distinctions which are usually culturally specific. There is no uniformly sharp cleavage between language and society.

These twin linguistic and social developments have led, as we have argued above, to a more central role for semantics as a necessary component of any language model and also to a consideration of linguistic features in terms of their social aspects and importance.
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This recognition of language as social behaviour leads to the need to differentiate clearly between elements within the sociolinguistic system and those social pressures outside it which have the potential of promoting language change. These latter factors include contact, migration, trade and social movement and any radical restructuring of the social system of a community along those lines leads almost certainly to linguistic change.

Weinreich (1953) has raised the questions of the sources and motivation of change, and language is viewed as a system sensitive to social forces, and modified, sometimes extensively, by them. In "Languages in Contact", Weinreich outlined both 'sociocultural factors' such as sex, ethnicity, religion and language attitudes and 'cultural' contact as potential forces affecting the nature and degree of interference. Indeed, the consideration of how sociocultural factors influence and modify linguistic systems, i.e. the mechanism of linguistic change, has become a most important theme in linguistics in general. Language, at least in one strand of linguistics, is now viewed as inherently variable and variation, which is meaningfully marked becomes regularized and serves to distinguish certain social differences. Once initiated, linguistic variations may lead to the restructuring of formal language systems.

Languages in contact often tend to provide dramatic instances of changes in language structure and use. By this means, extensive rearrangement of language structure can occur over a short period. Interference is the major type of internal linguistic rearrangement which occurs in contact situations and we have seen above the variety of changes which can occur and the importance of the semantic aspect to these. We have also seen in the two previous chapters the various social factors which underpin the interference process in the bilingual contact situation and the relevance of these social
factors to the particular example of a bilingual situation which is found in Wales.

From a sociolinguistic point of view, therefore, the pertinent question for us to ask ourselves regards the relationship between the two languages in the community. Should they be viewed, for instance, merely as the vehicle for intergroup communication in the community or as functionally structured intragroup communication. In this latter case, the question arises whether there are two separate grammars with degrees of interference or a single grammar with internal variation.

Traditionally, linguists have taken it for granted that the conditions of language use in a bilingual community are well-known and that the linguist's task is to describe and analyse the interference which takes place between the two languages involved. The result of their taking this approach, however, has been to limit the force of their arguments and to overlook the conditions of a speaker's differential linguistic behaviour which includes his attitude towards the use of varying forms including interference.

The remainder of this work will attempt to delineate to some extent the varying attitudes of speakers to the occurrence of interference in Welsh and the relevance of these attitudes to the incidence of interference in the community. To this end, we shall turn in the following chapters to a consideration of the methods which linguists have employed to measure language attitudes and to the design of suitable instruments for the measuring of those attitudes and for the measuring of the incidence of interference so that the two can be correlated.
CHAPTER 4

ATTITUDES
So far, we have been considering the interference phenomenon directly with regard to the situation in Wales. Our chief purpose, however, will be to attempt to show how Welsh speakers perceive the language, especially with regard to the interference that occurs commonly in speech. For instance, among the questions which we will wish to consider are whether interference phenomena are considered apart from Welsh and possibly to be deplored or are they considered a deplorable part of Welsh? As interference becomes more common, do attitudes become stronger and are all speakers influenced? Do speakers have perceptible attitudes towards interference and does this affect their use of interference? Also, what effect do speakers' attitudes towards the language in general have on their performance? Patently, the consideration of speakers' attitudes will be of fundamental importance in our approach to these problems and to this end we shall now embark on a review of some of the most important methods of attitude data collection with a view to obtaining a suitable model for our study of attitudes towards interference.

Although the study of attitudes has been at the centre of sociological study for some time, it is only recently that sociolinguists have turned towards the study of attitude as displayed towards language and its effect on language use, e.g. Shuy and Fasold (eds) (1973), Lambert (1967, etc.), Fishman (1968). These studies have obvious importance for many of the subjects that form the central concern of sociolinguistics, including matters such as language choice in bilingual and multilingual societies, mutual intelligibility, second language learning and the use of particular linguistic variables. The aim of this chapter will be to present both an outline and critique of the methodology employed in the study of attitude in relation to language.

By and large, most studies of language attitudes do not concern themselves with theoretical matters as to the
nature of attitudes. Rather, they all attempt to deal with problems of description and analysis. In view of this, it would seem appropriate to say something, by way of introduction, about the nature of attitudes themselves before going on to show the view that sociolinguists have of them, as revealed in their approach to description and analysis.

A number of major theoretical standpoints are to be observed in this area. Allport (1935) gives a typical "mentalistic" definition of attitude when he states that attitude is "a mental and neural state of readiness organized through experience exerting a directive or dynamic influence on the individual's response to all objects and situations with which it is related".¹ Allport here implies that attitudes are not directly observable but need to be inferred from the subject's introspection. This, of course, presents methodological problems as to how one measures in physical terms something which, by definition, has no overt substance. Others, in attempting to redefine attitude in a more measurable, mentalistic way, have characterized it as a mediating concept, directly related to behaviour or verbal response, e.g. Doob (1947), Green (1954).

The extreme "behaviouristic" position, on the other hand, locates attitude in actual overt behaviour or responses (Bain, 1928). As a result, this approach faces very few problems as regards analysis for the simple reason that it seeks to define attitude in terms of observable data. Some sociologists have criticized this approach as it has made attitude dependent upon the specific situation in which it occurs, and thus cannot be used to

Footnote 1: cf also Sarnoff (1962) who sees attitude as a disposition to react favourably or unfavourably to a class of objects.
explain other factors (Alexander, 1967).

The greatest difference between these two schools of thought lies in their consideration of attitude as either a unitary or multiple structure. Those who agree with the mentalist viewpoint also tend to see attitude as consisting of a combination of multiple components, e.g. Lambert and Lambert (1964). On the other hand, those who identify attitude with responses view it as a single unitary component (Osgood, Suci and Tannenbaum, 1957).

The components which are usually suggested in the multiple component model are as follows:

(a) cognitive or knowledge
(b) affective or evaluation
(c) conative or action.

Rokeach (1968) provides an even more complicated definition, identifying attitude with a set of beliefs, each of which is composed of the above components (see Figure 1). Fishbein (1966), however, seeks to differentiate between attitude and belief, identifying the former with the affective component and the latter with the cognitive and conative components. Few sociologists attempt to explain how this system of components fits in with their research and, in general, it is only the evaluative or affective component that is measured.

Despite this apparent conflict among sociologists as to the nature of attitude, there is broad agreement as to certain aspects of it. Most, for example, would agree that attitudes are not momentary but relatively enduring. Dashiell (quoted in Jordan, 1953), for instance describes attitude as "an enduring predisposition to act in a characteristic way, usually favourably or unfavourably, towards a given type of person, object, situation". Again, Krech and Crutchfield define attitude as "an enduring organization
Attitude Structure (Four Views) - Figure One

1. Multicomponent

(a) Attitude
   - Cognitive
   - Affective
   - Conative

   (knowledge)  (Evaluation)  (action)

   Lambert & Lambert (1964)

(b) Attitude
   - Belief 1
   - Belief 2
   - Belief 3

   Cognitive  Affective  Behavioural

   e.g. Rokeach (1968)

2. Unicomponent

(a) Attitude
   - Affective Component

   Osgood et al (1957)

(b) Object
   - Attitude
     - Belief

   Affective  Cognitive  Action

   e.g. Fishbein (1966)
of motivational, perpetual and cognitive processes with respect to some of the individual's world". As these definitions show, there is agreement that attitudes depend upon the subject's experience and intensity of feeling, (cf Allport, op cit.). They are also dynamic, usually predisposing the person to act in a certain way, either favourable or unfavourable, positive or negative towards a given object. Vernon (1953), for example, defines attitude as "a personality disposition or drive which determines behaviour towards or opinions and beliefs about certain types of person, object, situation."

From this broad discussion of the theoretical status of attitudes, we turn now to a consideration of the different views of attitudes towards language as present in the work of sociolinguists. What appears is that language attitude studies sub-divide into two groups, a dichotomy comparable to that between 'macro' and 'micro' sociolinguistics. On the 'macro' level, we have studies dealing with attitudes that are language-oriented or language-directed. These studies are based primarily on the evaluation of particular languages or language varieties as "good", "rich", "poor", "ugly", "useful" etc. Basically, these studies seek to compare attitudes to standard and non-standard varieties (e.g. Nader, 1962; Gumperz, 1964), or to study attitudes towards pidgin and creole languages (e.g. Samarin, 1966). Also included in this macro level are studies of community-wide stereotyped attitudes towards the speakers of particular languages or language varieties which are often mediated or triggered by language. Wallace Lambert may be said to be the pioneer in this field, (cf Lambert et al (1960), Anisfeld and Lambert (1964), Lambert et al (1966), cf also Labov (1966), Kimple (1968)).

On the micro level, studies have dealt with the effect of language attitudes on linguistic behaviour in the individual. In particular, they deal with language
choice and usage (Fishman, 1968; Rubin, 1968) second language learning (Ervin-Tripp, 1967; Gardener and Lambert, 1959) or views about dialect differences and mutual intelligibility (Haugen, 1966; Wolff, 1959).

William Labov has done much pioneering work on the 'micro' level with his use of attitudes towards particular linguistic forms to explain linguistic phenomena in New York City (Labov, 1966) and Martha's Vineyard (Labov, 1963). Labov shows how attitudes towards outsiders provides the motivation for distinguishing sound changes in a rural community and how attitudes towards particular forms as prestige markers may lead to the phenomenon known as 'hyper-correction' among members of the second highest class in a community.

Although these two categories imply a different centre of emphasis, they do overlap to a certain extent, with attitudes towards languages extended to their speakers, and the choice of code in a bilingual setting dependent upon the social significance of a particular variety. In addition, the use of particular linguistic variables is dependent upon the social significance of the variety with which it is identified.

As we are interested in the main with the methodological aspects of language attitude studies, it is to these now that we turn. Language attitude studies are devoted, as we have seen, to a wide range of subjects but it will be found that different data gathering techniques are used in all areas of language attitude study and that individual techniques are not confined to specific areas of study. For the most part, the questionnaire has proved the most popular technique for the elicitation of attitudes. Another technique which is becoming more and more popular, especially in connection with the study of social stereotypes, is the Matched Guise Technique as it has been developed by Wallace Lambert.
and his colleagues. In addition, many attitude studies have made use of various kinds of scales and weighted measures. Among those which are to be discussed below are the Thurstone-type scale, the semantic differential scale and the commitment measure as used by Fishman (1968). Not only are these techniques not confined to a particular type of attitude study, but they need not necessarily be used independently of each other either. One attitude study may employ a number of the different techniques described below.

The Questionnaire

The questionnaire has been developed mainly by social scientists to a high degree of sophistication. In attitude studies, the majority of questions posed are of the open type: "what do you think of...?", "How would you react to...?", which hopefully allow the subjects freely to express their opinions about the central theme without any lead from the question itself. Other attitudes may also be displayed unexpectedly in answering such questions.

Open questions of this sort, however, have certain disadvantages which have to be taken into account. In the first place, subjects may not answer as freely as they might due to the effort and time involved in writing down their answers. In an interview, of course, a subject can discourse at length without this worry. The subject's relative ability or aptitude vis-à-vis talking and writing are important here, of course. Secondly, subjects may fail to focus on the required topic and in many cases, it is extremely difficult to analyze and compare the answers given by different subjects. As a result, researchers may restrict their use of open questions to pilot studies in order to isolate specific areas of interest and use closed questions for collecting the final data.
In closed questions, the answer is usually one of a set of alternatives which may differ in number. Subjects are asked to choose their answer from a scale which is placed after each question. This scale may consist of a simple Yes/No response or may have a number of graded items. Closed questions have to be constructed very carefully to ensure the relevance of the data being elicited, usually after an open-type pilot study has shown the areas of relevance.

Unlike with the open-type questions, it is impossible for the subjects to focus on the wrong material as the questions have been specially framed to allow a limited set of possible answers from which to choose. Answers are thus relatively uniform and much more easy to analyze and compare. There are, however, inevitable problems with this type of question also. In particular, care must be taken that questions are not framed in such a way as to make one specific answer inevitable. The list of answers must also cover all possible options. Subjects may become bored if the answers are relatively simple, and as a result, their answers may become mechanical and they may give little serious thought to each question. On the other hand, if the questions are quite complicated, subjects may find answering tedious.

In another type of questionnaire, a role-playing element may be introduced. Here, subjects are asked to imagine themselves in various situations where they are playing specific roles (cf Bogardus, 1925). Recently, such questionnaires have tried to include items based on those factors which influence everyday behaviour, such as how factors of topic, person, etc. affect language choice (cf Ervin-Tripp, 1964; Greenfield and Fishman, 1968).

An interesting example of the use of the questionnaire, and one which is of particular relevance to us, is
provided by d'Angelan and Tucker (1973). They decided to use two different measures in an effort to validate their findings. One of the measures they chose to implement was the questionnaire. This consisted of about forty closed-type questions on a variety of subjects. The questions attempted to probe the subjects' awareness of regional and social dialect varieties, their opinion of the importance of language as a factor in social and academic advancement, their attitudes towards their own speech style and that of people from other classes and regions and their awareness of language change and their willingness to accept systematic attempts to standardize their language. Here, subjects were questioned as to whether language stays the same or changes, and were also asked to suggest what forces might cause language to change. They were asked whether it was desirable or possible to influence the natural development of language and whether the language they spoke (Canadian French) was in need of improvement, and if so, which particular linguistic items were most in need of restoration, and who, if anyone, should effect the change.

To conclude, the questionnaire is little more than a formalized version of the interview which enables researchers to question large numbers of subjects in a relatively convenient manner, and providing readily comparable data without the problems of recording that data. Questionnaires are generally considered adequate for collecting data about attitudinal criteria per se (such as political or religious attitudes). They do have certain limitations, however, with regard to some kinds of attitudes such as those relating to anticipatory behaviour. (La Piere, 1934)
The Matched Guise Technique

One of the most important techniques employed in language attitude studies is the 'matched guise technique' which was first developed and widely used by Wallace Lambert and his colleagues at McGill University in Montreal. Since the early sixties, the matched guise technique has been used in a number of well-documented studies of the evaluations of a particular language or variety and its speakers. The technique has been used primarily in four different settings.

(i) bilingual and multilingual settings involving a variety of languages e.g. French Canadian and English in Quebec. (Anisfeld and Lambert, 1964; Lambert et al, 1960)

(ii) various immigrant groups: - French in Louisiana and Maine (Lambert, Giles and Picard, 1975) and Jewish in Montreal (Anisfeld and Lambert, 1961)

(iii) racial groups: - Negro and white (Tucker and Lambert, 1969).

(iv) dialectal and accentual settings of the same language e.g. accentual varieties of English (Giles, 1971a; Powesland and Giles, 1975).

The matched guise technique is now the basic tool used to study subjective reactions towards language. The essential assumption on which the technique is based is the existence of a uniform set of attitudes towards language which are shared by the majority of the members of a speech community, irrespective of the form of language they personally use (be it stigmatized
Lambert found that these attitudes are not revealed if speakers are questioned about them directly, whether via interview or questionnaire, but that if they make personality judgments about the same speaker using two different forms of language, while unaware that it is the same speaker, their answers will show their subjective evaluations of the languages involved. Thus, we may say that if there is sufficient control of all other variables in the experiment, such as voice quality, content and personality of speakers, then this instrument will elicit the respondents' general reaction to the languages rather than their opinion of each individual speaker. Any significant uniformity of response by a particular group to a language can be seen as the stereotyped impressions of that group towards that language.

Before turning to a specific case study of the use of the Matched Guise Technique, we should consider a case problem raised by Agheyisi and Fishman (1970). They point out that in a multilingual speech community factors such as domain, topic, role and location are important with regard to switching within the speech repertoire and the functional allocation of codes. These are ruled out by the matched guise technique but should be reckoned with. They state that certain attitudes may be engendered by the lack of congruity between these factors and the code. They further cite Kimple (1968) and Cooper, Fowles and Givner (1968) as examples of how the technique should be used.

Kimple used a special adaptation of the matched guise technique (which he termed the 'Mirror Image' technique) in order to measure how bilinguals interpret the use of different languages. The technique involved the use of two different conversations which incorporated special role relationships, locations and topics. These conversations were recorded by bilinguals in each of their languages. Thus four sets
of conversations were obtained which kept the role relationships, topics and locations constant but changed the languages as follows:

(1) The conversations were recorded in each of the two languages throughout.

(2) Some role relations were performed in one language while others were given in the second language. The roles and languages were then reversed.

Four different sets of judges were then asked to judge one version each, indicating what they considered to be:

(a) the role playing relationships of the speakers.
(b) the setting of the conversation.
(c) the events of the conversation.
(d) any social content, e.g. the occupation of the speakers.
(e) the appropriateness of language usage.

Kimple's results suggest that speakers do have notions as to the appropriateness of language in certain settings.

Lambert describes his own work on the matched guise technique most fully in Lambert (1967). Lambert's experiments mostly involved French Canadian and English Canadian bilinguals in Quebec. He asked groups of listeners or judges to evaluate a series of recordings of perfect bilingual speakers reading a two minute passage in each of their languages. Listeners were kept unaware of the fact that several of the readings were by the same speaker. The judges were given trial runs and became well acquainted with both versions of the reading. Lambert found that the judges were very interested in the experiment, especially if they received
feedback on how well they had done.

Lambert states that his technique is more useful than attitude questionnaires in eliciting the judges' private reactions but work is needed to assess its power in this regard. He says that it is especially useful for revealing group biases in evaluative reactions. As regards validation of the test, Lambert found that the test was reliable when used with different judges giving the same profile of traits. However, in a test re-test situation, where the same judges did the same test for a second time, little reliability was shown.

In Lambert, Hodgson, Gardener and Fillenbaum (1960), it was shown that English Canadian (E.C.) students were strongly biased against the French Canadian (F.C.) guise and in favour of the matched E.C. guise. F.C. students of similar background were also interviewed and the researchers were surprised to find that the F.C. students showed the same bias, with E.C. guises rated significantly more favourably than the F.C. guises.

In Anisfeld and Lambert (1964), there was an attempt to trace the development of such impressions, including the age at which they begin to emerge. In a study of the reactions of ten year old F.C. children, they found F.C. guises rated significantly more favourable on nearly all traits. This was primarily due to the high scores of a group of relatively monolingual children. The remaining bilingual group showed no particular bias. Lambert, Frankel and Tucker (1966) then attempted to discover at what age after ten years the bias starts. 375 girls of varying ages from nine to eighteen were asked to give their evaluations of three groups of matched guises that consisted of (1) girls of their own age, (2) adult women, and (3) adult men. It was found that definite preferences for the E.C. guises appeared at the age of twelve and were
maintained throughout the teens. It was also found that upper middle class girls were especially biased, whereas working class girls showed less durable bias.

The technique has also been adapted to the situation in Britain, under the particular influence of Dr. Howard Giles. Some of these (Bourhis, Giles and Lambert, 1975; Bourhis, Giles and Tajfel, 1973) have involved the study of attitudes towards the Welsh language and will be dealt with below in the section which deals with attitude studies in Wales. Other studies (Giles, 1970, 1971) have involved the consideration of subjective reactions to various regional and social varieties of English.

In conclusion, it may be said that Lambert has developed a technique which elicits efficiently the stereotype impression that one linguistic group holds towards another contrasting group or towards itself. There are also, however, many important variable characteristics which affect the results of the test, including sex, age, social class background, speech style and bilinguality of both speakers and judges. The work of Kimple would seem to be a valuable advance in the adaptation of various other factors such as domain, role relationship and topic to the technique. Another fact to be borne in mind is the possibility that the subject speakers themselves may reveal their own views of a variety through their performance of it.

As regards the adaptation of the technique to the study of attitude towards interference, it is important to bear in mind two basic characteristics of the test:

(i) the technique is based on the reaction of judges to two or more guises of the same speaker.
(ii) all factors except the one about which the attitude is sought must remain constant.

It would appear that strict adherence to these characteristics would make the elicitation of attitudes towards single examples of interference very difficult, as judges would be likely to recognise different guises as belonging to the same speaker. We shall consider further below various methods of overcoming this problem in our discussion of which methods are most suitable for our purposes.

Scaled and Weighted Measures

We shall now turn to consider the types of scales and measures used by sociolinguists in their studies of attitudes. In general, these scales are used in connection with different methods of collecting attitude data, as a relatively simple and convenient way of measuring attitudes. In "The Social Stratification of New York City" (Labov, 1966), Labov uses a scale of occupational suitability together with a matched guise type experiment to elicit subjective reactions to socially significant phonological variables. Tapes were prepared of speakers who were asked to read a passage with concentrations of particular variables. From five readings by women speakers, Labov chose twenty-two sentences with different occurrences of each variable. The judges were then asked to place themselves in the position of a personnel manager and use the scale of occupational suitability to rate the speakers as if they were candidates for jobs. The jobs used in the scale were as follows: - television personality, executive secretary, receptionist, switchboard operator, salesgirl and factory worker. Thus, Labov could compare different ratings of the same speaker using different values of a particular variable.
He found that speakers were always rated higher by judges when they are heard to use a prestige form consistently.

Early work in the field of attitude study involved the need for suitable instruments for obtaining attitudinal responses to linguistic stimuli and the development of evaluation scales. One of the best and earliest approaches to the objective measurement of attitudes is L.L. Thurstone's method of 'equal appearing' intervals, (Thurstone, 1928). Thurstone devised a scale which consisted of eleven statements graded from very, very favourable to very, very unfavourable. Judges were asked to indicate which of the statements most conformed to their opinion. The Thurstone scale is based on the assumption that numerically equal changes in scale position at any point in the scale may be regarded as indicating equal amounts of change in attitude.

Osgood et al (1957) introduced a special refinement of Thurstone's scale in the 'Semantic Differential Instrument'. This uses neither opinions nor statements in the scale but instead has single words as the object of focus. Using the Semantic Differential, respondents are required to rate a stimulus or concept against a series of bi-polar adjectival scales, e.g. Standard vs Non-Standard. Between these two poles is a seven-point scale, and judges have to mark the scale according to whether they think a particular example is very, fairly or slightly standard, neither standard nor non-standard, or slightly, fairly or very non-standard. The scale appears on the page as follows:-

```
Standard |........|........|........|........|........|........|........|........|........|........|........| Non-Standard
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This technique has been developed and used extensively and successfully by Frederick Williams and his colleagues
(cf. Williams, 1973). In particular, they have developed the administration of the tests. Respondents are asked to rate stimuli independently on a scale by scale basis, so that each rating is a separate judgment. Respondents have to place a tick in the relevant boxes, and Williams finds that people of high-school age and older are usually capable of using the Semantic Differential scales with the minimum of difficulty. Further, Williams makes sure that the different scales are arranged in random order and that the polarity of the positive and negative values is also randomized. Such randomization avoids the possibility of one scale influencing another in sequence and randomizing the negative and positive values prevents judges simply checking down one column without considering each scale separately.

In addition, Williams has developed a highly sophisticated model for deciding on the adjectives to be used in the Semantic Differential scales. In Williams and Naremore (1969), scale development started by playing short segments of tapes of children from middle and low class homes (both white and negro) for some teachers and then asking them to comment on the these types of children. Comments that were given typically included probable home type, school results, best and worst subjects and academic future of these children. The teachers' responses were recorded and analyzed for the adjectives used. From the list of adjectives obtained, a prototype semantic differential instrument was developed.

Using a mathematical procedure called factor analysis, Williams inquired whether there were any clusters of inter-relationships among the different scales in the instrument. These inter-relationships are the result of respondents' using the same scales in the same way, in other words, correlated usage. If different scales
are used in the same way, it is assumed that they represent together more basic judgments than when they were used individually. Two factors stood out particularly and were labelled as basic judgmental dimensions of 'confidence-eagerness' and 'ethnicity-non-standardness'.

Williams has used this technique in a number of interesting studies. Williams, Whitehead and Miller (1971, 1972) made a study of teachers' attitudes towards dialects and their related expectation of their pupils' academic performance in the classroom. Teachers were requested to evaluate brief descriptions of children of different race and social class. The ethnicity of the teachers, the ethnicity and social class of the children, and the experience of the teachers were all taken into account. For factors of both 'confidence-eagerness' and 'ethnicity-non-standardness', there were differences between middle and lower classes, and the difference was especially marked for the black group due to the fact that the black lower class group was rated so low on both factors. Both the white groups were rated as the least 'ethnic-non-standard'. In addition, both black and Mexican-American children were rated noticeably less 'ethnic-non-standard' by black teachers than by their white counterparts. In a parallel study, the teachers also provided ratings of the labels "Black Children", "White Children" and "Mexican-American Children" without relation to status. It was hoped to elicit stereotyped impressions of each group by this means. As expected, the rating for these classless labels was equivalent to the average of the two classes for both black and white groups. However, the Mexican-American stereotype was markedly more 'ethnic-non-standard' and on the low class status level for the 'confidence-eagerness' factor. Williams suggests that these stereotypes represent an 'anchor point' from which the teachers differentiate experience in rating examples of real children. In other words, when a
person judges, the stereotype is elicited by minimal cues and further evaluations are based on divergences from the stereotypes.

In "Mental Testing", F. Goodenough (1950) defines an attitude scale as "a scale designed to show in quantitative terms the degree of favourableness or unfavourableness of regard for a specific person, group or social institution". Scales are certainly one of the easiest ways of measuring attitudes and one of the best if safeguards are taken in the choice of sentences and items to be rated. An added factor is that scales can be easily used in connection with other methods of attitude data elicitation.

Commitment Measure

A relatively new kind of instrument has been developed by Fishman (1968) which he calls a 'Commitment Measure'. This has been designed to measure the 'action' or 'conative' component of attitude. The instrument attempts to measure the respondents' willingness or commitment to perform a particular type of behaviour, without their actually performing it. The items in the measure are each composed on the pattern: "Would you agree to ....?", which are listed on a Guttman-type scale where a positive response to one item on the scale presupposes positive responses to items below it in the list. A follow-up test can look at the actual performance of particular tasks and provide validation of the commitment measure.

In "Bilingual Attitudes and Behaviour" (Fishman, 1968) Fishman realizes that he is breaking new ground, his specific interest being "to determine whether commitment items show any greater relationships to pertinent language behaviour criteria, than do more traditional dispositional or role playing language use and language
attitude items". Some 375 subjects were used in the study, of whom 80 per cent received a 64-item questionnaire and a 10-item commitment measure; the remaining 20 per cent received only the questionnaire. The commitment measure was placed before the questionnaire for half the subjects and after it for the rest.

The questionnaire included the usual background questions about age, sex, etc. and also "questions concerning the desirability of social contacts with non-Puerto Ricans, attitudes towards Puerto Ricans, attitudes towards being American, observance of everyday Puerto Rican behaviours, range of interests and use of Spanish and English". On the other hand, the commitment measure attempted to find out the subjects' willingness to maintain and strengthen the Spanish language in the community and in themselves. It included questions such as "Would you agree to participate in a small group discussion, with other youngsters of Puerto Rican origin in New York, on the topic of improving your command of the Spanish language and Puerto Rican literature?". The answers required were of a Yes/No type. If respondents had answered "Yes" to any of the questions, they were asked to write their name and telephone number in the space provided. As a follow-up, those who gave their names were subsequently invited to attend a evening of Puerto Rican songs, dances and recitations.

Fishman found that the respondents fell into six groups depending upon whether they received or did not receive the commitment measure; whether they signed or did not sign it; whether they replied or did not reply to the invitation; if they replied, whether the answer was "Yes" or "No"; and finally, if the answer was "Yes", whether they attended or did not attend the social evening. It was interesting to note that with the traditional attitude items on the questionnaire there was no significant difference between these groups,
whereas the commitment scores were significantly different, revealing a relationship between commitment scores and the extent to which the groups approached actual participation. The placing of the commitment measure before or after the questionnaire also proved significant.

Fishman concludes that his commitment measure is more useful than are traditional attitude questionnaires for measures which are to be validated against actual behaviour. This is because they approach directly the respondents' tendency to behave in a certain manner, rather than merely their cognitive or evaluative responses. With regard to the significant differences in commitment scores due to the placement of the measure before or after the questionnaire, Fishman suggests that this is the result of a greater tendency on the part of subjects to over-commit themselves when they fill out the measure before the questionnaire and perhaps a need to be consistent with previous answers when answering after the questionnaire. He suggests that this position effect could be overcome by randomizing the commitment questions and dispersing them throughout the questionnaire, rather than presenting them in one single block.

Before turning to the consideration of some case studies which have particular relevance for Wales, we shall very briefly discuss a number of general points that affect all kinds of attitude tests and will have to be borne in mind. Firstly, non-response is a problem no investigator of human population can ever escape (cf Moser and Kalton, 1971); his survey material is not, nor ever can be, entirely under his control and he can never get information about more than part of it. Secondly, it should be noted that any attempt at assessment can cause a change in attitude. When confronted with the need for a response, a person may decide to
change his mode of behaviour. Under observation, a subject may form views he considers suitable for the examiner. This may stem from the desire to oblige, the desire to show oneself in the most favourable light, the desire to shock or some other motive of the type, quite as much as from a real dislike of displaying one's own true feelings (cf. Evans, 1965). A really effective attitude test needs to be disguised as something else.

Attitude Studies in Wales

There have been a number of studies into the question of attitudes towards the Welsh language in Wales. Those which have been undertaken have for the most part been concerned with attitudes towards the position of Welsh in schools among the children and their parents, and especially in connection with the teaching of Welsh as a second language.

It was W. R. Jones who did much of the pioneering work in this field. In Jones (1949), 129 pupils were questioned in the 11-13 age group in six different forms of a secondary modern school in the Rhondda. Here, Welsh was mainly a second language. Jones found that attitudes were most favourable towards Welsh in the first year at the school but that they became more unfavourable in succeeding years. Further, the "A" streams were found to be more favourable towards Welsh than the "B" streams, and girls were found to be more favourable and less variable than boys. Children from Welsh speaking homes were also more favourable towards Welsh and less variable.

In a follow-up investigation, (Jones, 1950), Jones sought further evidence among pupils from a suburban area outside Cardiff. After questioning 211 pupils aged 11.6 to 15.6 in eight different forms, Jones found that his new findings corroborated the results of his
previous experiments, showing attitude towards Welsh growing less favourable with age.

Among the reasons offered by pupils for learning the language were the following:

i) interest in the language  
ii) usefulness of the language for jobs  
iii) the language's connections with racial and national identity.  
iv) the pupil's proficiency in the language as an academic subject in the school.

The relative importance of these reasons tended to vary to some extent, with the usefulness of the language for jobs figuring higher among older pupils.

The work of M. H. Owen (1960) also consisted of a survey of attitude towards the teaching of Welsh as a second language. Owen concentrated his study in the primary schools in the relatively anglicised area of Caerphilly. In particular, Owen wanted to look into the attitudes of parents. He quotes the Central Advisory Council for Education (Wales) in stressing the importance of attitude in the home to actual academic performance or in a specific subject.

"What happens in school is only one aspect of the much wider problem of the attitude in the community in general.... In the long run, it is the attitude of the parents that must determine that of the children."

The author attempted a full sample of primary school pupils in Caerphilly U.D.C. Test material was distributed to the parents through the children and the school became the centre of the investigation. The author attempted to treat the tests in complete confidence by allowing the parents to remain anonymous. 2,611 forms were distributed, of which 1,464 (56 per cent)
were not used. These consisted of forms not returned, those returned unanswered, those which were inconsistent and some spoiled copies. A higher percentage of returns could have been obtained if a follow-up investigation had been undertaken, but this would have inevitably sacrificed the desired anonymity.

The test took into account the following six factors in assessing the subjects' background:

i) linguistic background, i.e. the degree to which Welsh is used in the home, the frequency of listening to Welsh programmes on radio and television and of attending Welsh language religious services

ii) area of residence

iii) sex

iv) length of residence in Wales

v) occupation

vi) nationality.

The attitude part of the test consisted of a Thurstone-type rated statement test.

Owen took statements from a wide variety of sources related to the teaching of Welsh and also from a questionnaire which was distributed to a hundred adults asking them to express their opinions about the teaching of Welsh. From these sources, a list of 90 sentences was compiled covering a wider range of opinion. Forty-four selected judges were then asked to arrange the sentences into eleven groups considered to be equidistant. Neither agreement nor disagreement with the sentences was required. The eleven groups ranged from very, very favourable to very, very unfavourable.
The groups of sentences obtained in this way were analyzed using cumulative frequency graphs and median and quartile rankings, and a final scale of statements was obtained on which the parents were to be asked to mark their own attitude. A number of teachers, headmasters and ministers of religion were also asked to answer a short questionnaire.

Unfortunately, however, there seems to be some imbalance between some of the statements used in the scale. For instance, it would take far more hostility to agree with the most unfavourable statement: -

"I loathe the Welsh language, and should resist the teaching of it with all my power" (11 : 0)

than it would take loyalty to agree with the most favourable: -

"Welsh should be so thoroughly taught in primary school that the child can think in Welsh" (0 : 3)

Bearing this imbalance in mind, the results obtained from the tests were as follows: -

1. A mean attitude of 4.26 was recorded for the parents. This is the neutral span of attitude but tending towards being slightly favourable. Mothers were found to be significantly more favourable at 4.03.

2. More favourable attitudes were obtained in certain areas, notably Senghenydd and Abertridwr (3.88) compared with Taffs Well (4.58).

3. The most favourable attitudes of all were obtained in those homes where both parents spoke Welsh, and next in homes where one parent spoke Welsh.
4. Less favourable attitudes towards Welsh were revealed as the occupation of the father became more skilled on the unskilled-professional cline.

5. Those who had lived all or most of their lives in Wales were more favourable.

6. A bilingual father was more favourable to Welsh (3.38) than a monoglot English father (4.92). The same is true for mothers, though not so markedly (3.44 vs 4.31). It is interesting to note that monoglot English mothers are more favourable towards Welsh than monoglot English fathers but that the opposite is true for bilingual parents.

The above results serve to show the importance of linguistic background and length of residence in Wales as factors affecting attitude. Statements which appealed to the cultural and historical traditions of Wales were well received but wholehearted approval was withheld from extremes. 52.1 per cent claimed themselves to be in favour of the compulsory teaching of Welsh, while 5.3 per cent loathed it. Only 14.8 per cent agreed that there was economic benefit to be had through learning Welsh.

Of the headmasters questioned, 42 per cent thought that the time used to teach Welsh could be employed more profitably. 12 per cent thought that more time should be spent on Welsh. They suggested that the teaching of Welsh was unsatisfactory because of a lack of enthusiasm on the part of teachers, the inability of the majority of teachers to speak Welsh, a lack of suitable books, apathy from the parents and above all the fact that Welsh was not a subject for the eleven plus.

Teachers were slightly favourable towards Welsh (4.22)
with males slightly more favourable than females. Ministers of religion were also slightly favourable (4.26), especially those with parishes in Caerphilly. 73 per cent of those ministers questioned confirmed that there was no strong Welsh element in their churches.

It is very interesting to compare these results from Owen's investigation with those from two more recent studies (Edwards, 1970; Thomas, 1970). Edwards and Thomas co-operated in producing a set of statements to be used in both studies so that the results obtained could be easily compared.

Forty-five statements were collected by them and rated by twenty judges on a nine-point scale from very, very unfavourable (1.0) to very, very favourable (9.0). They seem to have been successful in producing a more balanced set of statements. Examples of the statements used include:-

1.0 All the years spent teaching Welsh at school are wasted because it is a useless subject.
3.2 One does not have to be able to speak Welsh to be a good Welshman.
4.5 Pupils should be allowed to choose whether they wish to follow courses taught in Welsh or English.
6.8 Bilingualism helps children to learn other languages.
9.0 No time or money should be spent on teaching English in Wales.

Fifty children and fifty parents were approached in each of the two areas studied, Tregaron and Cardigan. The subjects were requested to tick the statements with which they most agreed and the list was scored on the median value obtained for each statement by a graphing
In the more rural community of Tregaron, (Edwards, 1970), the overall mean score for the pupils was 6.17 (standard deviation 1.19). The range of scores obtained was 7.8-2.2 with a predominance to higher scores as is reflected by a high mean value around which replies are largely bunched. Among the parents, the mean score was even more favourable towards Welsh at 6.54 (standard deviation 1.13) with a range of 8.1-2.7. These scores only succeed in underlining the Welshness of the area and the favourable attitude towards the language in the community. It is important to note that there is a high percentage of homes in the area where Welsh is used. Of the fifty families concerned, forty-two spoke Welsh in the home with Welsh as the first language in thirty-six of these. The importance of the school as a locus for the formation of attitudes should not be ignored in this respect either. The Tregaron school is small, with a close relationship between teachers and pupils and perhaps with the kind of teacher dedicated to the Welsh language in such rural areas.

In Cardigan (Thomas, 1970), on the other hand, the scores obtained were less favourable than Tregaron with 5.18 for the pupils (standard deviation 1.74) and 4.84 for the parents (standard deviation 1.63). Both these scores are in the neutral range but rather less favourable than the corresponding scores for Tregaron and with a wider range of deviation. The fact that the children were tested under supervision in the school may have affected their answers due to the attitude of both school and educational authorities. Cardigan has a stronger English element than Tregaron and the language used in the home was one factor that was found to be especially significant. In homes where Welsh was the first language, a mean score of 6.01 was obtained compared with 4.13 for English first language homes.
The results for both groups show little differentiation for age, despite the widely-held belief that the younger generation show more loyalty towards the language. In addition, there seems to be little extremist attitude shown either way, although the children do seem to show more polarization. 27 per cent of the children revealed very unfavourable attitudes compared with 13.5 per cent of parents. Similarly, 14 per cent of the children were very favourable towards Welsh, compared with 8.5 per cent for parents.

A recent attitude study by the Department of Politics at the University of Wales, Aberystwyth (Madgwick et al, 1973) yielded similar results from a rated-sentence type test. To a large extent, the assessment of language attitudes was incidental to the general question of political attitudes. Respondents were required to select the one statement out of four that most accurately represented their own opinion. The four statements were as follows:

1. The preservation of the Welsh language is the most important problem facing us.
2. It is vital that the Welsh language be preserved.
3. It would be nice to preserve the Welsh language, but it is not the most important problem facing us.
4. The Welsh language will die out whatever we do.

The results, in percentages, were (1) 7 per cent, (2) 27 per cent, (3) 61 per cent, (4) 4 per cent and they confirm to us the impression gained above of a lack of extremist attitudes. The extremely high percentage obtained for the slightly unfavourable third option is rather unexpected, but may be accounted for by an imbalance in the set of statements that makes this third
option more of a neutral choice than a slightly unfavourable one.

The attitude survey published in the Gittins Report (Primary Education in Wales, 1967) used a technique which was basically different from those Welsh studies mentioned above. This survey was conducted on a national level and used a questionnaire which was primarily of the closed type, with informants asked to select the most appropriate of the given answers, for example:

"Do you think there is any disadvantage in learning Welsh?"
1. Yes.... 2. No.... 3. Don't know....

Some questions were more "open-ended"

"What are the disadvantages?"
1. Time better spent on other subjects
2. Welsh not spoken at home
3. Other (specify) ...........

The results again confirm the general picture of neutrality. 45 per cent could see no advantage in the children learning Welsh but only nine per cent were very hostile to the language. Of those who saw advantages in learning Welsh, half gave as their only reason "it is useful to know a second language"; and only ten per cent saw the language as a help in getting a post. Home language was again significant, with 85 per cent of families with both parents Welsh speaking in favour of the language.

The most recent survey of attitudes on a national level was carried out on behalf of the Schools Council for Wales (Schools Council Research and Development Project, 1973) and aimed to establish patterns of attitude towards
Welsh and English in the schools of Wales and chart their relationship to language attainment. Three age groups were selected, (i) 10 plus, (ii) 12 plus and (iii) 14 plus and schools were divided as to the Welshness of their catchment area. Group (a) included schools supplied by Welsh speaking areas (68-81 per cent Welsh speaking); group (b) by mixed areas (48-55 per cent); and group (c) by English speaking areas (3-26 per cent Welsh speaking). A fourth group (d) was made up by the "Bilingual Schools" where Welsh is regularly employed as a medium of instruction for certain subjects.

Two different kinds of technique were used, a Thurstone rated-statement type test and a Semantic Differential Test. Only the former was used for all age levels.

Two sets of statements were used, a twelve statement set for the primary school children, and a thirty statement set for secondary children. Among the statements were the following:

- We should work tirelessly to serve the Welsh language.
- Welsh ought to be a medium of instruction, not just a subject on the time table.
- Welsh should not be forced upon non-Welsh children.
- I don't want to learn Welsh as I'm not likely ever to use it.

Pupils were asked to select the statements with which they agreed and the mean scores were recorded on an attitude scale which ranged from 0 (very, very favourable) to 11 (very, very unfavourable). The tests were conducted in the school, sometimes under the supervision of the Welsh teacher, thus risking a possible pro-Welsh bias, as mentioned above for Thomas (1970).
The results of the Welsh language test indicated mean attitude scores ranging from 3.21 (very favourable) in Bilingual Primary Schools at 11 plus to 6.26 (marginally unfavourable) in English-medium Secondary Schools at 14 plus. Factors that influenced variation in attitude included length of residence in Wales (the longer the residence the more favourable the attitude); age (attitude towards Welsh becomes less favourable with age and a "cross-over" phenomenon occurs at the age of twelve); sex (girls were more favourable to Welsh than boys); and, of course, linguistic background, with a more favourable attitude in the Welsh areas. However, home and school background were the most influential factors and compensated for a linguistically unfavourable geographic background. So, bilingual schools proved the most favourable, even although they generally occur in English areas. This is because the very fact of sending a child to a bilingual school indicates a favourable home attitude. This attitude will be reinforced in the schools themselves where the attitude of the teachers is likely to be favourable.

There is strong support for individual choice in the matter of learning Welsh, as in previous studies, in all areas and among all age groups. One area of difference is to be seen between the results of this report and that of the Gittins Report (Primary Education in Wales, 1967). As stated above, only 10 per cent of parents questioned in the Gittins Report thought Welsh to be of any use in getting a job. In this later report, 71 per cent of 12 plus children in Welsh speaking areas agreed that "being able to speak Welsh is an advantage in obtaining work in Wales". In English speaking areas, the percentage was lower at 47-49 per cent, but even this is considerably higher than the results obtained by Gittins.
In the Semantic Differential Test, only children in the 14 plus age group were questioned, using a seven point scale. The complete list of adjectives used was as follows:

- musical-unmusical
- happy-sad
- colourful-colourless
- dull-lively
- scientific-unscientific
- rich-limited
- natural-unnatural
- beautiful-ugly
- modern-old fashioned
- strong-weak

- easy-difficult
- popular-unpopular
- useful-useless
- poetic-unpoetic
- dead-living
- friendly-unfriendly
- familiar-unfamiliar
- interesting-boring
- important-unimportant
- cold-warm

The results of the two kinds of test were remarkably similar. The following percentages of attitudes were on the favourable side of neutral towards Welsh:

<table>
<thead>
<tr>
<th></th>
<th>Semantic Differential</th>
<th>Thurstone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welsh Area</td>
<td>58</td>
<td>59</td>
</tr>
<tr>
<td>Mixed Area</td>
<td>50</td>
<td>52</td>
</tr>
<tr>
<td>English Area</td>
<td>41</td>
<td>37</td>
</tr>
<tr>
<td>Bilingual Schools</td>
<td>82</td>
<td>86</td>
</tr>
</tbody>
</table>

Attitudes are consistently favourable with the aesthetic adjectives "musical", "poetic", and "beautiful" and unfavourable (even in the bilingual schools) with "old fashioned" and "unscientific". Only mixed and English areas considered the language "useless".

It should be noted that this particular use of the Semantic Differential Test does not employ the randomizing principle advocated by Frederick Williams. All the unfavourable adjectives occur on the left hand side of the scale and adjectives involving similar concepts occur next to each other. The marked lack of extremist
attitudes in all the studies looked at so far may be due to a general tendency on the part of judges to moderate their attitudes towards the neutral centre of the scale when questioned. They do not like to be seen as extremists, especially in a subject as emotive as that of the Welsh language.

A large number of recent studies, conducted under the influence of Howard Giles, have involved the investigation of attitudes in relation to dimensions of Welsh ethnic identity (cf Giles and Taylor, 1978), and in particular, of the relation of Welsh language skills of various kinds to it. Positive reactions towards the Welsh language itself were found in Bourhis and Giles (1976), Lewis (1975) and Bourhis, Giles and Tajfel (1973) and a favourable attitude towards a broad Welsh accent in English was found by Bourhis, Giles and Lambert (1975) and Bourhis and Giles (1977). These studies seem to suggest that Welshmen value their national group membership and its language highly.

The Bourhis, Giles and Tajfel (1973) study is particularly interesting as it involves the first extension of the matched guise technique to the bilingual situation in Wales. For this test, three groups of Welshmen were chosen as judges - namely Welsh-English bilinguals, English speakers who were attempting to learn Welsh and English speakers who were making no attempt to learn the language.

First of all, a questionnaire was distributed to each subject, which inquired into both social and language attitudes in order to test the validity of these groups. The questionnaire showed that as their reported ability to speak and understand Welsh declined over the three groups so too, rather surprisingly did their estimation of their ability to speak English. More expectedly, their use of Welsh at home and in work and their
dissatisfaction with the government's handling of Welsh autonomy also declined. Members of the third, English only, group considered it less useful for their children to learn Welsh and assessed themselves as feeling less Welsh. It seems that subjects from the learner group had stronger Welsh accents and the authors suggest that learners are making an effort to learn the national tongue in order to assert more clearly their Welsh identity and tend to use a more prominent Welsh accent in order to emphasize that identity until they can use the language. The three groups thus appeared quite distinct on a number of the issues relating to the language.

In a pilot study for the main evaluation study, a sample of Welsh adults were asked to list words and phrases that they considered descriptive of the typical Englishman, non-Welsh speaking Welshman, and bilingual speaker. The results were tabulated according to word frequency and the most frequent of them were retained for the matched guise study as the most salient dimensions for Welshmen when evaluating samples. Some traits were rather surprising, including "romantic", "patriotic" and "sports loving"!

The three groups used above were then asked to evaluate the personalities of a number of speakers based on the voices heard on tape. Subjects were told that they were listening to tapes of some speakers who were bilingual and had chosen to speak in Welsh and others who could speak only English. In actual fact, the passages were all read by two male bilingual speakers in the following guises:— (i) Welsh, (ii) English with an R.P. accent, (iii) English with a South Wales accent.

In view of the differences revealed in the earlier questionnaire, it was surprising to find no evaluative divergence between the three groups in their rating of
the various guises. Judges of all groups upgraded the Welsh language on most traits. Indeed on some traits such as "trustworthiness", friendliness", and "sociability", a Welsh accent in English was sufficient to secure as favourable ratings as those for the Welsh speakers. Welsh language speakers were rated the most nationalistic and patriotic of all.

On the scale "How much I'd like to be like that speaker", subjects in all groups preferred to attain the image of the Welsh speaker rather than that of the supposedly high prestige R.P. speaker. The R.P. speaker was rated highly only on the scales of "conservatism", "arrogance" and "snobbishness" and most highly of all on "self-confidence" but there was no difference on the scale of perceived intelligence.

The results suggest that the Welsh have a favourable image of themselves as a group, and do not seek after the prestige R.P. mode. Even those who express doubts as to the value of speaking Welsh agree to this.

A similar positive reaction to Welsh was revealed by Bourhis and Giles (1976). In an interesting little naturalistic experiment, members of an audience at the production of a Welsh language play were asked to take part in an audience survey. On some nights the request was made in Welsh while on others it was made in English. It was found that almost three times as many questionnaires were completed when the plea was made in Welsh than in English.

Giles (1971) and Bourhis, Giles and Lambert (1975) revealed relatively favourable views of Welshmen broadening their accents and Bourhis and Giles (1977) have shown that some Welshmen tend to broaden their accents in English as a symbol of their national identity. It should be noted, however, that R.P. speakers in the
first two of these studies were rated higher on a scale of intelligence than in Bourhis, Giles and Tajfel (1973). Giles and Powesland (1975) attempt to explain this phenomenon by the fact that this latter study used adult judges whereas the other two used adolescents. They also point out that whereas the data for Giles (1971) and Bourhis, Giles and Lambert (1975) was collected early in 1972, Bourhis, Giles and Tajfel (1973) collected their material at the end of that year. They suggest that increased attention towards the language and separation in the mass media and the concerted Welsh Language Society campaigns of that year, may have led to a sudden change in attitude. They further suggest that other nations have experienced similar changes of attitude, e.g. Basque, Catalan and Breton.

Before concluding our view of Welsh language attitudes, we shall look briefly at a number of studies by Giles and his colleagues that have made use of a different method to study Welsh identity. This method is called multidimensional scaling analysis (cf Shepard, 1962; Kruskal, 1964). The method involves the compilation of a list of labels with which a Welshman might identify and the inclusion in that list of the term "Myself" as a control. Subjects are then asked to judge the degree of similarity between each pair of labels. Based on their results, it is possible to generate a mean similarity matrix analagous to a correlational matrix. By focussing attention on the relationship of each label to "Myself", it is possible to make inferences as to the national identity of the subjects.

Giles, Taylor and Bourhis (1977), for instance, use this method to examine the roles of language, cultural background and geographical residence as dimensions of Welshness. Results of the multidimensional scaling analysis (MDSCAL) showed language as the most important dimension of Welsh identity with cultural background as a
subordinate factor and geographic residence having little effect at all. This would seem to indicate that language spoken may be of fundamental importance as a dimension of national identity (cf Fishman, 1977; Giles, Bourhis and Taylor, 1977). It would seem that cultural affiliation is not a crucial factor for English speakers in the Welsh situation and that many Welshmen who cannot speak the language find difficulty in defining Welshness in terms other than linguistic.

Another study (Christian, Gadfield, Giles and Taylor, 1976) attempts to discover if identity profiles were context specific and whether there were situations in which cultural affiliations were salient for the non-Welsh speaker. This was achieved by incorporating a more varied range of stimulus concepts into the procedure, including concepts relating to nationalism, and by testing half the subjects in a context where English-Welsh conflicts were heightened. To this end, subjects who were all 17 year old school pupils speaking only English were presented with the stimulus concepts only after having completed an essay. One group wrote an essay on how Welsh identity had suffered through English domination during the past century while the other group wrote on industrial pollution. On a dimension of national identity, members of the former group displayed a definite tendency towards those concepts which indicated "Welsh" ethnic orientation ("Welsh Nationalist", "A Welshman who speaks only English") and away from "English" ethnic orientation ("An Englishman who can speak only English", "A person concerned with British unity"). On a second "radical separatist-conservative integrationist" dimension, subjects in both groups distance themselves from the Welsh Nationalist concepts ("Welsh Nationalist", "A person concerned with survival of Welsh identity") although there is a clear convergence of subjects in the former, salient group with the concept "A Welshman who speaks Welsh".

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The findings suggest that identification with the Welsh national group is multidimensional rather than an all-or-nothing dichotomy. Ethnic categorization is a complex structure where people may identify with certain features of their national group and not with others according to social context. One of those features with which people may identify is the Welsh language.

How then can we best use what we have learnt from a consideration of these attitude studies for our own project. Clearly, it is not possible for us simply to adopt one particular method in its entirety, as we would appear to be breaking new ground in attempting to assess subjects' attitudes towards particular linguistic phenomena. It will have been observed that of those studies concerned with linguistic phenomena in relation to attitude, none have had to do with the study of attitudes towards the phenomena themselves, but instead have looked at the way in which the use of particular linguistic elements reflects various social attitudes.

A number of novel methods have been devised to overcome this particular problem, and these will be discussed fully in the next chapter ("Instruments and Methods"). As regards the general attitude section of the study, it was decided that a questionnaire, suitably framed, would be the most appropriate and convenient method of obtaining this data. This questionnaire could then be administered at the same time as the above-mentioned interference attitude tests. This questionnaire is designed very carefully and will incorporate scaled and weighted measures of various kinds. The details of the questionnaire will also be discussed in the next chapter to which we now turn.
CHAPTER 5

INSTRUMENTS AND METHODS
We have already stated that the main thrust of our thesis will be to probe the interconnections between attitude and interference in Wales and to discover the salience or otherwise of these attitudes for subjects' actual usage. The consideration of these matters will involve the deployment of certain tests and the present chapter sets out to describe the design of those instruments to be used in the testing. It aims to give a brief description of the kind of data which will be under consideration and to assess our reasons for selecting particular methods of attitude study from those described in the previous chapter. We will consider the factors involved in the design and adaptation of instruments to the collection of attitudes towards interference and in the design of a suitable method of measuring the degree of interference in a particular individual's speech.

The information which we are to consider falls broadly into two groups - the usage of interference on the one hand, and the various attitudes, both general and specific, that may influence that usage on the other. Two separate types of instrument will therefore be required to deal with these two kinds of information.

The first area of information to be considered will be that of attitude in relation to interference. This involves not only attitude towards the phenomenon itself but also other attitudes which may affect usage such as general opinions about the linguistic situation in Wales.

The previous chapter showed us a number of different methods that have been used to collect various aspects of attitudes towards language. We have seen that the question of subjects' attitudes towards interference have been largely ignored apart from a reference to attitudes to "franglais" in the Orleans study of French
This involved the inclusion of a direct question about attitudes to interference in a more general questionnaire. We have already shown the questionnaire to be a most useful and convenient instrument for the collection of attitude data and intend to make use of it in our own study. The questionnaire will include specific questions about attitudes to interference and also about more general attitudes to the language in Wales. An attempt will also be made, however, to assess attitudes to various individual examples and kinds of interference by the design of suitable tests which will be described below. These tests are to be included in the questionnaire and administered at the same time.

The second area of interference which concerns us is the usage of interference. The main aim of our tests in this area will be an attempt to measure the differential use of interference made by different groups of speakers.

In this respect, it is important to bear in mind that the tests used to elicit this information must be designed in such a way as to provide data which is readily comparable from group to group and from individual to individual. In addition, we will primarily be concerned with the ongoing dynamic type of interference, i.e. interference as it is happening.

Pilot Study

By way of introduction to the design of the questionnaire, a pilot study was undertaken to discover the relevant parameters on which to base the questions to be included in the questionnaire. To this end, four
acknowledged experts on the Welsh language were questioned as to their opinion of Welsh language standards and the Welsh linguistic situation in general. The four experts were as follows:

1) Professor R. G. Gruffydd - formerly Professor of Welsh, University College of Wales, Aberystwyth and presently Chief Librarian at the National Library of Wales.

2) Professor J. E. Caerwyn Williams - Emeritus Professor of Irish, University College of Wales, Aberystwyth and formerly Professor of Welsh, University College of North Wales, Bangor.

3) Professor R. M. Jones - formerly Senior Lecturer and presently Professor of Welsh, University College of Wales Aberystwyth.

4) Professor B. F. Roberts - formerly Senior Lecturer in Welsh, University College of Wales, Aberystwyth and presently Professor of Welsh, University College, Swansea.

Each of these experts was led in a discussion of the Welsh linguistic scene based loosely on a short informal questionnaire. Each was allowed to expand his answer to each question at any length and in any direction he considered relevant. The resulting discussions varied in length from 15-55 minutes.
Discussions were based on a short questionnaire of open-ended questions on which the experts were urged to express themselves freely. The form of the questionnaire was entirely informal and merely served as a guideline to lead each discussion in the same general direction. Questions were posed on the following topics:

i) Do you feel that language standards in Welsh in general are in decline?

ii) What form does this decline take and what part does interference play in it?

iii) To what causes do you ascribe these changes?

iv) What methods do you consider suitable for arresting the decline?

v) How do you envisage the Welsh linguistic situation developing in future years?

All the interviews were conducted in Welsh.

The experts revealed a remarkable uniformity in their response to these questions although individual experts did develop the discussion according to their own areas of interest.

i) All experts did agree with the proposition that general standards in both spoken and written Welsh were in decline, although Dr. Jones, who has received training in Modern Linguistic Theory, did object to speaking in terms of "decline". All pointed to the fact that the Welsh department in Aberystwyth had been recently forced to introduce special lessons designed to improve students' written Welsh.
ii) Experts pointed to a wide range of words and constructions that they considered unacceptable in various way. A large proportion of these involved different aspects of interference. In particular, there was the question of the direct translation of certain English idioms involving the use of prepositions (cf above p 94).

iii) The chief cause to which the experts ascribed the decline in standards is the ignoring of the teaching of Welsh grammar in schools. A wide array of other causes were also ascribed including various aspects of the general linguistic situation in Wales such as the relatively low prestige of Welsh and its association with an economically backward way of life. Dr. Jones drew attention to the relevance of his theory of Welsh inferiority mentioned above in Chapter 2 (cf Jones, 1976).

iv) Apart from the obvious factor of the improved teaching of Welsh grammar in schools and the training of teachers to that effect, a number of other factors connected with an increase in Welsh language functions and prestige were also put forward. These included the greater use of the language in education, both as a subject and a medium of tuition, in broadcasting and all other aspects of public life. In short, they see a general increase in functions as the best means of bolstering and disseminating the standard.

v) All experts recognized the critical nature of the situation facing the Welsh language and yet were hopeful that the future would see an improvement in that situation. Once again the concentration was on the need to increase language functions and prestige. There was particular support for various kinds of non-violent direct action in support of these aims, and also support of those individuals who sought to undertake such action.
The Questionnaire

The questionnaire which was used to probe the subjects' attitudes in relation to interference was based on those parameters engendered in the pilot discussions. Questions fell into two broad areas - general attitudes to the linguistic situation and specific attitudes to interference. An initial questionnaire was designed, and tested on a small group of four informants in order to test the form and viability of certain questions. A revised questionnaire was devised in the light of these findings and it is this which will be described in this section, together with an account of the choice and design of individual questions. The questionnaire was written and administered in Welsh.

The preliminary section of the questionnaire was concerned with obtaining the basic personal details of each subject by way of background information. This included the recording of each subject's name and address and date and place of birth. Also recorded were the subject's occupation or former occupation and educational attainment. The latter was marked on a scale of four as follows:

1. received primary education only
2. secondary modern level
3. grammar school
4. further education.

Each subject was later accorded a reference number.

All questions in the general attitude section of the questionnaire were of the closed type. Each was

Footnote 1: A copy of the questionnaire is to be found at Appendix I.
designed to allow a specific set of answers. These were listed and subjects were asked to indicate with which of the possible choices they agreed most. It was particularly important to ensure here that all possible options were covered in the list.

A single open-type question was included in the initial pilot questionnaire which questioned subjects about their attitude to the place Welsh should have in the educational system. The question was intended, it should be said, largely to elicit examples of the subjects' written Welsh for analysis in terms of interference. Answers, however, were invariably short and consisted of incomplete sentences. On later questioning, all subjects admitted to feeling ill at ease at having to answer this kind of question. This question was discarded from the final version.

Section One involves basic questions about the relative status of the two languages in the community, language standards in Welsh including the question of interference and methods of improving these.

Question 1. Should English or Welsh be the official language of Wales?
   i) English..... (ii) Welsh..... (iii) Both.....

This question has been designed to test the subjects' acceptance of the use of either English or Welsh in the official life of Wales, and, by extension, their perceptions of the relative status of each.

Question 2. Do you think the following should officially be:

   (a) monolingual English, (b) monolingual Welsh, (c) bilingual?
   (i) the Welsh Assembly proposed by the Government..
   (ii) the Welsh Office..
   (iii) local council meetings in English speaking areas..
Question 2 continued
(iv) local council meetings in Welsh speaking areas...
(v) local council administration in English speaking areas...
(vi) local council administration in Welsh speaking areas...
(vii) official forms...
(viii) road signs...
(ix) courts...
(x) university courses...

The aim of this second question was to probe more deeply the attitude to the relative official usage of the languages by considering it in particular spheres of official activity.

Question 3. In your opinion, where is the best form of Welsh to be found?
   (i) Bible...          (ii) Chapel...
   (iii) B.B.C....       (iv) Books...
   (v) Newspapers...    (vi) The Spoken Language...
   (vii) Elsewhere...

This question attempts to discover which particular form of Welsh is the one most highly respected by subjects and to which they look as a standard.

Question 4. In general, do you think that standards of spoken Welsh have declined during your lifetime?
(i) Yes...  (ii) No...

Question 5. (A) If you do (1) where is the deterioration to be seen?
   (i) faulty grammar....
   (ii) the use of too many English constructions....
   (iii) faulty pronunciation....
Question 5 (A) (1) continued

(iv) the use of too many English words....
(v) the use of too many English idioms....

(2) Give examples of the kind of thing you consider particularly bad.

(B) If you do not (1) Do you, nevertheless, think that the English language has too much influence on Welsh?

(i) Yes.... (ii) No....

(2) If so, where is this influence to be seen?

(i) vocabulary.... (ii) grammar....
(iii) pronunciation.... (iv) idioms....

(3) Give examples of the kind of thing you consider particularly bad.

It is these two questions which, taken together, bring us to the main point of the questionnaire for the first time, namely the subjects' perception of, and attitude towards interference and indeed of language change in general. Question 4 deals with the subjects' perception of language change in terms of a decline in spoken standards. In speaking of decline in this context, it is realized that we are largely out of step with current linguistic thinking. It was considered, however, preferable to use more popular notions in dealing with subjects who are basically linguistically naïve.

Following on from their recognition of a degree of decline in the standard of spoken Welsh, Question 5 (A) attempts to probe subjects' perceptions of particular areas of the language where decline is to be found, including various aspects of interference such as vocabulary, syntax, and idiom.

If subjects deny any decline in spoken standards, they are questioned, in Question 5 (B), directly about their perceptions of interference and of the form it takes. In the cases of both 5 (A) and 5 (B), subjects are asked to cite examples of those items which they consider
particularly bad.

Question 6. Place the following methods in order according to their effectiveness for improving language standards.

(i) teaching the language better in schools....
(ii) more bilingual schools....
(iii) more Welsh programmes on radio and television....
(iv) devolution....
(v) influences from the television and newspapers....

Any other suggestions....

Question 6 involves a rather different method than the other questions in this section namely the rank-ordering of possible options rather than the choosing from among those options. With this technique, subjects are requested to rank members of a particular set of items in order according to the relevant parameters. In this case, the test is designed to probe subjects' appreciation of the effectiveness of various methods for improving language standards, by asking them to place the methods in order of preference. The methods included in the test involve education, the media and politics. Space is also provided for subjects to suggest any other methods that they might consider relevant.

Question 7. Do you consider the Welsh language adequate for use in a modern, technological society?

(i) Yes.... (ii) No....

Question 8. If not, how would it be possible to make it adequate?

(i) by coining words from Welsh resources......
(ii) by borrowing English words....
(iii) it is not possible....
Questions 7 and 8 involve the elaboration of codes and subjects' perceptions of this in relation to Welsh. Question 7 asks whether subjects consider Welsh sufficiently elaborated, and if they do not, question 8 seeks to discover whether subjects consider such an elaboration possible and what form it should take.

Question 9. Is it important to speak good Welsh?

(i) very important.... (ii) fairly important....
(iii) unimportant....

Question 10. Are you satisfied with the way in which you yourself speak Welsh?

(i) very satisfied....
(ii) fairly satisfied....
(iii) neither satisfied nor dissatisfied....
(iv) rather dissatisfied....
(v) very dissatisfied....

Question 9 seeks to probe the subjects' general awareness of the importance of good spoken standards in Welsh, where question 10 seeks their opinion of their own standards of speech. Taken together, the two questions provide a kind of "linguistic insecurity index" (cf Labov, 1966b: 93). Here, subjects' perceptions of the importance of good spoken Welsh are weighed against their opinion of their own speech, linguistic insecurity being measured in terms of the disparities between the two.

Section Two

Section Two deals more generally with subjects' linguistic background, in terms of various spheres of activity involving the use of Welsh in the media and also questions their awareness of one of these varieties of Welsh and its effect on their own speech.
Question 1. How often do you listen to Welsh programmes on the radio or television?
   (i) a number of times each day....
   (ii) about once a day....
   (iii) a number of times each week....
   (iv) about once a week....
   (v) very rarely....
   (vi) not at all....
   (vii) no radio or television set....

This question attempts to gauge subjects linguistic background in terms of the amount of viewing and listening time they accord to Welsh language broadcasts. About twelve hours of Welsh television programmes were broadcast each week at the time of questioning and an entire V.H.F. channel was given over to the Welsh language. It is therefore fairly easy for a speaker to avoid these if he so desires. A high score on this question is therefore taken as an indication of a pro-Welsh linguistic background (cf below).

Question 2. What do you think of the kind of Welsh spoken on Radio and television?
   (i) very good....   (ii) fairly good....
   (iii) adequate....   (iv) artificial....
   (v) rather bad....   (vi) very bad....

Question 3. Do you think the B.B.C. Welsh has affected the way you yourself speak Welsh?
   (i) not at all ....   (ii) a little....
   (iii) very much....

Questions 2 and 3 of this section arise from remarks made by a number of the experts questioned during the pilot study. It was suggested that the standard of Welsh espoused by the B.B.C. was not all that it should be. In particular, it was felt that the language used is in some way
"artificial" and hence the inclusion of this item in the scale of question 2. It was felt further that this variety was having an effect on the speech of ordinary people. Questions 2 and 3 aim to see how far these perceptions extend to other groups.

Question 4. Do you read Welsh books?

(i) very often.... (ii) fairly often....
(iii) occasionally.... (iv) very rarely....
(v) not at all....

Question 5. Do you read Welsh newspapers or magazines?

(i) very often.... (ii) fairly often....
(iii) occasionally.... (iv) very rarely....
(v) not at all....
Which ones do you read regularly?

In Wales, Welsh language books, magazines and newspapers are all purchased in relatively low quantities and a high rate of use of these is therefore once again indicative of a strong Welsh background.

The scores from these two last questions can be compounded with those from question 1 to form a simple linguistic background index, our assumption being that the activities involved in these questions are indicative of overall allegiance to the language and that a high level of usage in these areas corresponds to a more favourable attitude towards the language. Scoring one point for the first answer on the scale of each question, two for the second and so on, a range of scores emerges for each subject extending from three to sixteen. A low score on the

Footnote 2: It is necessary to give a neutral score of 3 points to the reply of "(vii) no radio or television set..."
index indicates a pro-Welsh background.

Section Three

Section Three deals with more overtly political aspects of the background and the place of language maintenance in it.

Question 1. Which of the following organizations does the most to secure the future of the Welsh language?
(i) Plaid Cymru.... (ii) Cymdeithas yr Iaith.... (iii) the Urdd....

Here, subjects are asked to rate three Welsh organizations, one political, one militant and one cultural as to their effectiveness for language maintenance. The three organizations are (i) Plaid Cymru who seek to improve the language's fortunes by political, electoral means, (ii) Cymdeithas yr Iaith Gymraeg who resort to more direct action to achieve their ends and (iii) Urdd Gobaith Cymru a youth movement which sponsors cultural and other activities to encourage the language among the young.

Question 2. Would you consider supporting Cymdeithas yr Iaith?
(i) under any circumstances.... (ii) only if it did not involve violence.... (iii) only if it did not involve breaking the law.... (iv) not at all....

Question 3. Have you supported Cymdeithas yr Iaith actively?
(i) Yes.... (ii) No....

Both of these questions involve the discovery of the subjects' attitudes towards Cymdeithas yr Iaith Gymraeg.
As the only organization in Wales which employs various kinds of direct, usually non-violent, action in pursuit of its aim of furthering the Welsh language, Cymdeithas yr Iaith tends to arouse strong attitudes both for and against. It is assumed here that support for Cymdeithas yr Iaith implies strong pro-Welsh bias, although the reverse is not necessarily true.

Question 4. Do you favour:-

(i) complete independence for Wales....
(ii) self-government within the U.K. with the ability to raise taxes....
(iii) devolution as suggested by the Government with an advisory assembly....
(iv) no change in the present situation....

Question 4 is connected with one of the most political of all questions in Wales. The survey was undertaken before the 1979 referendum on devolution which decisively rejected the idea of an advisory assembly (some would say of any kind of separation) at a time when the question was still current. Once again, an attitude in favour of independence or self-government is taken to imply a pro-Welsh tendency but not the reverse.

Question 5. How important are the following for Wales? Place a tick in the appropriate box.

very fairly not very completely important important important important unimportant

i) more industry for Wales
ii) more jobs in rural areas
iii) better roads
iv) preserving the Welsh language
v) more bilingual education
Question 5. continued

vi) more jobs in industrial areas
vii) a separate Welsh channel
viii) less inflation
ix) devolution
x) better opportunities in education

This question consists of ten separate closed-type questions, each employing the same scale, which have been compounded to form a matrix. The question seeks peoples' attitudes to various improvements that could be made to life in Wales, and their relative importance. Setting the questions out as a matrix means that the relative importance of different factors can be compared at a glance.

Question 6. In your opinion, how important is it that Welsh continues as a spoken language?
   (i) very important.... (ii) fairly important.... (iii) not very important.(iv) completely unimportant....

Question 7. In your opinion, how likely is it that the Welsh language will continue as a spoken language in the future?
   (i) very likely       (ii) fairly likely:....
   (iii) fairly unlikely.... (iv) very unlikely....

Questions 6 and 7 seek to discover subjects' reactions to the decline of the language, both in terms of their own feelings about that decline and of their perceptions of its continuance. Taken together, the two questions provide a strong indication of general attitude with regard to the Welsh language.
Question 8. Do you think that Welsh ought to be compulsory in schools?
   (i) in every area.... (ii) only in Welsh speaking areas....
   (iii) not at all....

Question 9. If it were necessary for a child to choose between learning Welsh and French, which should he choose?
   (i) Welsh.... (ii) French....

Questions 8 and 9 are based on the question of the place that the Welsh language should have in the schools of Wales. These questions were included because of the prominence given to the problem of Welsh in education, but also because feelings had been heightened by the establishment in Aberystwyth at that time, of a group entitled the "Language Freedom Movement" which aimed to oppose the compulsory teaching of Welsh up to O-Level standard in all schools in the area.

We have already spoken of the use of questions 1, 4 and 5 of Section Two as a linguistic background index with regard to the use of Welsh. It would also seem possible to devise an index of a more comprehensive attitudinal kind based on scores from a selection of questions from Sections One, Two and Three of the questionnaire.

Choosing those questions which most involve attitudes towards the language's position in society, its decline and restoration, it is possible to create such an index. The following questions would seem suitable.

<table>
<thead>
<tr>
<th>Section One</th>
<th>1, 7, 9.</th>
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<tr>
<td>Section Two</td>
<td>1, 4, 5.</td>
</tr>
<tr>
<td>Section Three</td>
<td>2, 3, 4, 5 (iv), 6, 7, 8, 9.</td>
</tr>
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Marking one point for the most pro-Welsh item on each
scale and so on to the end of the scale, an index is obtained which ranges from 14 to 44, with the most pro-Welsh at the bottom of the range and anti-Welsh at the top. From these individual scores, mean group scores may then be computed.

**Tests of Attitude to Interference**

A number of different tests were designed to discover subjects' reactions to and perceptions of individual examples of the interference phenomenon itself and these were included as the fourth and final section of the questionnaire.

The design of these tests involves the use of questions of three basic types:

i) the question of subjects' perceptions of their own usage of interference phenomena and their appreciation of the acceptability of these phenomena. Subjects' admission of the former obviously relies heavily on their attitude to interference.

ii) subjects' awareness of examples of different types of interference and their ability to provide "correct" Welsh alternatives.

iii) the rank ordering of groups of sentences involving different kinds of interference.

Questions 1 and 2 only involve the use of lexical interference of a number of different kinds. Subjects are asked the following questions with regard to a specially selected list of words used in Welsh:

**Question 1.** Do you use the following words in Welsh:

(a) always  (b) sometimes  (c) never
Question 2. How would you describe these same words?
(a) completely acceptable
(b) undesirable but there is no choice
(c) completely unacceptable.

The following list of thirty words were selected and used for the two questions:-

1. helpu (to help) 2. clyfar (clever) 3. parod (ready) 4. het (hat) 5. cicio (to kick) 6. miwsig (music) 7. joio (to enjoy) 8. lot (lot) 9. stesion (station) 10. ffrfj (refrigerator) 11. mynd (to go) 12. broadcasto (to broadcast) 13. diffinio (to define) 14. bom (bomb) 15. clwb (club) 16. piano (piano) 17. haf (summer) 18. television (television) 19. dreifio (to drive) 20. plastig (plastic) 21. brown (brown) 22. iwso (to use) 23. radio (radio) 24. pymtheg (fifteen) 25. lein (line) 26. antiseptig (antispetic) 27. emosiynol (emotional) 28. cyrtans (curtains) 29. licio (to like) 30. stiletto heel (stiletto heel)

In order to provide a test of subjects' attitudes to various kinds of interference, words were chosen from a suitable range of different groups of lexical borrowings. Those words chosen were subsequently arranged in random order as presented above.

For the purposes of comparison, a small group of four control words were included. These consisted of words of native Welsh, or, in one case, Latin origin. Naturally, these words were expected to elicit no adverse reactions. The four words used were:-
The remaining twenty-six words are all examples of interference of various kinds. It must be admitted here that their choice was accomplished in a completely unsystematic manner and that their assignment to the various groups is, to a certain extent, quite arbitrary. This arbitrariness concerns in particular the status of certain examples as established loans and the status of certain competing Welsh forms as viable alternatives. These choices and the reasons behind them will be outlined below.

The following three factors were used to separate the range of possible words into four groups:

i) the status of the word as an established element in the standard language.
ii) the assimilation or otherwise of the loan to the phonological system of Welsh.
iii) the presence or absence of a viable Welsh alternative.

The criteria for assessing the relevance of each of the three factors for the words chosen were as follows:

i) established/non-established. A word's listing in a Welsh dictionary was used as a mark of its acceptability as an established form in the standard language. The dictionary used in this instance was the Collins-Spurrell Welsh Dictionary (1960). As this is a bilingual Welsh-English/English-Welsh dictionary intended for learners of the language, it would seem fair to assume that only acceptable standards have been offered. A listing in either the English or the Welsh half was considered suitable for this purpose.

ii) assimilated/non-assimilated. The degree of a word's assimilation was determined in terms of
ii) continued
(a) sounds not present in the native system or
(b) the presence of consonant clusters not
present in the native system.

iii) alternative/no alternative. The existence of an
alternative Welsh form is relatively unproblematic, being determined as it is by a suitable
listing in the English-Welsh section of the
dictionary against the relevant English
equivalent. The problem lies with the deter-
mination of the presence of a Welsh alternative.

For some alternatives suggested in a dictionary
of this kind have only a peripheral validity in
as much as they do not occur in the contemporary
language or only in the most formal variety of
it. Hence the use above of the term "viable"
which is intended to indicate those alternatives
which can be used freely in modern Welsh, whether
spoken or written. As has been noted above (p.112).
et the Welsh and English alternatives frequently
form stylistically differentiated variants, with
the Welsh alternative used in formal and the
English alternative in less formal situations.

The interplay of these three bi-polar factors would of
course normally give eight combinations as follows:-

<table>
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<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Assimilated</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Alternative</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

The number of workable groups is reduced by making two
important assumptions as to the relative co-occurrence
of the three factors.
It is axiomatic that established loans have been assimilated to the phonological system of the recipient language and established must therefore be accompanied by assimilated, thereby discounting the possibility of sets 1 and 8 above, which are incorporated into sets 2 and 3 respectively. It also seems reasonable, though perhaps less clearly so, that non-established loans are likely to have an alternative form available and that the combination -established, -alternative (sets 4 and 7) is also invalid and incorporated into sets 5 and 6. It is true, of course, that the combination of the salience of a new concept and the absence of a native term for that concept is an important source of lexical interference. Our premise here is, however, that where adaptation to the new concept takes the form of transference rather than native innovation, the establishment process is very rapid and the -established, -alternative combination is of negligible duration. We are therefore left with sets 2, 3, 5 and 6 as the salient ones for our consideration as follows.

i) Established/No alternative (Set 2)

Nine words were included in this group. They were:

4. het 5. cicio
13. diffinio 14. bom
15. clwb 16. piano
20. plastig 21. brown
23. radio

Of these 4. het, 16. piano and 23. radio have Welsh language alternatives "diddosben", "perdonneg" and "diwifr" respectively which may be considered very old-fashioned and extremely formal. 21. brown represents an example of semantic extension.

ii) Established/Alternative (Set 3)

Four words were included in this group:
Each of these forms has a viable Welsh alternative which can be stylistically graded for formal contexts.

iii) Non-Established/Alternative (Set 5)

Nine words were included in this group: -

7. joio 8. lot
9. stesion 19. dreifio
22. iwso 25. lein
26. antiseptig 28. cyrtans
29. licio

All these words have suitable viable Welsh alternatives but unlike those in Group (ii) above, these pairs are strictly stylistically graded with Welsh alternatives in formal contexts and English alternatives in less formal contexts.

iv) Non-Established/Non Assimilated (Set 6)

Four words were included in this last group: -

10. ffrij 12. broadcasto
18. television 30. stiletto heel

As mentioned above these words show various degrees of non-assimilation, including non Welsh sound [3], non-native consonant clusters or a non-native ordering of elements in a compound phrase.

The thirty words gained from these four groups and control group were arranged in random order in three columns of ten.

Question 2. How would you describe the same words: -

a) completely acceptable  b) undesirable but there is no choice

   c) completely unacceptable?
This question employs the same list of randomized words and asks for them to be marked in a similar manner by using the letter corresponding to the relevant answer.

If anything, this second question is the more interesting of the two, providing as it does direct information as to the avowed reaction of linguistically naive speakers to interference. Even more significant is the fact that questions 1 and 2 can be used together as a kind of "linguistic insecurity index" (cf. Labov, 1966b) in as much as they may reveal some discrepancy between attitude and usage. In as far as subjects admit their usage of linguistic forms which they also consider unacceptable, they thereby admit feelings of insecurity as to the standard of their own speech. A simple index may be formed to express this insecurity based on the number of such combinations of answers obtained for each subject.

Question 3. Underline any examples of English influence that you see in the following sentences:-

(i) Mae hwnnw'n siarad Cymraeg yn gwd.
(ii) Dyna'r unig eiriau a ddywedodd e.
(iii) Ble mae'n dod o.
(iv) Dyw pregethwrs ddim cystal ag oeddyn nhw.
(v) Dywedwch wrth Mair am alw'r meddyg.
(vi) Mae 'na ddyn i 'ch gweld chi.
(vii) Mae eisiau degs ar gyfer y machân yn y laundrette.
(viii) Bydd rhaid inni ffindio mäs yn nes'ymlaen.
(ix) Rwy'n gallu gweld rhywun yn dod.
(x) Mae wedi bod yn byw yma ers pum mlynedd.
(xi) Alla'i ddim gweld unrhywun yn dod.
(xii) Dydy e ddim wedi cael ei ginio eto.
(xiii) Mae'r iaith yn mynd i farw allan, beth bynnag.
(xiv) Car fi yw'r un 'na.
(xv) Doedd e ddim yn siŵr os oedd un ar gael.
(xvi) Mae'n chwarae'r piano'n dda iawn.
Question 4. If you consider some of the above sentences to be completely unacceptable, give acceptable sentences in their place.

Question 3 attempts to gauge subjects' perceptions of various kinds and degrees of interference by asking them to mark those examples occurring in a set of sixteen sentences. Question 4, on the other hand, assesses subjects' reaction to these different kinds and degrees of interference by asking them to correct those same examples of interference.

Question 5. Put the sentences in the following groups in order according to the standard of the Welsh in them.

1. (a) Car fi yw'r un 'na
   (b) Ble'r ych chi'n dod o?
   (c) Brawd o Gapel Bangor yw e.

2. (a) Ydych chi'n cweit siŵr?
   (b) Beth yw'r amser
   (c) Mae e ddim yma.

3. (a) Dyna gwestiwn caled.
   (b) Fe welais i e ddoe.
   (c) Mae llawer o nhw yno.

4. (a) Ble mae'n dod o.
   (b) Mae'n hollool rong.
   (c) Tybed ddaw e?

5. (a) Ffor odd e fi- ian y bore 'ma.
   (b) Rwy incleind i fod o'r un farn â John.
   (c) Roedd Gwyn yng Nghaerdydd Ddydd Sadwrn.

6. (a) Mae Alun yn ddeg mlwydd oed.
   (b) Mae'n mynd i Gaerdydd ar y tren.
   (c) Rydw i wedi notisho ma' pobl ddiog sy'n dwedd feelly.
Question 5. continued

7. (a) Mae tipyn o arian gen i yn y sefins banc.
   (b) Mae tipyn o laeth gen i yn y ffrij.
   (c) Mae tipyn o gaws gen i ar y bwrdd.

8. (a) Oedd y car yn frwnt?
   (b) Oes eisian petrol arnon ni?
   (c) Mae'r windsgrîn wedi torri.

9. (a) Mae ffermwrs yn gweithio'n galed iawn.
   (b) Dydw i ddim yn gwybod os oes rhai yma.
   (c) Mae wedi torri ei goes.

10. (a) Mae'n ceisio gwneud i fyny am ei gamgymeriad.
     (b) Mae'r bws yn pasio'i dŷ.
     (c) Mae pentost ofnadwy arna'i.

11. (a) Mae eisian afalau arna'i.
     (b) Mae'r car wedi torri lawr eto.
     (c) Trowch y golau 'na off.

12. (a) Ydych chi'n hoffi llaeth?
     (b) Rydw i'n licio llaeth.
     (c) Rydw i'n gweld y broblem.

13. (a) Wyt ti am e?
     (b) Wyt ti am y bara?
     (c) Wyt ti am y finegr?

This question was designed to assess the subjects' reaction to the different levels of interference. As can be seen, the sentences containing interference were arranged in groups of three and the subjects were asked to rate the sentences in each group against each other according to the standard of the Welsh in them. Thus, sentences could be marked 1, 2 or 3 according to how acceptable they were to the subjects, with 1 as the most acceptable. In addition, subjects were allowed
to rate sentences in a group as equally acceptable or equally unacceptable.

The groups of sentences were compiled on the following basis. Each group contained a control sentence which contained either no example of interference or a well-established lexical borrowing \((8 \text{ (a) car})\). In addition, groups 1, 2, 3 and 13 contained examples of colloquial Welsh with a view to comparing attitudes to interference and to non-standard usage.

Four broad categories of interference were chosen for purposes of comparison:-

\[\begin{align*}
(i) & \text{ Lexical Established (Lex}^\text{Est}) \\
(ii) & \text{ Lexical Non-Established (Lex}^\text{N-Est}) \\
(iii) & \text{ Syntactic-Translated English Idiom (Syn}^\text{EI}) \\
(iv) & \text{ Syntactic-Morphological (Syn}^\text{M})
\end{align*}\]

The first three of these were included in a group containing control and colloquial sentences viz Group 1 \((\text{syn}^\text{EI (1b)})\), Group 2 \((\text{Lex}^\text{N-Est (2a)})\) and Group 13 \((\text{Lex}^\text{Est (13c)})\). In addition, Group 3 contain control \((b)\) and colloquial \((c)\) sentences, together with a sentence that contained an established lexical borrowing \((\text{cwestiw})\) and an example of semantic extension \((\text{caled})\). Apart from these four groups, our main interest was to compare Syntactic \((\text{EI})\) and Lexical \((\text{N-Est})\) \((\text{Groups 4, 5, 11})\) and Lexical \((\text{Est})\) and Lexical \((\text{N-Est})\) \((\text{Groups 6, 7, 8, 12})\). The other groups involved Lexical \((\text{Est})\) and Syntactic \((\text{EI})\) \((\text{Group 10})\) and Syntactic \((\text{EI})\) and Syntactic \((\text{M})\) \((\text{Group 9})\). The small number of these latter combinations is to be accounted for by the fact that it was felt that more than twelve or thirteen groups would be tedious for the subjects. Attention was therefore concentrated on the potentially more interesting combinations \(\text{Syn}^\text{EI}/\text{Lex}^\text{N-Est}\) and \(\text{Lex}^\text{N-Est}/\text{Lex}^\text{Est}\).
The following tables set out the nature of the test (a) by group number and (b) by the type of combination involved.

(a)

<table>
<thead>
<tr>
<th>Group</th>
<th>Control</th>
<th>Colloquial</th>
<th>Lex_Est</th>
<th>Lex_N-Est</th>
<th>Syn_EI</th>
<th>Syn_M</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
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<td>2</td>
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<td>4</td>
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<td>11</td>
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<td>12</td>
<td>x</td>
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<td>13</td>
<td>x</td>
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<td></td>
<td></td>
<td>x</td>
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</tbody>
</table>

(b)

<table>
<thead>
<tr>
<th>Control</th>
<th>Colloquial</th>
<th>Lex_Est</th>
<th>Lex_N-Est</th>
<th>Syn_EI</th>
<th>Syn_M</th>
<th>Groups.</th>
</tr>
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<tr>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>(3,13)</td>
</tr>
<tr>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
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<td>(2)</td>
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<tr>
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<td>(1)</td>
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<tr>
<td>x</td>
<td>x</td>
<td>x</td>
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<td></td>
<td></td>
<td>(6,7,8,12)</td>
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<tr>
<td>x</td>
<td>x</td>
<td>x</td>
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<td></td>
<td></td>
<td></td>
<td>(4,5,11)</td>
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<tr>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>(9)</td>
</tr>
</tbody>
</table>

In addition, Groups 12 and 13 were constructed with some similarity of linguistic context in order to focus attention on the interference items included. In Group 12, this focusing took the form of including in the control sentence the Welsh alternative of the non-established lexical borrowing in the group.

12 (a) Ydych ch' i'n hoffi llaeth
(b) Rwy'n licio llaeth.
In Group 13, all three sentences are identical except for a single word, the third of which is an established borrowing.

13 (a) Wyt ti am e?
       (b) Wyt ti am y bara?
       (c) Wyt ti am y finegr?

Usage Tests³

The testing of interference usage presents considerable problems to the linguistic researcher. Although individual examples may be adequately described by methods based on the contrastive analysis of the two languages involved, the assessment of the individual's usage of interference is a much more difficult question.

Our problem lies in the fact that the spontaneous type of interference in which we are most interested is greatly reduced by all speakers in more formal situations such as a rigid structured interview whereas a more freely structured interview produces more disparate subject matter which does not lend itself to comparison. As with other linguistic tests, therefore, the basic problem lies in the fact that if any test of interference is perceived as such by subjects, the results obtained will be seriously affected.

Our aim, therefore, in designing a suitable test is twofold:-

(a) to make the purpose of the test as unobtrusive as possible
(b) to elicit examples of interference in a consistent context which are suitable for comparison from speaker to speaker.

Footnote 3: A copy of the relevant usage test paper is to be found at Appendix II.
The importance of the second of these two points cannot be stressed too much. For, the recording of representative samples of speech from individual speakers, no matter how restricted the subject matter, simply cannot provide a sound basis for the comparison of speakers' usage. With this in mind, it was necessary to frame the tests around a limited number of contexts (or a limited number of lexical items) where examples of spontaneous interference could be reasonably expected to occur.

On the basis of these principles, the following set of tests was framed and administered to the same groups of subjects as the questionnaire above but at a later date.

Test One - Word Association Test

A word association test has the obvious and immediate effect of detracting the subjects' attention from any idea that he is being questioned about his linguistic usage. In addition, the subjects' responses are to a large extent restricted to the semantic fields chosen for Part IV of the questionnaire.

Sixteen lexical items of the non-established type were chosen from a list of similar items obtained from a number of transcriptions of recordings of spontaneous speech. The sixteen items were as follows:

(1) joio (to enjoy), (2) ffaelu (to fail), (3) stiwendant (student), (4) rwm (room), (5) television, (6) lót, (7) licio (to like), (8) bathrwm (bathroom), (9) lectric (electricity), (10) bedrwm (bedroom), (11) rêlwe (railway), (12) rownd (round), (13) holide (holiday), (14) compleno (to complain), (15) cleimo (to climb), (16) watsio (to watch).

Word association tests have been used, of course, largely in psychology and psychiatry, to investigate
<table>
<thead>
<tr>
<th>Test One - Word Association Test</th>
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</thead>
<tbody>
<tr>
<td>1. ENJOY</td>
<td>(i) chwerthin...</td>
<td>(ii) hoffi...</td>
<td>(iii) plaser...</td>
</tr>
<tr>
<td>2. FAIL</td>
<td>(i) llwyddo...</td>
<td>(ii) trio...</td>
<td>(iii) methu...</td>
</tr>
<tr>
<td>3. STUDENT</td>
<td>(i) coleg...</td>
<td>(ii) prifysgol...</td>
<td>(iii) astudio...</td>
</tr>
<tr>
<td>4. ROOM</td>
<td>(i) gwesty...</td>
<td>(ii) waliau...</td>
<td>(iii) lolfa...</td>
</tr>
<tr>
<td>5. T.V.</td>
<td>(i) radio...</td>
<td>(ii) rhaglen...</td>
<td>(iii) set...</td>
</tr>
<tr>
<td>6. LOT</td>
<td>(i) digon...</td>
<td>(ii) arian...</td>
<td>(iii) gormod...</td>
</tr>
<tr>
<td>7. LIKE</td>
<td>(i) caru...</td>
<td>(ii) casáu...</td>
<td>(iii) ffrind...</td>
</tr>
<tr>
<td>8. BATHROOM</td>
<td>(i) baddon...</td>
<td>(ii) toiled...</td>
<td>(iii) tapiau...</td>
</tr>
<tr>
<td>9. ELECTRICITY</td>
<td>(i) golau...</td>
<td>(ii) gwifren...</td>
<td>(iii) batri...</td>
</tr>
<tr>
<td>10. BEDROOM</td>
<td>(i) lloft...</td>
<td>(ii) grisiau...</td>
<td>(iii) wardro...</td>
</tr>
<tr>
<td>11. RAILWAY</td>
<td>(i) trêf...</td>
<td>(ii) platfform...</td>
<td>(iii) gorsaf...</td>
</tr>
<tr>
<td>12. ROUND</td>
<td>(i) cylch...</td>
<td>(ii) trefi...</td>
<td>(iii) cerdded...</td>
</tr>
<tr>
<td>13. HOLIDAY</td>
<td>(i) twrist...</td>
<td>(ii) gwesty...</td>
<td>(iii) haf...</td>
</tr>
<tr>
<td>14. COMPLAIN</td>
<td>(i) grwgnach...</td>
<td>(ii) protestio...</td>
<td>(iii) achwyn...</td>
</tr>
<tr>
<td>15. CLIMB</td>
<td>(i) bryn...</td>
<td>(ii) mynydd...</td>
<td>(iii) i fyny...</td>
</tr>
<tr>
<td>16. WATCH</td>
<td>(i) teledu...</td>
<td>(ii) edrych...</td>
<td>(iii) gwylio...</td>
</tr>
</tbody>
</table>
a wide range of phenomena. Since its first use, over a century ago, by Sir Francis Galton (1879), the technique has been employed to probe the working of the mind of the individual, to establish general laws of thought and to predict performance in verbal learning experiments (cf Slobin, 1974). Its particular significance for the linguist has been in its use in attempts to explore the properties of the brain's lexical storage system (Kiss 1967, 1969) and various associative aspects of semantic theory (cf for example, Clark, 1968; Clifton, 1967; Deese, 1966; McNeill, 1966; Perfetti, 1967, 1968). An analysis of word association responses in terms of semantic features is provided by Clark (1970), who initially divides his responses along paradigmatic and syntagmatic lines. 'Paradigmatic' responses are those that fall in the same syntactic category as the stimulus; 'syntagmatic' responses are those that fall into other categories (1970 : 274). Clark posits the following four rules to account for paradigmatic responses.

(1) Minimal-Contrast Rule. If a stimulus has a common 'opposite' (i.e. an antonym), it will elicit that opposite more often than anything else. In terms of features, the sign of only one feature is changed. Examples of this kind are 'polar' adjectives (good vs bad) prepositions (up vs down) verb converses (buy vs sell) and so on. The rule can be strengthened on the basis of the place in the hierarchy (cf Bierwisch, 1970) or number of the features involved. For example, if 'man' were the stimulus, 'woman' would be the major contrast (lowest feature changed), 'boy' the minor contrast (higher feature changed) and 'girl' the double contrast (two features changed).

(2) Marking Rule. There is a greater tendency to change from, rather than to the marked term of a pair (for marked vs unmarked cf Lyons, 1968 : 79; 1977 : 305).
In other words, 'dogs' is more likely to elicit 'dog' than vice-versa.

(3) Feature-Deletion and -Addition Rule. Features may be deleted from the end of the list, generally producing superordinates (e.g. fruit from apple) or added to the list, generally producing subordinates (e.g. apple from fruit). Another feature that may be involved is (+ Cause) as in the pair 'kill', 'die', and many near-synonyms can be produced by the deletion or addition of a host of different features, e.g. house-home, odour-smell.

(4) Category-Preservation Rule. This rule tends to prevent syntagmatic responses by not changing features that are high on the list such as (+ Noun) or (+ Adjective).

Paradigmatic responses therefore tend towards the least change in the lowest feature.

Syntagmatic responses, on the other hand, are much less common and much more difficult to characterize in rules. Clark (1970) does, however, suggest the following two rules:

(1) Selectional Feature Realization Rule. Selectional features partially characterize the meaning of the potential context of a word. The rule works by adding features until a surface realization is obtained. In this way, 'boy' or 'girl' may be obtained as a response to 'young'.

(2) Idiom-Completion Rule. By this rule, an attempt is made to find an idiom of which the item is a part and produce the next main word. Examples of this type of stimulus-response are 'white, house'; 'black, bird'; 'how, now'. The rules might also be used to account for
many apparently paradigmatic responses, e.g. 'bacon, eggs'; 'bread, butter'.

Attempts have been made to assess the relative frequency of occurrence of words as responses to various stimuli and conversely of the various stimuli that will produce a certain response (cf Kent and Rosanoff, 1910; Deese, 1966). One comprehensive work in this area is the Word Association Thesaurus of George Kiss. It was this last work which we consulted in order to obtain suitable stimulus words for our chosen responses. Stimuli were in fact obtained by searching the thesaurus under the entries for the required responses given above (English version) and choosing three of the most common stimuli that produce that response. These were translated into Welsh for presentation purposes. (It was not felt that the language of presentation would markedly affect the responses obtained.) In addition, the common Welsh equivalents of three of the responses (2. TO FAIL, 14. TO COMPLAIN, 16. TO WATCH) as third-choice stimulus.

Here, therefore, are the stimuli chosen, together with a translation and an indication of the type of association involved. (cf above; p = paradigmatic; s = syntagmatic)
1. (ENJOY) (i)chwerthin (to laugh) (p3) (ii)hoffi (to like) (p3) (iii)pleser (pleasure) (s1)
2. (FAIL) (i)llwyddo (to succeed) (p1) (ii)troio (to try) (p3) (iii)methu (to fail) (tr)
3. (STUDENT) (i)coleg (college) (p3) (ii)prifysgol (university) (iii)astudio (to study) (s1)
4. (ROOM) (i)gwesty (hotel) (p3) (ii)wallau (walls) (p3) (iii)illofa (lounge) (p3)
5. (T.V.) (i)radio (radio) (p3) (ii)rhaglen (programme) (iii)set (set) (p3/s2)
6. (LOT) (i)digon (enough) (p3) (ii)arian (money) (s2) (iii)gormod (too much) (p3)
7. (LIKE) (i)caru (to love) (p3) (ii)casâu (to hate) (p1) (iii)ffrind (friend) (s1)
8. (BATHROOM) (i)baddon (bath) (p3) (ii)toiled (toilet) (p3) (iii)tapiau (taps) (p3)
9. (ELECTRICITY) (i)golau (light) (p3) (ii)gwifren (wire) (p3) (iii)batri (battery) (p3)
10. (BEDROOM) (i)llofft (upstairs) (p3) (ii)grisiau (stairs) (p3) (iii)wardrob (wardrobe) (p3)
11. (RAILWAY) (i)trên (train) (p3) (ii)platform (platform) (iii)gorsaf (station) (p3)
12. (ROUND) (i)cylch (circle) (s1) (ii)troi (to turn) (s2) (iii)cerdded (to walk) (s2)
13. (HOLIDAY) (i)twrist (tourist) (p3) (ii)gwesty (hotel) (p3) (iii)haf (summer) (p3)
14. (COMPLAIN) (i)grwgnach (to grumble) (p3) (ii)protestio (to protest) (iii)achwyrn (to complain) (tr)
15. (CLIMB) (i)bryn (hill) (s1) (ii)mynydd (mountain) (s1) (iii)ifyny (up) (s2)
16. (WATCH) (i)teledu (tv) (s2) (ii)edrych (to look) (p3) (iii)gwylio (to watch) (tr)
The stimuli were administered in the order set out above and the informants were given the usual instruction that they should answer rapidly, giving as their response the first word that came into their minds. Care was taken to administer all three stimuli for each item, even if the required response were prompted by the first or second stimuli. It was hoped that in this way two indices of interference usage might be obtained:

i) the ratio of required responses elicited by the stimuli

ii) the number of interfering forms obtained as a proportion of the total number of responses.

Test Two - Naming

As has been stated above in Chapter Three, certain topics are more likely to display examples of interference penetration than others. As a consequence, it seemed sensible to present informants with a naming exercise that was framed around certain topics. The four topics chosen were:

i) Parts of a car

ii) Items in the kitchen

iii) Rooms in the house

iv) Items on the farm.

Informants were asked to name as many items as they could under each heading.

Footnote 4: The obvious stimulus for this item (gwely (bed)) was not included here as it was felt that this was more likely to stimulate the Welsh equivalent response of ystafell wely.
Test Three - Cards

This test attempted to elicit interference usage in response to non-verbal stimuli. These non-verbal stimuli took the form of two sets of cards. The first of these consisted of nine cards each bearing a picture of a common, everyday item. The majority of these were household electrical appliances. The full list of these cards, together with the likely Welsh responses, is as follows.

(i) (Electric) Cooker - ffwrn/popty (trydan)
(ii) Hair Dryer - sychydd gwallt
(iii) (Electric) Iron - haearn smwddio
(iv) Tent - pabell
(v) Washing Machine - peiriant golchi
(vi) (Electric) kettle - tegell (trydan)
(vii) Refrigerator - oergell
(viii) Drinking glass - gwydr
(ix) Television - teledu

All the pictures used here were cut from a mail order catalogue and pasted onto postcards. Each informant was asked to state what was displayed on each card and was then shown each card in turn. Each answer was then written on the questionnaire sheet by myself as it was given. The second set of cards consisted of six cards and was concerned with numbers, times and colours which are three areas that are particularly susceptible to interference in Welsh. The contents of this second set of cards was therefore as follows.

(i) This first card bore the figure thirty-nine (39). The expected response in Welsh would be 'pedwar ar byntheg ar hugain" in the traditional numeral system or 'tri deg naw' in the new decimal system.
(ii) The second card in the set showed the figure seventy-three (73). The expected response in Welsh here would be 'tri ar ddeg a thrigain (traditional system) or 'saith deg tri' (decimal system).

(iii) The third card in the set bore the figure 209 (two hundred and nine). The expected Welsh responses here would be 'dau gant a naw' (traditional system) or 'dau gant naw (decimal system).

(iv) The fourth card in the second set displayed a clock face showing the time 'twenty-five to eleven'. The expected Welsh response would be "pum munud ar hugain i un ar ddeg"(traditional system) or 'dau ddeg pum munud i un deg un' (decimal system).

(v) The fifth card in the set also displayed a clock face showing on this occasion the time 'ten past four'. The expected Welsh response would be "deng munud wedi pedwar" (traditional system) or 'deg munud wedi pedwar' (decimal system).

(vi) The final card in the second set displayed two circles, one coloured green and blue. The expected Welsh response here would be "gwyrrdd" and "glas". (As explained above p 94,"glas" may also correspond to English "green" but generally only in respect of living things, e.g. trees, grass, plants etc.).

In the case of these cards, it was found more convenient to mark the questionnaire sheet only according to whether the response took the form of a native form (marked C (Cymraeg - Welsh)) or of an interfering form (marked S (Saesneg - English)). In addition, responses to cards (i) - (v) which used the decimal system were noted separately. Any extraneous responses were noted in full. As in the case of the first set of cards, all the cards in the second set were of postcard size.
Test Four - Plural Morphemes

As we have seen, one noted example of morphemic substitution in Welsh is that of the English plural morpheme {-s}. This has spread from its use with recent lexical borrowings to older borrowings and even certain native words. Informants were therefore asked to provide plural forms for some nine lexical items (all older borrowings with varying degrees of phonetic integration). It was hoped that the replies to these questions would give some answer to two related matters namely:

(a) the degree of productivity attaching to native plural morphemes
(b) the degree of spread of the English plural morpheme among different groups of speakers.

The nine lexical items incorporated in the test were as follows:

(i) cwsmer (customer) expected Welsh response cwsmeriaid;
(ii) jobyn (job) jobiau; (iii) artist (artist) artistiaid;
(iv) plismon (policeman) plismyn; (v) polisi (policy) polisiau; (vi) gwn (gun) gyniau; (vii) ffermwr (farmer) ffermwyr; (viii) twrci (turkey) twrciod; (ix) twrist (tourist) twristiaid.

As can be seen, a number of Welsh plural morphs may be expected (- (i)au, - (i)aid, -od, -wyr) together with a number of internal changes (e.g. plismyn, gyniau). Subjects responses were marked in full, noting both the nature of the plural morph used (if any) and any internal changes made.

Test Five - Translation

Lexical items were included for translation in order to
test informants' active vocabulary in certain fields and also their ability to use certain Welsh morphemes productively to produce the required word, (e.g. gwrth-(anti-), all- (ex-) cyd (co-), dat- (de-)). Earlier pilot tests suggested that certain subjects were less than happy about this activity and as a result certain items were included which it was felt intuitively would be familiar to most subjects and would therefore ease their discontent. The ten items listed, together with their Welsh equivalents were:

(i) antiseptic (gwrth-heintydd/gwrth-heintus); (ii) export (allforio); (iii) co-owner (cydberchennog); (iv) coincidence (cyd-ddigwyddiad); (v) wallpaper (papur wal); (vi) decentralize (datganoli); (vii) co-operate (cwydweithio); (viii) fire brigade (brigâd dân); (ix) post office (swyddfa'r post); (x) library (llyfrgell).

Answers given by informants were noted in full.

Test 6 - Sentence Completion

Subjects were presented with ten carefully constructed sentences from which a single word or phrase had been omitted. Subjects were asked to complete each sentence using one word as far as possible on each occasion. The sentences were framed to allow a limited number of sensible answers, each of which was considered to be a likely point of interference. Many of the points chosen for this test were the same as for the word association test above and were obtained from the same source.

The following sentences were therefore presented to each informant:

(i) Mae'n ...... ugain sigaret bob dydd (He ...... twenty cigarettes every day) smoc(i)o/(y)smygu (smokes) (ii) Mae'n nhw'n sôn am gau'r ..... o Aber i Bwlheli
Test Six (ii) continued

(They're talking about closing the ...... from Aber to (Pwllheli) rheilfor/relve/lein (railway/line).
(iii) Mae'r bachgen yna yn ...... yn y coleg (That boy's ...... in the college) myfyriwr/stiwdant/astudio/stydio (student/studying).
(iv) Mae'n mynd i Bwllheli ar ei .... (He's going to Pwllheli on his ....) gwyliau/holidays (holidays).
(v) Rwy'n hoffi ...... 'Heddiw' bob dydd (I like ...... 'Heddiw' (T.V. programme) every day) gwylio/wotsio/gweld (watch/see).
(vi) Rydyn ni'n siŵr o ...... 'r Wyddfa eleni (We're sure to ...... Snowdon this year) dringo/cleimo (climb).
(vii) Paris yw prifddinas ...... (Paris is the capital of ......) Y Ffrainc/Ffrans (France).
(viii) Bydda'i'n cael pensiwn ar ôl ...... (I'll get a pension after ......) ymddeol/riteiro/65 (retiring/65).
(ix) Mae'n anodd ...... pwy sy'n iawn (Its hard ...... whose right) gwybod/i wybod (to know).
(x) 'Roedd e'n hwyr yn cyrraedd am fod ei gar wedi ...... ar y ffordd. (He was late arriving because his car had ...... on the way) torri/torri i lawr (broken down).

Test 7 - Story

In this final test, an attempt was made to assess the comparative use of interference made by different groups of subjects in a context more extended than the single word answers which were largely elicited by previous tests. In order to maintain an element of control over the subject matter of the passages elicited, the subjects were presented with a series of six pictures which depicted a short story. These pictures which are shown at Figure 1 below were taken from Griffith (1976) and comprised the following.
Figure 1

(i) 

(ii) 

(iii)
Picture One. A man is attempting to start his car at the side of the road using a starting handle. A woman is sitting in the car and two men are walking along the pavement towards them.

Picture Two. The man has now raised the bonnet of the car and is looking at the engine. The two pedestrians have drawn level with the car and are looking at the man as he attempts to fix it.

Picture Three. The two passers-by and the woman who was in the car are now attempting to push-start the car. A bus is passing on the opposite side of the road.

Picture Four. All four have now given up their attempts to start the car and are in various states of exhaustion, either leaning against the car or at the side of the road. A van has drawn up on the opposite side of the road and the driver of the van is making his way towards them, waving and carrying something.

Picture Five. It is a can of petrol that he is carrying and the van driver pours the petrol into the car's tank while the others look on.

Picture Six. The man is now able to drive off and waves goodbye to those who have helped him as he goes.

It was hoped that this series of pictures would be able to elicit consistent and comparable data from subjects particularly in the field of the "motor car" which it has been seen before is an area ripe for the elicitation of examples of interference. It was further decided not to distract the subjects with the introduction of a tape recorder at this late stage in the interview and instead a check list was drawn up which included a number of items that were likely to be
elicited by each picture.

A note was made of the occurrence of each example of the following items.

**Picture One.** 'torri lawr' - a loan translation of the English phrase "to break down"

'cael breakdown' - "to have a breakdown"

- a straight substitution of the English item which is unintegrated and therefore of recent provenance.

'ffaelu' "to fail" - an integrated but non-established loan.

'starting handle' - an unintegrated, non-established loan.

'start(i)o' - "to start" an integrated but non-established loan.

'pafin/palmant' - 'pavement' an integrated, established loan, a non-integrated alternative was also possible here and a special note was to be made of any examples of these.

**Picture Two.** 'ffaelu' - "to fail" (see above)

'trio/trial' - "to try" an established, non-standard integrated loan.

'mendio' - "to mend" an established, non-standard integrated loan.

'injan' - "engine" a non-standard, integrated loan with acceptable alternative.

'bonet' - "bonnet" a non-standard, unintegrated loan with no acceptable Welsh alternative.

**Picture Three:** 'pwsio' - "to push" a non-standard integrated loan.

'bwst - "bus" an established integrated loan.

'pasio' - "to pass" a non-standard integrated loan - Welsh alternative = "mynd heibio i"
Picture Four.  'fan' - "van" an established integrated loan.

'stop(i)o' - "to stop" a non-standard integrated loan - Welsh alternative = "aros"

'can/tun' - "can/tin" (of petrol), established and integrated loans.

Picture Five.  'rhedeg allan/ma's' - "to run out (i.e. of petrol)" - a loan translation of the equivalent English phrase which is non-standard.

'petrol' - "petrol" an established integrated loan.

'tanc' - "tank" an established integrated loan.

Picture Six.  'starto' - "to start" (see above)

'ffarwelio' - "to bid farewell" an established word based on the established integrated loan 'ffarwel'.

'dweud"ta-ta"/dweud "gwdbei", "to say ta-ta, to say "goodbye". Examples of non-integrated non-standard loans.

'olreit' - "alright" a non-standard non-integrated loan.

'off' - "off" - a non-standard loan.

Space was left after each section and also at the bottom of the check list for the rapid inclusion of any items which might occur while the speaker was reciting his story. In addition, a section was included at the top of the list which was to note each subjects use of the terms 'car' and 'modur'. While both these items are well integrated and well established in the Welsh system, it was felt that it would be interesting to register the informants' use of these items in order to see if there was any differential use being made of them on the basis of those social factors under consideration.
The choice of location for the study was based entirely on the knowledge and experience of the researcher. I had spent a period of three years doing my first degree in the University College of Wales in Aberystwyth in Mid-Wales and I had also conducted a small research project in the surrounding area. I was therefore thoroughly familiar with the area and it was felt that my background knowledge of the town together with the numerous contacts that I had in the area would prove invaluable in the conduct of the project.

While settling for Aberystwyth as the general area in which the project was to be undertaken, the exact location of particular groups of informants in the area would naturally depend on the social variables to be considered in the selection of suitable subjects for the study. Before proceeding to discuss the selection of these informants, it would seem desirable to give a general description of the geographic and social characteristics of the area.

Aberystwyth is a small county town on the coast of Cardigan Bay at the point where the Rivers Rheidol and Ystwyth meet the sea. At the 1971 census, the town had a population of approximately 10,000 of whom some 4,500 spoke Welsh. The town's population rises and falls seasonally with the arrival and departure of large numbers of students and, in the summer, tourists. Indeed, the above census return contains a total of about 3,000 students, a much smaller proportion of whom speak Welsh than the native population of the town as a whole.

The economic and social life of the town revolves almost entirely around the college and tourist industry. All the other employment in the area centres on the provision of various services for these groups and the
town's inhabitants as a whole. There is little or no independent industry in the area. The fishing industry has declined considerably in recent years and the harbour is now largely geared to cater for the tourist industry and leisure activities.

Lines of communication between Aberystwyth and the outside world are not of the best. Aberystwyth is connected by road to South and South West Wales, by road to Mid Wales, and by road and rail to North and North East Wales and to the Midlands and North of England. The roads in question tend to be low in quality and communications therefore tend to be rather slow. This is particularly true of public transport.

Aberystwyth's largely rural hinterland is much more Welsh speaking than is the town itself. Indeed, some of the rural parishes in the area have Welsh speaking populations which are in the region of ninety per cent of the total population.

The rural hinterland consists entirely of isolated farming communities since the collapse of the silver and lead mining industries in the area at the end of the last century. These communities also provide a certain amount of the dormitory-style accommodation for Aberystwyth which was mentioned in an earlier chapter. Aberystwyth remains an important purchasing centre for a wide area, with regard to the whole range of goods above the basic household and food items.

Against this background, a choice had to be made of suitable informants. Unfortunately, the sampling methods of the various major English language socio-linguistic studies are of little practical assistance to us here (cf for example Labov, 1966; Shuy, Wolfram and Riley, 1967; Shuy, Baratz and Wolfram, 1969; Wolfram, 1969; and Trudgill, 1974).
The major social correlate that is used in these and other sociolinguistic studies is the social stratification of the various communities involved. Trudgill (1974), for instance, posits five factors on which he is able to formulate a social class index. These five factors are:

i) Occupation according to the listing given in the Registrar General's Classification of Occupations.

ii) Income according to both the amount and mode of payment.

iii) Education according to the level attained.

iv) Housing according to the age and type of the property concerned and whether it is council-rented, privately rented or owner occupied.

v) Locality - based on a subjective assessment of the relative status of different areas.

While it would be perfectly possible to adapt such an index to the social situation as it exists in Wales, there is no doubt that Welsh society, or more strictly Welsh speaking society, is structured differently to its English or American counterparts. One would not, of course, seek to deny that hierarchical structuring does exist in Welsh speaking society, particularly with the rise of a Welsh speaking middle class in the urban and surrounding areas. It is arguable, however, that this social stratification does not have the same importance as in English society. The reason for this is probably that this split is only of recent provenance. Previously, upward social mobility in Welsh society was accompanied by and large by a switch to speaking English. Linguistic differences along social lines have not therefore had a chance to become established.
Certain commentators have drawn attention to a potential societal split on the basis of social activities. D. Jenkins (1960), for instance, analyzes social stratification and mobility in Cardiganshire in terms of "bucheddau" or "ways of life". The basic theory behind this study is that these communities are split into two major groups on the basis of their different spheres of activity. The one group centres around the chapel and its ancilliary activities and as cymanfaedd ganu (hymn singing festivals), prayer meetings, Sunday schools and frequently Welsh speaking "eisteddfodau". The second group centres around more secular activities, the prime example of which is the public house.

Intuitively, the theory is very attractive and is similar in broad terms to the network theory (cf Boissevain, 1974) which has recently been brought to the fore by the work of Lesley Milroy on language use in Belfast (Milroy, 1980). The theory has, however, sparked some considerable debate on the nature of social stratification in rural Wales (cf, for instance, Plowman, Minchinton and Stacey, 1962; Day and Fitton, 1975; Williams, 1978). Unfortunately, "buchedd" has proved rather an elusive concept in various studies and Day and Fitton argue that the notion of "buchedd" has gained such a wide currency that the absence of clear cut "bucheddau" in these studies has been taken as evidence that a social change is taking place. In particular, they cite Lewis (1970), a study of the Cardiganshire village of Bow Street, who makes such a statement: "Welsh rural community in transition is one which the traditional buchedd system is being replaced by newer socio-economic values" (1970: 157).

In view of this uncertainty as to the relevance of the notion of "buchedd" in Welsh society, it would seem undesirable to make it the basis of our study. It was therefore decided to base our selection of informants
on two major parameters. The first of these parameters is the level of education attained by informants. This is a most important factor and involves a basic dichotomy with the split occurring at the 16+ level. The majority of those informants who attained this level would appear to have been likely to go on to further education. The second parameter involves a further subdivision of the non-educated group on a rural versus urban basis. Further extrapolations on the basis of age and sex were also subsequently possible but these factors were not used as prime parameters in the selection of suitable informants.

Obviously, the two major dichotomies proposed above namely educated versus non-educated and urban versus rural offer a much more clear cut social split than is normal in sociolinguistic studies. Furthermore, in an area like Aberystwyth, the identification of members of the three groups involved (i.e. educated, urban non-educated, rural non-educated) is relatively easy.

For ease of sampling, the selection of representatives of the educated group was restricted to two major groups of people. These were (i) the Welsh speaking members of the academic staff at the University College in Aberystwyth, and, (ii) Welsh speaking teachers at three local schools. These three schools were (a) Ysgol Gymraeg Aberystwyth, a Welsh medium primary school; (b) Ysgol Penweddig, a largely Welsh medium secondary level school and (c) Ysgol Penglais an English medium secondary school.

Two further extraneous factors were to be noted for this group of subjects. These are (i) whether the subjects are involved in the formal use of Welsh as a medium of instruction and (ii) whether the subjects are native or L2 speakers of Welsh. It was felt that both of these factors might well have an effect on the replies elicited.
On the other hand, the rural/urban dichotomy was not extended to this group.

The two non-educated groups, however, are not so clearly delineated but comprise broadly the ordinary inhabitants of (a) the town of Aberystwyth itself and (b) a rural community in the surrounding area. The rural community chosen for this particular study was the parish of Llangwyryfon. This isolated rural community is situated seven miles south-south-east of Aberystwyth and is connected with the outside world by only minor roads. The community does not comprise a village as such but consists instead of a number of isolated farms and homesteads spread over an area of some five square miles. Llangwyryfon is served by a small grocer/sub-post office, a garage, a church, a chapel and a primary school. Otherwise, it is entirely dependent upon the outside world with which communication via public transport is minimal there being only two buses to Aberystwyth every day (not Sunday). The population of Llangwyryfon at the 1971 census was 220 of whom 180 (i.e. 81.81%) were able to speak Welsh. Of these, there were fifteen who claimed to be able to speak only Welsh. The community can therefore be fairly considered a stronghold of the language in the area.

Sampling Techniques

The normal large-scale methods of sampling populations present problems where a sample is required of an undifferentiated section of a community. This is the case where a sample is required of one language population in a bilingual community. As the members of such a population are largely not distinguished overtly from the rest of the community by any factor other than the language they speak, it is difficult to obtain a suitable sample either by random or quasi-random methods (cf Moser and Kalton, 1971).
Researchers are left with a choice between two possible methods of solving this problem or alternatively they may employ a combination of the two. Firstly, they may, by various means, restrict the group from which the sample is to be taken as far as possible to the required population. Secondly, they may take a larger sample of the community than that required in the same proportion as the community as a whole is to the population under investigation. It is then possible to discard those members of the sample who do not fall within the target group.

The different target populations which we have chosen are more or less easily differentiated from the communities of which they form a part and we are therefore forced to employ slightly different strategies in order to obtain a suitable sample of each population.

The Welsh speaking members of the academic staff of the University College were easily differentiated. With the help of two Welsh speaking lecturers, it was possible to note on a list of members of staff in the college handbook those who were able to speak Welsh. 76 of the members of the academic staff were listed as being Welsh speaking at the time of sampling. In view of the relatively small size of the group of which the sample was required, a simple random selection of suitable informants from this group was therefore possible.

The 76 Welsh speaking members of staff were numbered and 24 subjects to whom questionnaires were to be distributed were selected by ballot. Allowance was made for a certain amount of failure to return questionnaires and in fact, seventeen questionnaires were returned completed. The performance tests were subsequently administered to those informants who returned their questionnaires. Of the seventeen who
replied, six either taught or were designated to provide instruction through the medium of Welsh. However, the majority of the remainder also stated that they would be prepared to discuss work with students in Welsh either informally or in tutorials. A list of these seventeen informants is included at Appendix III below.

The Welsh speaking teachers in the two Welsh medium schools, Ysgol Gymraeg Aberystwyth and Ysgol Penweddig, were, of course, fully differentiated as all the teachers in these schools were Welsh speaking. In the English medium school (Ysgol Penglais), on the other hand, it was possible to delineate the target group by using the same strategy as for the University College sample, i.e. by reference to other members of staff.

A full sample was taken of the teachers of the Ysgol Gymraeg and 13 questionnaires were distributed. Random samples were taken of the Welsh speaking staff of the other two schools and 6 and 10 questionnaires were distributed at Ysgol Penweddig and Ysgol Penglais respectively. Initial contacts were made with the headmaster of each school and the questionnaires were distributed through them. Of those questionnaires distributed, 11 were returned from the Ysgol Gymraeg, 3 from Ysgol Penweddig and 6 from Ysgol Penglais. As with the college staff above, the performance tests were later administered to those subjects who returned questionnaires. A list of the subjects involved is provided in the Appendix.

To take a random sample of a town with a population of 10,000 would obviously be an impractical exercise. In addition, when the target group is an undifferentiated 4,500 strong section of that population, a quasi-random sample would not be practicable either. As pointed out above, in any random or quasi-random sample, it would be necessary in these circumstances to take a sample of
more than twice the number of informants required in order to obtain the correct number of Welsh speakers.

As a result of this, it was decided to limit the population from which the target group was to be obtained by concentrating on a number of individual streets in the centre of Aberystwyth where it was felt that there would be found a higher level of Welsh speakers and fewer university-educated speakers. The streets chosen were Crynfyryn Buildings, Crynfyryn Row, Greenfield Street and Stanley Road and their situation is shown on the street map at Appendix V below.

Suitable informants were discovered by a door-to-door canvas of the above streets and both questionnaires and performance tests were administered at a single interview. A high refusal rate was obtained but in the event 14 questionnaires and performance tests were completed. A list of these subjects is provided at Appendix III.

Where the target group forms over 80% of the total population involved, the problems of quasi-random sampling are much less complex. For ease of travel, sampling was restricted to those inhabitants of the fourteen farms and houses which lie on or just off the minor road which runs for a distance of some three miles from east to west across the parish of Llangwyryfon between the villages of Llanrhystyd and Lledrod. In view of the smallness of this group it was possible to choose 15 informants by a random selection. Questionnaires and performance tests were both administered simultaneously to informants in a single interview. The names of this final group of informants are listed in Appendix III.

In conclusion, it should be pointed out that the two non-educated groups tended to have a greater bias towards the older generation. There would appear to
be four basic factors contributing towards this. Firstly, the streets and areas chosen for sampling are characterized by a higher percentage of older inhabitants. Secondly, the older generation tends to be less well-educated. Thirdly, a higher percentage of Welsh speakers are in this older age group. Finally, older people tended to be both more willing to submit themselves to questioning and more available to be interviewed.
CHAPTER 6

RESULTS AND DISCUSSION I
The following two chapters will set out the results obtained from the administration of the two instruments described above, namely (a) the attitude questionnaire and tests and (b) the usage tests. They will also pass some initial comments on the results obtained. In our final chapter, we shall attempt to draw together some of the major themes running through the two sets of results and to highlight the importance of the results as a whole.

In order for tests to be usefully explanatory, it is necessary for us to be able to say how events, subjects, instances etc. may be judged to be similar (i.e. how valid they are) and secondly how applicable the results are to those similar cases in general (Davies, 1977). Davies describes how the validity of a test or an experiment is guaranteed by the random selection of a sample from a population and by the organization of the results and the subsequent description of the sample in relation to that population through descriptive statistics. The applicability of the results to a general situation attempts to distinguish a particular finding from chance through inferential statistics.

We have already considered the random selection of subjects in the previous chapter and now we must turn to the other aspects of the validity and applicability of the tests. Our main procedure will be to reduce the results of individual questions to the form of "contingency tables" for the easy comparison of those results. Where appropriate results were tested by means of the $X_2$ test of significance for both outcomes and intergroup differences. $X_2$ values are quoted only where they show significant differences and these largely relate to intergroup correlations. In only a limited number of cases (namely questions I.1, I.7 and I.9) where a $X_2$ value is quoted is the comparison made between outcomes and it is perhaps not surprising that a high value of $X_2$ is achieved.
The Questionnaire

Part One, Question One
In your opinion, which language should be the official language of Wales?
(i) English  (ii) Welsh  (iii) both

<table>
<thead>
<tr>
<th>Lecturers</th>
<th>Teachers</th>
<th>Aberystwyth</th>
<th>Llangwyryfon</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>1</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>ii)</td>
<td>1</td>
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<td>3</td>
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<td>iii)</td>
<td>15</td>
<td>11</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>20</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>

These results reveal a significantly high level of support for the general use of dual official languages in Wales and only minimal support for the official use of the English language alone ($X^2 = 56.09$ $p < 0.001$).

The results from the Teacher (T) group are somewhat different in that they display a marked tendency towards support of Welsh as the sole official language. A similar but less marked tendency is to be found among the Llangwyryfon (Llg) subjects.

Although the resulting samples are too small for significant conclusions to be drawn, a split of the T group between those teachers who use Welsh as a medium of education and those who do not may be suggestive:

<table>
<thead>
<tr>
<th>T (W. medium)</th>
<th>T (E. medium)</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
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<tr>
<td>ii)</td>
<td>8</td>
<td>1</td>
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<td>5</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>6</td>
</tr>
</tbody>
</table>
Support for Welsh as the sole official language is almost exclusive to those members of the T group who use Welsh as a medium.

Question Two
Do you think that the following ought to be:–
(a) monolingual English,  (b) monolingual Welsh,  
(c) bilingual.

i) the Welsh Assembly proposed by the Government  
ii) the Welsh Office

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
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<td>0</td>
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<td>b)</td>
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<td>1</td>
<td>1</td>
<td>4</td>
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<tr>
<td>c)</td>
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<td>17</td>
<td>20</td>
<td>14</td>
<td>14</td>
<td>65</td>
</tr>
</tbody>
</table>

The same set of responses was obtained both for items (i) and (ii) and revealed a clear propensity among all groups to favour bilingual usage in both fields.

(iii) local council meetings in English speaking areas.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
</tr>
</thead>
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<td>a)</td>
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<td>3</td>
<td>9</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>b)</td>
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<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>c)</td>
<td>11</td>
<td>16</td>
<td>5</td>
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<td></td>
<td>17</td>
<td>20</td>
<td>14</td>
<td>14</td>
<td>65</td>
</tr>
</tbody>
</table>

Footnote 1: For ease of reference, the following key will be used to refer to the four groups of subjects.

L = Lecturers  
T = Teachers  
A = Aberystwyth  
Llg = Llangwyryfon
There is a clear high overall support for bilingualism in this field in all groups except Aberystwyth (A) where English-only predominates to a significant degree.

<table>
<thead>
<tr>
<th>A</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>39</td>
<td>44</td>
</tr>
<tr>
<td>14</td>
<td>51</td>
<td>65</td>
</tr>
</tbody>
</table>

$X^2 = 9.48$
p < 0.01

Further significant differences emerge when comparing English medium Lecturers (L) and Teachers (T) with those who use Welsh as their medium.

<table>
<thead>
<tr>
<th>L/T (E. medium)</th>
<th>L/T (W. medium)</th>
<th>Total</th>
</tr>
</thead>
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<td>8</td>
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<td>9</td>
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<td>0</td>
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</tr>
<tr>
<td>8</td>
<td>19</td>
<td>27</td>
</tr>
<tr>
<td>16</td>
<td>21</td>
<td>37</td>
</tr>
</tbody>
</table>

$X^2 = 10.45$
p < 0.01

English-medium Lecturers and Teachers are clearly split equally between the use of English alone or both languages in such council meetings whereas their Welsh-medium counterparts are clearly in favour of using both languages.
(iv) council meetings in Welsh speaking areas.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b)</td>
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<td>4</td>
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<tr>
<td>c)</td>
<td>13</td>
<td>7</td>
<td>8</td>
<td>10</td>
<td>38</td>
</tr>
</tbody>
</table>

17 20 14 14 65

Overall results favour the dual official use of English and Welsh in these situations. There is high support of Welsh only among all groups but particularly in group T ($X^2 = 6.43 \ p < 0.02$)

Once again, there is a further marked tendency among Welsh-medium L and T subjects to advocate Welsh as the sole medium in these contexts.

<table>
<thead>
<tr>
<th>L/T (Welsh)</th>
<th>L/T (English)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b)</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>c)</td>
<td>7</td>
<td>13</td>
</tr>
</tbody>
</table>

21 16 37 $X^2=8.47 \ p<0.01$

v) local council administration in English speaking areas.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
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<td>2</td>
<td>9</td>
<td>1</td>
<td>16</td>
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<td>b)</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>c)</td>
<td>13</td>
<td>18</td>
<td>5</td>
<td>13</td>
<td>49</td>
</tr>
</tbody>
</table>

17 20 14 14 65
These figures mirror the results obtained for (iii) above with a marked response in favour of bilingualism in this situation in all groups except group A where the position is reversed. It is noticeable that the 6 informants from the L and T group favouring the use of English as the sole medium of local council work fall into the English medium sub-groups.

(vi) local council administration in Welsh speaking areas.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
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<td>0</td>
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</tr>
<tr>
<td>b)</td>
<td>2</td>
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</tr>
<tr>
<td>c)</td>
<td>15</td>
<td>7</td>
<td>8</td>
<td>11</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>20</td>
<td>14</td>
<td>14</td>
<td>65</td>
</tr>
</tbody>
</table>

These results again closely mirror those obtained in the corresponding question (iv) regarding the official language of local council meetings. That is to say, there is an overall tendency in favour of bilingualism in this context which is marginal in group A and reversed in group T. Significant differences are again revealed between the English and Welsh medium groups of Lecturers and Teachers.

<table>
<thead>
<tr>
<th></th>
<th>L/T (Welsh)</th>
<th>L/T (English)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b)</td>
<td>13</td>
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<tr>
<td>c)</td>
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<td>14</td>
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<tr>
<td></td>
<td>21</td>
<td>16</td>
<td>37</td>
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</tbody>
</table>

X² = 9.21
p < 0.01
(vii) Official forms.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
</tr>
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<tbody>
<tr>
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<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>c</td>
<td>16</td>
<td>20</td>
<td>13</td>
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<td></td>
<td>17</td>
<td>20</td>
<td>14</td>
<td>14</td>
<td>65</td>
</tr>
</tbody>
</table>

The support for bilingual official forms is almost unanimous.

(viii) Road signs.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
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<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
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<tr>
<td>c</td>
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<tr>
<td></td>
<td>17</td>
<td>20</td>
<td>14</td>
<td>14</td>
<td>65</td>
</tr>
</tbody>
</table>

Once again, there is very strong support for bilingual road signs among all groups but with a substantial minority in favour of Welsh-only in the T group which has, to date, consistently produced the most pro-Welsh results. All the Welsh-only responses in relation to this question were found in the Welsh medium sub-group.
(ix) Lawcourts.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
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<tr>
<td>c)</td>
<td>17</td>
<td>20</td>
<td>14</td>
<td>14</td>
<td>65</td>
</tr>
</tbody>
</table>

All groups gave totally unanimous support for dual official languages in the legal system.

(x) University courses.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
</tr>
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<tbody>
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<td>1</td>
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<tr>
<td>c)</td>
<td>17</td>
<td>19</td>
<td>13</td>
<td>14</td>
<td>63</td>
</tr>
</tbody>
</table>

Once again, virtual unanimity is displayed among all groups for bilingualism in this context.

Question 3. In your opinion, where is the best form of Welsh to be found?

(i) Bible  (ii) Chapel  (i) Bible  (ii) BBC  (iii) BBC  (iv) Books  (v) Newspapers  (vi) Spoken language  (vii) Elsewhere

In this instance, informants were allowed to indicate support for more than one category if they so wished.
The answers to this question display a generally mixed response but these divide clearly between L and T groups on the one hand and A and Llg groups on the other in their favouring formal/written and colloquial speech respectively.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
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<td>7</td>
<td>14</td>
<td>4</td>
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<tr>
<td>(ii)</td>
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<tr>
<td>(iii)</td>
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</tr>
<tr>
<td>(vii)</td>
<td>1</td>
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<tr>
<td>Total</td>
<td>23</td>
<td>20</td>
<td>14</td>
<td>13</td>
<td>70</td>
</tr>
</tbody>
</table>

The answers to this question display a generally mixed response but these divide clearly between L and T groups on the one hand and A and Llg groups on the other in their favouring formal/written and colloquial speech respectively.

<table>
<thead>
<tr>
<th></th>
<th>L/T</th>
<th>A/Llg</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal (i-v,vii)</td>
<td>38</td>
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<td>51</td>
</tr>
<tr>
<td>Colloquial (vi)</td>
<td>5</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>27</td>
<td>70</td>
</tr>
</tbody>
</table>

\[ X_2 = 13.56 \]
\[ p < 0.001 \]

A and Llg informants are significantly more favourable towards a more colloquial standard of speech.

Question 4. In general, do you think that the standards of spoken Welsh have deteriorated during your lifetime?

(i) Yes  (ii) No
These results reveal a clear and significant tendency for the L and T groups to be sensitive to changes in colloquial Welsh. This situation is reversed in the A and Llg groups.

We shall see below that this split is important when we come to correlate this result with others.

Question 5A. If so, where is that deterioration to be found:

(i) faulty grammar
(ii) the use of too many English constructions
(iii) faulty pronunciation
(iv) the use of too many English words
(v) the use of too many English idioms

Once again, informants were allowed to mark more than one category or to suggest further points of deterioration.
Only one informant from the L group availed himself of this latter opportunity.

Almost equal weight was given by L and T informants for constructional, idiomatic and lexical interference with high markings also for faulty grammar, particularly among T subjects. In groups A and Llg, however, the tendency is for lexical interference alone to be remarked upon.

Question 5B I. If not, do you think nevertheless that the English language has too much influence on Welsh?

(i) Yes  (ii) No

<table>
<thead>
<tr>
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<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
</tr>
</thead>
<tbody>
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<td>3</td>
<td>7</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
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</tr>
<tr>
<td></td>
<td>6</td>
<td>3</td>
<td>9</td>
<td>10</td>
<td>28</td>
</tr>
</tbody>
</table>

A large majority of subjects answering this question agree that despite their belief that there is no overall fall in spoken standards, English does indeed have too much influence on Welsh. These replies throw an interesting light on peoples' perceptions of English-Welsh interference for the feeling here seems to be that English elements used in Welsh are in some way not part of the language.

Question 5B II. If so, where is that influence to be seen?

(i) vocabulary  (ii) grammar  
(iii) pronunciation (iv) idioms
As with question 5A above, the results obtained tend toward vocabulary and idioms which are equally weighted in group L but vocabulary is again marked very heavily in both A and Llg groups. The results suggest not only that A and Llg subjects are more sensitive to lexical interference but also that they are relatively unaware of other kinds of interference.

Question 6. Put the following methods in order according to their effectiveness for improving language standards.

(i) teaching the language more effectively in schools.
(ii) more bilingual schools.
(iii) more Welsh language programmes on radio or television.
(iv) devolution.
(v) pressure from television or the press.

<table>
<thead>
<tr>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>5</td>
<td>0</td>
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<td>8</td>
</tr>
<tr>
<td>(ii)</td>
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<td>1</td>
</tr>
<tr>
<td>(iii)</td>
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<tr>
<td>All</td>
<td>11</td>
<td>3</td>
<td>9</td>
<td>12</td>
</tr>
</tbody>
</table>

Clear unanimity of results is displayed here with but one
minor variation in the L group as to the relative importance for language standard maintenance of the factors listed.

Question 7. Do you think that the Welsh language is adequate for use in a modern technological society?

(i) Yes  (ii) No

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>(ii)</td>
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<td>1</td>
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</tr>
<tr>
<td></td>
<td>17</td>
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<td>14</td>
<td>14</td>
<td>65</td>
</tr>
</tbody>
</table>

\[ X_2 = 20.68 \]
\[ p < 0.001 \]

Clearly, a strong majority of subjects in all groups except L consider Welsh to be adaptable for technological purposes. In that L group, the results are much more closely split.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>Other</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>9</td>
<td>41</td>
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</tr>
<tr>
<td>(ii)</td>
<td>8</td>
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</tr>
<tr>
<td></td>
<td>17</td>
<td>48</td>
<td>65</td>
</tr>
</tbody>
</table>

\[ X_2 = 7.47 \]
\[ p < 0.01 \]

The split between Welsh and English medium lecturers is again revealing.
This further split plainly evidences the fact that almost all those L subjects who find Welsh inadequate fall into the English medium group. Their feeling that Welsh is not adaptable to the modern world is interesting in that it is these very subjects who are largely involved in those areas such as science and economics where the problems of adaptation are most keenly felt and who are daily aware of those problems.

Question 8. If not, how would it be possible to make it adequate?

(i) by coining new words from Welsh resources
(ii) by borrowing English words
(iii) it would not be possible

More than one response was allowed from each subject but the sample is really too small for significant conclusions to be drawn. Of the results obtained, however, the majority seem satisfied that Welsh resources are adequate for innovation.
Question 9. Is it important to speak good Welsh.

(i) very important  (ii) fairly important  (iii) unimportant.

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\[ X_2 = 80.85 \]
\[ p < 0.001 \]

A large majority of all subjects significantly favour the proposition that it is very important to speak good Welsh.

Question 10. Are you satisfied with the way in which you yourself speak Welsh.

(i) very satisfied  (ii) fairly satisfied  
(ii) neither satisfied or dissatisfied  (iv) rather dissatisfied  
(v) very dissatisfied

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As an index of linguistic insecurity, the results of this question appear to suggest a degree of modesty rather
than insecurity. Insecurity is rather more marked among groups L and T.

Part Two

Question 1. How often do you listen to Welsh programmes on the radio or television?

(i) a number of times each day
(ii) about once a day
(iii) a number of times each week
(iv) about once a week
(v) very infrequently
(vi) not at all
(vii) no radio or television set.

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There is clearly a high degree of attendance to Welsh language radio and television programmes among all four groups of subjects.

Question 2. What do you think of the kind of Welsh spoken on radio and television?

(i) very good  (ii) fairly good
(iii) adequate  (iv) artificial
(v) rather bad  (vi) very bad.
The results to this question display a wide range of feeling towards media Welsh but with a tendency towards the more favourable end of that range.

Question 3. Do you think that BBC Welsh has affected the way you yourself speak Welsh.

(i) not at all (ii) a little (iii) very much.

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The results reveal a strong overall feeling that BBC Welsh has had no effect on individual speakers' performance. Strangely, however, a stronger feeling of some effect is felt in the L group and this is almost entirely among the English medium sub-group.
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\[ X_2 = 7.18 \]
\[ p < 0.05 \]

**Question 4. Do you read Welsh books?**

(i) very often  
(ii) fairly often  
(iii) sometimes  
(iv) rather infrequently  
(v) not at all

This question displays a fairly even spread of results. These tend towards the higher level of usage in this area in all groups except Llg.

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|    | 17 | 20 | 14 | 14 | 65 |

The split between English and Welsh medium L and T groups again reveals significant differences.
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\[ X^2 = 11.91 \]
\[ p < 0.02 \]

It is not, of course, surprising that the Welsh medium L and T groups use Welsh books a great deal as this is an intrinsic part of their work. The corresponding English medium groups on the other hand are closely akin to those of the Llg group. The A group have what is perhaps a surprisingly high incidence of Welsh reading.

Question 5. Do you read Welsh newspapers or magazines?

(i) very often (ii) fairly often
(iii) sometimes (iv) rather infrequently
(v) not at all

This is an interesting result in comparison with that of Question 4 immediately above.
Here the significant differences lie between the L and T groups on the one hand and the A and Llg groups on the other.

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$x_2 = 32.33$
$p < 0.001$

Part Three
Question 1. Which of the following institutions does the most to secure the future of the Welsh language?
(i) Plaid Cymru   (ii) Cymdeithas yr Iaith
(iii) The Urdd

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Subjects were here allowed to give more than one response

Of the three groups named, support is clearly strongest for the non-political agency among them. Support for Plaid Cymru is marginally stronger in the L group, particularly in the Welsh medium sub-group.
Question 2. Would you consider supporting Cymdeithas yr Iaith?

(i) under any circumstances
(ii) only if it did not involve violence
(iii) only if it did not involve breaking the law
(iv) not at all.

The overall lack of support for Cymdeithas yr Iaith is particularly plain in groups A and Llg.

\[ X_2 = 14.78 \]
\[ p < 0.01 \]
The English-Welsh medium splits presents another significant distinction.

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\[ X_2 = 10.33 \]
\[ p < 0.02 \]

The English medium groups are plainly much closer to the scores of Llg and A.

Question 3. Have you supported Cymdeithas yr Iaith actively?

(i) Yes       (ii) No

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The vast majority of the informants have not engaged in active support of Cymdeithas yr Iaith but the majority of those who have lie in groups L and T and furthermore all of these lie in the Welsh medium sub-group.
Do you favour:

(i) complete independence for Wales
(ii) self-government within the UK with the ability to raise taxes
(iii) devolution as the government is suggesting with an advisory council
(iv) no change in the present situation.

The L and T groups clearly favour a greater degree of separation for Wales, either in the form of independence or self-government. Groups A and Llg on the other hand tend to favour no change.
Question 5. How important are the following to Wales? Place a tick in the appropriate box: (i) more industry for Wales, (ii) more jobs in rural areas, (iii) better roads, (iv) the restoration of the Welsh language, (v) more bilingual education, (vi) more jobs in industrial areas, (vii) a separate Welsh television channel, (viii) less inflation, (ix) devolution, (x) better education opportunities.

Subjects were asked to place their tick in one of four boxes which were marked "very important", "fairly important", "not very important", "completely unimportant" and in order to obtain a composite group score for each of the ten factors listed, four, three, two and one point were given for a marking in each box respectively. The following table gives the resultant group score, together with the average score for each factor. (The relative ordering of the factors is given in brackets)
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9) 4L 11 11
A number of major themes can be discerned in the above results. Firstly, there is a consistently higher rating for the following factors: "more industry for Wales", "more jobs in rural areas", "the preservation of the Welsh language" and "less inflation". On the other hand, the following factors are consistently marked less favourably: "devolution", "a separate Welsh television channel", "more jobs in industrial areas".

With regard to the score obtained in relation to the Welsh language, it is notable that this item is marked consistently lower by L subjects. Indeed, 11 of these subjects considered the preservation of the language only fairly important compared with 4 from group T, 0 from Group A and 1 from group Llg. Of these 11 L subjects, 10 were in the English medium sub-group.

Question 6. In your opinion, how important is it that Welsh continues as a spoken language?
(i) very important (ii) fairly important
(iii) not very important (iv) completely unimportant.

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There is almost overwhelming support for the proposition that the maintenance of the language is very important and it is clearly very interesting to compare this result with that obtained for an almost identical item in the previous question. Once again it is the L (E) sub-group that is the major source of less strong support although
the difference is considerably less marked in this instance where the sub-group score is (i) 5, (ii) 4, (iii) 0, (iv) 1. It seems likely that it is the more exposed nature of this latter question that has caused some subjects to fall in line with the majority view common to all groups. It is arguable, therefore, that it is the former result that represents a truer reflection of sub-group opinion.

Question 7. In your opinion how likely is it that the Welsh language will continue as a spoken language in the future?

(i) very likely  (ii) fairly likely
(iii) rather unlikely (iv) very unlikely

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16 (INR) 20 14 13 (INR) 63

The overall results display a fair degree of confidence in the future survival of the Welsh language and this is stronger in the A/Llg grouping.
Of the L/T group, it is the English medium sub-group which are less confident as to the future of the language.

**Question 8. Do you think Welsh should be compulsory in schools?**

(i) in every area  (ii) only in Welsh areas  (iii) not at all.

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\[ X^2 = 10.18 \]
\[ p < 0.01 \]

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</tbody>
</table>

<table>
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<th>Llg</th>
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</thead>
<tbody>
<tr>
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<td>17</td>
<td>5</td>
<td>9</td>
<td>40</td>
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<tr>
<td>7</td>
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<tr>
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<td>1</td>
<td>5</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>17</td>
<td>19(INR)</td>
<td>14</td>
<td>14</td>
<td>64</td>
</tr>
</tbody>
</table>
There is strong support for compulsory Welsh in some schools in Wales in all groups. Only in group A is there a sizeable minority against. Groups T and Llg favour compulsory Welsh in all areas whereas those subjects in groups L and A who favour the proposition are almost equally split between those who favour compulsory Welsh in all areas and those who would prefer to see it in Welsh areas only.

Question 9. If it were necessary for a child to choose between Welsh and French which one ought he to choose?

(i) Welsh  (ii) French

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<th>All</th>
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<tbody>
<tr>
<td>(i)</td>
<td>10</td>
<td>16</td>
<td>13</td>
<td>12</td>
<td>51</td>
</tr>
<tr>
<td>(ii)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
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<tr>
<td></td>
<td>11(6NR)</td>
<td>17(3NR)</td>
<td>14</td>
<td>13 (INR)</td>
<td>55</td>
</tr>
</tbody>
</table>

These results demonstrate almost unanimous support among all four groups for choosing Welsh over French in schools.

Part Four

Question 1. Do you use the following words in Welsh (a) all the time (b) sometimes (c) not at all.

Question 2. How would you describe the same words.

a) completely acceptable
b) undesirable but there is no alternative
c) completely unacceptable.

The results for these two questions have been set out in a single set of tables with the tables constructed on the basis of the data for each word used in the tests.
The U and A headings under each group represent the Usage (Question 1) and Acceptability (Question 2) results respectively.

(i) HELPU (to help)

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<tr>
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<td>A</td>
<td>16</td>
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<td>A</td>
<td>1</td>
<td>(c)</td>
<td>0</td>
<td>A</td>
<td>0</td>
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<tr>
<td>(c)</td>
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<td>A</td>
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</tr>
</tbody>
</table>

This established alternative loan is almost unanimously used and found completely acceptable by all groups.

(ii) CLYFAR (clever)

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<td>A</td>
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<td>A</td>
<td>6</td>
<td>(c)</td>
<td>9</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>(c)</td>
<td>1</td>
<td>A</td>
<td>4</td>
<td></td>
<td></td>
<td>A</td>
<td>1</td>
</tr>
</tbody>
</table>

There is a mixed response to both questions relating to this word as between the L and T groups on the one hand and the A and Llg on the other. Whereas the A and Llg subjects find the word completely acceptable and use it almost unanimously, the L/T response is much more mixed. On the whole, the subjects find the word acceptable but use it only irregularly themselves.
(iii) PAROD (ready)

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<tr>
<td>A</td>
<td>14</td>
<td>14</td>
<td>14</td>
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</tr>
</tbody>
</table>

This control word which is in fact an early borrowing from Latin ('paratus') is found completely acceptable and is used unanimously by all subjects.

(iv) HET (hat)

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<tr>
<td>A</td>
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</tr>
</tbody>
</table>

These results display unanimous use of the word and agreement as to its complete acceptability among A and Llg subjects. However, although L and T subjects are almost as equally unanimous in respect of the acceptability of this item, a small number of subjects appear to have doubts as to their usage of the word. In view of the extreme uncommonness of the native alternative ('diddosben'), it seems likely that these few subjects are reflecting the actual degree of their usage of the word rather than their potential usage.
(v) CICIO (to kick)

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<tr>
<td>(a)</td>
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<tr>
<td>(b)</td>
<td>3</td>
<td>5</td>
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<tr>
<td>(c)</td>
<td>0</td>
<td>0</td>
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<td>0</td>
</tr>
</tbody>
</table>

Once again, this item is found acceptable unanimously by groups A and Llg and almost so by group T. Only group L have slight misgivings as to the acceptability of the item.

(vi) MIWSIG (music)

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<tr>
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<tr>
<td>(a)</td>
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<td>(b)</td>
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<td>0</td>
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<td>1</td>
</tr>
<tr>
<td>(c)</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

In comparison with the unanimous approval of A and Llg, the L and T groups provide an interesting variation in their assessments of usage and acceptability. Both groups indicate levels of usage which are lower than the assessed acceptability of this established item.

(vii) JOIO (to enjoy)

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<tr>
<td>(c)</td>
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<td>16</td>
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</tbody>
</table>
This is the first of the non-established items and provides the most interesting spread of results to date. The non-established nature of the loan is clearly reflected in the unacceptability markings of all four groups. This unacceptability is largely mirrored in the usage markings of both L and T but in the case of groups A and Llg, the situation is rather different. Here we receive our first indication of linguistic insecurity when subjects from both groups, but especially Llg, acknowledge usage of an item which is generally considered unacceptable. A composite score for both questions reveals significant differences between the two pairs of groups i.e. L/T and A/Llg. \( \chi^2 = 12.46 \ p < 0.01 \)

(viii) LOT (lot)

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<td>U A U A U A</td>
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<tr>
<td>(a)</td>
<td>8 8 4 2 11 12 13 12</td>
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<tr>
<td>(b)</td>
<td>6 2 10 4 2 0 1 0</td>
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</tr>
<tr>
<td>(c)</td>
<td>3 8 6 14 1 2 0 2</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

The second non-established loan displays a somewhat different result pattern. The item is used consistently by groups A and Llg who also find it largely acceptable. In L and T, however, a moderate degree of usage contrasts with a more adverse assessment of acceptability particularly on the part of T subjects. It is the L/T grouping which displays an element of insecurity here.
(ix) STESION (station)

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<th>Llg</th>
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<tr>
<td>A</td>
<td>8</td>
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This third non-established loan displays a pattern of results which is very similar to LOT above but with marginally lower acceptability among A and Llg and marginally more frequent usage on the part of L.

(x) FFRIJ ('fridge')

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<tr>
<td>A</td>
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<td>14</td>
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</tbody>
</table>

This non-established/non-assimilated item is found acceptable and used widely by all groups except T. In the latter, there is displayed a lower degree of usage but a more marked degree of unacceptability.

(xi) MYND (to go)

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<tr>
<td>A</td>
<td>17</td>
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</tbody>
</table>

This control item is universally accepted and used.
There is general agreement as to the unacceptability of this non-established and non-assimilated item. Variation is displayed, however, in respect of the usage of both A and Llg groups where a majority of these subjects acknowledge some usage of the word.

Acceptability of this established item is universal in groups Llg and A and this is matched by almost equal acceptance in L and T. Both of these groups, however, evince certain elements of reservation as to the use of this item. In view of the absence of an exact native alternative, it seems advisable to recall the comments with regard to the item HET above as to the possible confusion between actual and potential usage.
Again only the T group dissent from the unanimity of other subjects with regard to the acceptability of this established/no alternative item. As to usage, again the only major reservations are expressed by half the T group.

This established item is accepted and used universally in groups A and Llg and almost equally so in group L. A substantial minority of the T group, however, find this item undesirable, a theme which seems to run through the tests as a whole.
There is virtual unanimity between subjects as to the acceptability of this established item and the degree of its use.

(xvii) HAF (summer)

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</table>

This control item has elicited unanimous acceptability.

(xviii) TELEVISION (television)

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<tr>
<td>A</td>
<td>0</td>
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</tbody>
</table>

This unassimilated loan is clearly considered unacceptable by all groups of subjects equally. The usage made of the word is, however, a different matter and whereas a small number of L and T subjects display some linguistic insecurity, this aspect is much more marked in the A and Llg groups.

(xix) DREIFIO (to drive)

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<tr>
<td>A</td>
<td>5</td>
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</tbody>
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248
This non-established/alternative item has produced a mixed bag of results. There are clear indications of linguistic insecurity in the A and Llg groups with a high level of usage of the item and an equal split as to the word's acceptability. Both L and T tend in the opposite direction with T in particular clear as to the item's unacceptability. As for usage, a certain amount of insecurity is suggested, particularly with regard to the L group.

(xx) PLASTIG (plastic)

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<td>(c)</td>
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These results reveal a fairly even degree of agreement as to the acceptability and usage of this established/no alternative item for all groups except T. In this latter group, there is again a large majority of subjects who consider the item undesirable.

(xxi) BROWN (brown)

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Once again, it is the T group which provides the major differences in respect of the overall assessment of the acceptability of the item. There is again a substantial sub-group who consider the item to be undesirable.
Largely considered completely acceptable by L and T subjects, this non-established/alternative item receives a much more varied response in A and Llg. Also the level of usage is much higher in these groups.

Once more, the only variation from the overall picture of total acceptability and use is the small group of T subjects who find the item undesirable if not unacceptable.

Almost universally high levels of usage and total...
acceptability are found here for this control item.

(xxv) LEIN ((clothes) line)

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</tbody>
</table>

Again, A and Llg display an almost total level of support for the acceptability of this item and L results are quite similar. Only T group members have a degree of mixed response. For instance, a majority of these subjects find the item either unacceptable or undesirable.

(xxvi) ANTISEPTIG (antiseptic)

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</table>

For this non-established/alternative loan, the L and T/A and Llg division continues to be relevant. Groups A and Llg display again the total commitment to both use and acceptability of the item in question which has been such a common pattern in the results obtained. L and T responses on the other hand, however, display considerable departures from these unanimous levels of support.
(xxvii) EMOSIYNOL (emotional)

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<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

A generally high level of agreement is found here as to the acceptability of this established loan.

(xxviii) CYRTANS (curtains)

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>A</th>
<th>T</th>
<th>A</th>
<th>A</th>
<th>Llg</th>
<th>A</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U</td>
<td>A</td>
<td>U</td>
<td>A</td>
<td>U</td>
<td>A</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>(a)</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>13</td>
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</tr>
<tr>
<td>(b)</td>
<td>3</td>
<td>2</td>
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<td>6</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>(c)</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>12</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

Virtual universal usage is asserted by the subjects in groups A and Llg but restrictions are made on use by the other two groups, in particular the T group. As to the acceptability of this non-established/alternative item, slight reservations are expressed by Llg subjects but strong assertions of unacceptability are found from the L and T groups.

(xxix) LICIO (to like)

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>A</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>A</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U</td>
<td>A</td>
<td>U</td>
<td>A</td>
<td>U</td>
<td>A</td>
<td>U</td>
</tr>
<tr>
<td>(a)</td>
<td>7</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>(b)</td>
<td>4</td>
<td>3</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>(c)</td>
<td>6</td>
<td>9</td>
<td>10</td>
<td>16</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>
This non-established/alternative loan item displays a marked variety of response to both questions. The L group are the most mixed with regard to use of the item whereas T tend to non-use and A and Llg to a high degree of use. With regard to acceptability, both L and T tend towards viewing the item as unacceptable, L more marginally so and A finds the item acceptable by and large. Group Llg, however, is equally split between the two propositions.

(XXX) 'STILETTO HEEL' (stiletto heel)

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>A</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>U</td>
<td>14</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The final item is yet another which displays a clean split between the T and L groups on the one hand and the A and Llg groups on the other. Groups T and L find the item either undesirable or unacceptable and assert that they do not use it. A and Llg do use the item and find it acceptable presumably on the grounds that no feasible alternative presents itself.

A number of major themes may be identified running through the above sets of results. The prevailing response from the A and Llg groups is for the full use and complete acceptability of items. The only major divergences from this pattern relate to the non-established items such as "joio", "broadcasto", "television", "dreific", "stesion", "iwso" and "licio". Here, a majority of subjects tend to assess the acceptability of the items less favourably but this fact has only a marginal effect on the subjects' assessment of their own usage.
The reaction of these subjects to those other words which we described in Chapter 5 above as 'non-established' is somewhat different. The items in question are "antiseptig", "lot", "lein", "cyrtans", "ffrij" and "stiletto heel". The subjects' treatment of these items is largely similar to that of the other established and control words.

This situation suggests that these particular subjects are using a different measure of the established nature of a word from ourselves. It seems likely that the establishment of a word in a community is a direct function of the degree of acceptance of that word in the community and of the availability of any putative alternative. Clearly, the concept of establishment is a highly fluid one, varying not only from community to community but also from subject to subject and from time to time.

A and Llg responses contrast strongly with those of L and T except in relation to the control and established words where the results are similar. The subjects in these latter groups generally rate all the non-established items as unacceptable and use them less frequently than A and Llg. Some T responses display a more radical attitude towards interfering forms and this may result from the fact that as part of their job these subjects are involved in the dissemination to their pupils of Welsh versions of many of the commonest items involved (e.g. 'stesion', 'ffrij' and 'cyrtans').

Question 3. Underline any examples of English influence which you see in the following sentences:

The following table sets out the results for the four groups and is based on a comparison of the underlinings made for each sentence. A dash (-) represents no response from a particular group for the item in question.
<table>
<thead>
<tr>
<th>Item</th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gwd</td>
<td>17</td>
<td>20</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>(ii)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unig</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>eiriau</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ddywedodd</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>e</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(iii)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o</td>
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<td>7</td>
<td>8</td>
</tr>
<tr>
<td>(iv)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>pregethurs</td>
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<td>16</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>(v)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dywedwch wrth</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>am</td>
<td>1</td>
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<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(vi)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gweld</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>i chi</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>(vii)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>degs</td>
<td>16</td>
<td>18</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>machîn</td>
<td>15</td>
<td>20</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>laundrette</td>
<td>11</td>
<td>20</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>(viii)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ffindio más</td>
<td>15</td>
<td>20</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>(ix)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rwy'n gallu</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>(x)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>wedibod</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>ers</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
These results once again manifest the L and T versus A and Llg split. For, where the overall level of response is low, this response is found solely in the L and T grouping.

Where a high level of response is obtained this is in relation to lexical items (gwd, machin, laundrette, car), verb plus particle constructions (ffindio mäs, marw allan) and plural morphemes (pregethws, degs).

The other items and constructions identified display a much lower level of recognition from A and Llg or no recognition at all. It will be noted, however, that for...
some of these items the level of response for L and T themselves is to a great extent minimal.

The status of one of these items identified is interesting as it is not an example of interference and yet a high level of recognition is obtained from all groups. This item is "car fi" (my car), a construction which has no obvious model in English.

Question 4. Our request for subjects to provide correct forms for the interfering examples recognized did not prove fruitful. L and T subjects largely produced grammatically correct forms as might be expected and the replies to Question 3 meant that there were too few examples recognized on which A and Llg could comment. No detailed description has therefore been provided.

Question 5. Put the sentences in the following groups in order according to the standard of Welsh in them.

Although asked to rate the relative order of the three sentences in each group, subjects were in fact permitted to rate individual sentences in each group as being of equal standard. Thus it was possible for two or three sentences to be rated of equal standard, whether good or bad.

Group scores for each sentence were calculated on the basis of the rankings given by individual speakers. One point was given for each first or joint first place ranking, two points for each second or joint second place and three points for each third or joint third place. The group score represented the sum of each subjects' points.

The following tables the group scores for each sentence, together with the average score for that sentence. The heading for each table is based on the descriptive abbreviations given for each sentence type in Chapter 5 above (p 183).
1. Colloquial (Col) \(Syn^E_l\), Control (c)

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>43</td>
<td>2.53</td>
<td>58</td>
<td>2.90</td>
</tr>
<tr>
<td>(b)</td>
<td>40</td>
<td>2.35</td>
<td>43</td>
<td>2.15</td>
</tr>
<tr>
<td>(c)</td>
<td>17</td>
<td>1.00</td>
<td>20</td>
<td>1.00</td>
</tr>
</tbody>
</table>

The deviant sentence (1a) is marked lowest in all four groups but only marginally so in group L.

2. Lex. N-Est., C, Col

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>44</td>
<td>2.59</td>
<td>46</td>
<td>2.30</td>
</tr>
<tr>
<td>(b)</td>
<td>19</td>
<td>1.12</td>
<td>26</td>
<td>1.30</td>
</tr>
<tr>
<td>(c)</td>
<td>40</td>
<td>2.35</td>
<td>49</td>
<td>2.45</td>
</tr>
</tbody>
</table>

The lexical example of interference (2a) is clearly marked lowest in all four groups except in T where it is only marginally lower than the deviant example (2b).

3. Lex. Est./Sem., C, Col

The deviant sentence (3c) is clearly marked lowest in all four groups but only marginally so in groups A and Llg.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>27</td>
<td>1.59</td>
<td>20</td>
<td>1.00</td>
</tr>
<tr>
<td>(b)</td>
<td>29</td>
<td>1.71</td>
<td>42</td>
<td>2.10</td>
</tr>
<tr>
<td>(c)</td>
<td>42</td>
<td>2.47</td>
<td>57</td>
<td>2.85</td>
</tr>
</tbody>
</table>

More importantly, however, the semantic example of interference (3a) is plainly of low salience in as much as it is marked equal with the control sentence (3b) consistently in L, A and Llg and considerably lower than the control in T. There is a very narrow spread of results in A and Llg with little divergence from the most acceptable level.
A clear split is revealed in these results between L and T on the one hand and A and Llg. Whereas L and T rate the syntactic interference (4a) lower than the lexical item (4b), the position is reversed in A and Llg.

In this similar configuration of sentences to 4 above, the lexical item (5b) is again rated lowest in A and Llg. In L and T, however, the results are much closer and in T the syntactic interference is marked marginally lower.

The non-established lexical item (6c) is marked lowest in all four groups. The control (6a) and established lexical (6b) sentences at an equally high level.
It is the non-established lexical item that is marked lowest in all four groups but all three sentences are rated over a much narrower range in A and Llg.

Both control and established lexical items (8a and 8b) are rated remarkably closely in all four groups and this at a high level of acceptance. The non-established but technical item (8c) is marked considerably lower by all groups except A. This technical item is clearly viewed differently to the item "ffrij" at 7b above.

In L and T, both the non-established and established syntactic items are marked low, with the former lowest of all. This item is also marked lowest in group Llg but at a markedly higher level. In A all three sentences are marked equally.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>42</td>
<td>2.47</td>
<td>47</td>
<td>2.35</td>
</tr>
<tr>
<td>(b)</td>
<td>29</td>
<td>1.71</td>
<td>31</td>
<td>1.55</td>
</tr>
<tr>
<td>(c)</td>
<td>26</td>
<td>1.53</td>
<td>42</td>
<td>2.10</td>
</tr>
</tbody>
</table>

A and Llg display little differentiation between any of the three sentences which are all rated highly. In L and T on the other hand, the syntactic loan translation is clearly marked lowest although there is some confusion as to the relative rating of the other two items.

11. C, Syn \textit{El}, Lex \textit{N-Est}

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>19</td>
<td>1.12</td>
<td>24</td>
<td>1.20</td>
</tr>
<tr>
<td>(b)</td>
<td>31</td>
<td>1.82</td>
<td>38</td>
<td>1.90</td>
</tr>
<tr>
<td>(c)</td>
<td>50</td>
<td>2.94</td>
<td>54</td>
<td>2.70</td>
</tr>
</tbody>
</table>

Once again, it is the non-established lexical item which receives the lowest marking from all four groups. This is the only sentence in the group of three which is marked adversely by A and Llg. In L and T, the syntactic loan translation receives an intermediate mark between the other two items.

12. C, Lex \textit{N-Est}, Lex \textit{Est}

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>17</td>
<td>1.00</td>
<td>22</td>
<td>1.10</td>
</tr>
<tr>
<td>(b)</td>
<td>42</td>
<td>2.47</td>
<td>54</td>
<td>2.70</td>
</tr>
<tr>
<td>(c)</td>
<td>31</td>
<td>1.82</td>
<td>41</td>
<td>2.05</td>
</tr>
</tbody>
</table>

All three items are marked equally in group A but in the other three groups the non-established lexical item is marked lowest. In L and T, the established lexical item receives an intermediate score.
All four groups display the same relative order of rating with the control sentence (13b) highest and the deviant sentence (13a) lowest. The spread of results is, however, much narrower in A and Llg.

The results from this question again generally reflect the L and T/A and Llg split. On the whole, A and Llg display a higher level of response to sentences of all kinds with a narrower spread of scores as a result of less differentiation between the different kinds. However, both groups consistently produce a lower level of response with regard to those sentences which include non-established lexical items.

This tendency underlines the results obtained in Questions 1, 2 and 3 of this part of the questionnaire. It is difficult to ascertain whether the overall character of the A and Llg results stem from a lack of recognition of the different kinds of interference or from the more relaxed attitude of these subjects to those kinds of interference.

The T and L subjects on the other hand, display a much greater range of response to different examples of interference and to the deviant sentences included. The general overall ranking of these examples can be characterized roughly as follows: lexical non-established and deviant; syntactic loan translation; general syntactic; lexical established; and control and semantic. In A and Llg, this same ranking should be similarly characterized as follows: deviant; lexical non-established; syntactic; and equally control, semantic,
lexical established and syntactic loan translation.
The following table gives a diagrammatic representation
of these relative rankings:

<table>
<thead>
<tr>
<th>L and T</th>
<th>A and Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Col</td>
<td>Col</td>
</tr>
<tr>
<td>Lex^N-Est</td>
<td>Lex^N-Est</td>
</tr>
<tr>
<td>Syn^M</td>
<td>Syn^M</td>
</tr>
<tr>
<td>Lex^Eest</td>
<td>C,Sem,Lex^Eest</td>
</tr>
<tr>
<td>C,Sem</td>
<td>Syn^E</td>
</tr>
</tbody>
</table>

Before passing on to a few general comments on the results
of the attitude questionnaire which have been outlined
above, we shall explore briefly the possibilities of the
linguistic background indices described in Chapter 5. We
shall first consider the Welsh linguistic usage index
which involved the subjects' responses to questions 2.1,
2.4 and 2.5.

<table>
<thead>
<tr>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
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<td>18</td>
<td>23</td>
</tr>
<tr>
<td>2.4</td>
<td>43</td>
<td>46</td>
<td>36</td>
<td>51</td>
</tr>
<tr>
<td>2.5</td>
<td>38</td>
<td>38</td>
<td>56</td>
<td>59</td>
</tr>
<tr>
<td>121</td>
<td>109</td>
<td>110</td>
<td>133</td>
<td>473</td>
</tr>
</tbody>
</table>

The average group index score is as follows:

<table>
<thead>
<tr>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.12</td>
<td>5.45</td>
<td>7.86</td>
<td>9.5</td>
</tr>
</tbody>
</table>

The results show significant differences between the four
groups ($X^2 = 17.70, p < 0.01$). They show the highest degree of usage among T and the lowest among Llg. Groups L and A are much closer with a marginally higher degree of usage among L. The index does not measure Welsh usage pure and simple, of course, but is more accurately a measure of active pro-Welsh sensitivities in that the activities in question, viz following various aspects of the Welsh media, are minority pursuits. Clearly, then, it is the T group which is the most literary and media conscious and the Llg group that is the least so and yet it is the subjects in the latter group who are in the stronger position with regard to using Welsh in their day to day life simply on account of the composition of the community in which they live.

The same split is revealed, albeit less starkly, in the other, larger index outlined which involved more general attitudes to the language. 2

These results reveal the same order of groups as the earlier, smaller index but with the L and A grouping more closely aligned.

Footnote 2. See Chapter 5 (p 172) for a description of the composition and application of this index.
The results of these two indices highlight some of the major themes which we have seen running through the results of the measure as a whole. These themes include:

(a) the overall predominance of the T group as the most pro-Welsh
(b) the general split between L and T groups on the one hand and A and Llg groups on the other
(c) a further application of the indices reveals, the expected split between Welsh and English medium sub-groups in the L and T

### Index I

<table>
<thead>
<tr>
<th></th>
<th>L (W)</th>
<th>L (E)</th>
<th>T (W)</th>
<th>T (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
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<td>63</td>
<td>46</td>
</tr>
<tr>
<td>Av</td>
<td>4.71</td>
<td>8.80</td>
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<td>7.66</td>
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</tbody>
</table>
These results reveal clear differences between both the Welsh medium and English medium sub-groups in terms of both media usage and general pro-Welsh sympathies.

We have already seen above (pp 254, 256, 257) the importance of the L/T and A/Llg split for attitudes towards interference of all kinds, but a consideration of the Welsh medium/English medium split with regard to the Sentence Rating Test at Question 5 of Part Four, for instance, shows that the relevance of this split does not extend to the interference-oriented attitudes.

The following tables give the average score for the L and T groups and for their Welsh and English medium sub-groups in relation to each of the sets of test sentences in that question.

<table>
<thead>
<tr>
<th></th>
<th>L (W)</th>
<th>L (E)</th>
<th>T (W)</th>
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<tr>
<td>Total</td>
<td>138</td>
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<td>Av</td>
<td>19.71</td>
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1.

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<table>
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<table>
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<th>T (E)</th>
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<td>1.79</td>
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<td>1.00</td>
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<td>2.00</td>
<td>2.05</td>
<td>2.07</td>
<td>2.00</td>
</tr>
</tbody>
</table>

The significance of these splits will be discussed fully in our concluding chapter after we have considered the results of the usage tests.
CHAPTER 7

RESULTS AND DISCUSSION II
The usage tests described at pages 185 to 201 of Chapter 5 above were administered to the same groups of informants who had completed the attitude questionnaire. However, whereas the Lecturers and Teachers were allowed to complete their own attitude questionnaires, the nature of the usage test instruments, with their strong element of instant verbal and visual response, was not at all conducive to this kind of self-administration. In this instance, it was necessary to interview each informant separately and on average these interviews, which were conducted entirely in Welsh, lasted 30 minutes. Questionnaires and Usage Tests were administered simultaneously for the Aberystwyth and Llangwyryfon groups.

Test 1. Word Association Test

The first test to be administered was the word association test and as we have stated above each informant was given the usual instruction that they should reply rapidly, giving the first response which came to mind. All three stimuli were delivered to each informant and each response was noted in full on the work-sheet. For the purposes of analysis, the responses were split into two broad groups, (i) native words and established loans and (ii) non-established loans and these groups were scored 0 and 1 respectively for counting purposes.

A number of informants in the A and Llg groups tended to respond by providing direct English translations of the stimulus word and two subjects were particularly prone to this strategy. The view was taken that while this type of response may be significant from a psychological point of view, no account should properly be made in relation to interference usage.

The following table provides details of the overall scores on this test obtained by individual groups.
The results of the first of the usage tests further reinforces the L/T and A/Llg split which has been revealed so frequently in the attitude results outlined in previous chapters.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>L lg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index Score</td>
<td>119</td>
<td>132</td>
<td>243</td>
<td>239</td>
</tr>
</tbody>
</table>
| Total Test Responses | 816 | 960 | 607 | 643  
| (65 NR) | (29 NR) |
| % of Interference Responses | 14.58% | 13.75% | 40.03% | 37.17% |

$X^2 = 238.49$

$p < 0.001$

The high significance of these results strongly suggests that the saliency of the two particular groupings will be reflected in performance as well as attitude.

The second factor which regularly proved significant in the attitude questionnaire results was the medium of instruction employed by informants in the L and T groups. The following table sets out the corresponding results in relation to this factor.
<table>
<thead>
<tr>
<th>Response</th>
<th>L/T (W)</th>
<th>L/T (E)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Interference</td>
<td>867</td>
<td>658</td>
<td>1525</td>
</tr>
<tr>
<td>Interference</td>
<td>141</td>
<td>110</td>
<td>251</td>
</tr>
<tr>
<td>Total</td>
<td>1008</td>
<td>768</td>
<td>1776</td>
</tr>
</tbody>
</table>

\[ X^2 = 0.040 \]
\[ p < 0.90 \]

Clearly, there are no significant differences between the Welsh and English medium L and T informants in this set of results. We shall, however, have to see how other results develop before it is possible for us to assess the overall relevance of this.

2. Naming

Informants were asked to name items in the four relevant groups in the following manner:

"enwch gymaint o ....... ag y gellwch o fewn hanner munud"^1

As described in Chapter 5, the four topics chosen to be concentrated upon were as follows:

(i) Parts of a Car
(ii) Items in the Kitchen
(iii) Rooms in the House
(iv) Items on the Farm.

Plainly, it could not be expected that each subject would provide the same number of responses and it was therefore necessary, for counting purposes, to limit consideration to the number of responses common to all subjects. That

Footnote 1. Name as many .... as you can in half a minute.
is to say, account was taken of the lowest number of responses given by any informant and counting was then restricted to the first responses obtained from each informant (subject, that is, to a maximum equivalent to that lowest response level). In the event, the lowest number of items obtained was 6 and in the same way as for the Word Association Test the resultant replies were split into native and established loans on the one hand and non-established loans on the other.

In this way, we arrive at the following sets of tables:

<table>
<thead>
<tr>
<th>Response</th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Illg</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Interference</td>
<td>68</td>
<td>82</td>
<td>15</td>
<td>20</td>
<td>185</td>
</tr>
<tr>
<td>Interference</td>
<td>34</td>
<td>38</td>
<td>69</td>
<td>64</td>
<td>205</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>120</td>
<td>84</td>
<td>84</td>
<td>390</td>
</tr>
</tbody>
</table>

Interference $^2$

| Average    | 2.00 | 1.90 | 4.93 | 4.57 |

$X^2 = 84.46$

$p < 0.001$

The most common items found for the L and T groups are "gêr" (gear), brêc (brake) and clîts (clutch) and it is noticeable that these are all non-established/no alternative items in our terms. The main point of comparison between the L and T groups and the A and Illg groups respectively is with regard to the pairs "olwyn" and "wheel", and "llyw" and "steering wheel". Here are the individual results for the two particular pairs of items.

Footnote 2. The Interference Average is the average number of interference responses per subject.
It is further noticeable that the percentage of interfering responses for L and T groups increases when one takes into consideration those responses which fall outside the initial count group. As we have seen, the interference responses obtained for L and T groups in the first six responses was 34 and 38, an average response per speaker of 2.00 and 1.90 interfering items respectively. Considering the next group of four responses, reveals 39 interference responses for the L group (average per subject = 2.29) and 42 for the T group (average per subject = 2.10). The overall percentage of average interference response is here raised from 33.3% and 31.66% respectively for the initial count group to 42.9% (4.29 out of 10) and 40% (4 out of 10) for the two count groups together. The percentage response for the additional four items is 57.25% for L and 52% for T.

The implications of these results are clearly two-fold. Firstly, the initial reaction of L and T subjects is to produce native forms. Secondly, the nature of items in this particular semantic field is such that there is a relatively high proportion of interfering items and even L and T subjects are forced to resort to these forms as they list more items.
### KITCHEN

<table>
<thead>
<tr>
<th>Response</th>
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<th>T</th>
<th>A</th>
<th>Llg</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Interference</td>
<td>79</td>
<td>107</td>
<td>16</td>
<td>23</td>
<td>225</td>
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<tr>
<td>Interference</td>
<td>23</td>
<td>13</td>
<td>68</td>
<td>61</td>
<td>165</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>120</td>
<td>84</td>
<td>84</td>
<td>390</td>
</tr>
<tr>
<td>Interference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>1.35</td>
<td>0.65</td>
<td>4.85</td>
<td>4.36</td>
<td></td>
</tr>
</tbody>
</table>

\[ X_2 = 148.02 \]
\[ p < 0.001 \]

The results of this test incorporate the occasional use of the items ffri̇j (7 responses) and ffrizer (9 responses) by the Lecturer group whereas the incidence of these two items is considerably lower among the Teachers. We have already commented above (p 254) on the degree to which subjects in this group eschew the use of interfering forms in the area of common household items and we surmised then that it was the group's central role in the dissemination of Welsh forms that account for this.

The main points of distinction for this test between the L/T and A/Llg groupings are to be found in the items "ffwrn" or "popty" for "cooker" and peiriant golchi" for "washing machine".

### ROOM

<table>
<thead>
<tr>
<th>Response</th>
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<th>T</th>
<th>A</th>
<th>Llg</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Interference</td>
<td>93</td>
<td>109</td>
<td>45</td>
<td>41</td>
<td>288</td>
</tr>
<tr>
<td>Interference</td>
<td>9</td>
<td>11</td>
<td>39</td>
<td>43</td>
<td>102</td>
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<tr>
<td>Total</td>
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<td>84</td>
<td>390</td>
</tr>
<tr>
<td>Interference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>0.05</td>
<td>0.55</td>
<td>2.78</td>
<td>3.07</td>
<td></td>
</tr>
</tbody>
</table>

\[ X_2 = 78.94 \]
\[ p < 0.001 \]
There is a noticeably lower level of interference response in all four groups for this item. The overall range of response is, of course, limited but there is a consistent use of the items "bedrwm" (bedroom), "bathrwm" (bathroom) and "hol" (hall) by A and Llg groups. The item "parlwr" (parlour) which is found very commonly among all groups has been accepted throughout as an established loan and has therefore been counted as such.

<table>
<thead>
<tr>
<th>FARM</th>
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<tbody>
<tr>
<td>Response</td>
</tr>
<tr>
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</tr>
<tr>
<td>Interference</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Interference Average</td>
</tr>
</tbody>
</table>

\[ X_2 = 21.78 \]
\[ p < 0.001 \]

Although still highly significant, this set of results does not display the wide divergences seen in the previous three sets.

The level of response for Llg is surprisingly high, particularly in view of the familiarity of these rural subjects with the field in question. On reviewing the items elicited, however, it is clear that these subjects were prone to name more modern equipment such as "combein" (combine harvester), "mucspredar" (muckspreader) and so on. This point reinforces the central role that technological innovation plays in the dissemination of interfering forms.

The overall results for the four items in this question are as follows:-
We have here further clear confirmation of the importance of the L/T and A/Llg split for our study. There is also a clear tendency on the part of T subjects to produce a marginal but consistent lower level of interference response. There is a similar marginal difference between A and Llg with the latter lower.

3. Cards

The responses to the two sets of non-verbal stimuli were scored in a similar manner to the word association test described above, namely 0 points were scored for native words and established loans and 1 point for non-established loans. The following table sets out the group scores for each of the nine cards in the first set:
Major differences are once again clearly visible across the L/T and A/Llg split and a consideration of the overall results for the test reveals their massive significance.

Indeed, there is a remarkably low level of response in the L and T groups where the only interference forms given are in respect of the items (ii) and (vii). For (ii) ("hairdryer"), there is no generally accepted alternative to the interfering form. Those native forms produced reflect the innovatory abilities of the L and T subjects. The item at (vii) is "ffrij" and we have already discussed the differential use of this item by the L and T groups in relation to the naming exercise immediately above. A similar result is obtained here.
Groups A and Llg on the other hand are consistently high for all items except (iii) "iron" where the expected response is a well-established item and (vi) "kettle" where the well-established loan "tegell" is commoner than the more recent borrowing "cetl".

The following table sets out the results from the second set of cards.

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>(ii)</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>(iii)</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>(iv)</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>(v)</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>(vi)a</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>b</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>11</td>
</tr>
</tbody>
</table>

Yet more reinforcement of the major divide is provided here and the split between the two pairs of groupings is at its widest with a consistent nil response for the L and T groups. The A and Llg groups on the other hand have a consistently high level of interference response for all items except (iii) 209.

It is only in the L and T groups that significant levels of response for the new decimal system are to be found. ³

Footnote 3. While not strictly a form of interference itself, the decimal numeral system is interesting in that it represents an attempt to circumvent the decline of the traditional system in the face of the steady encroachment of the English system.
A consideration of the overall position reveals a higher level of response for the T group.

And within the two groups it is interesting to note that the English and Welsh medium sub-groups react differently.

Clearly, the highest level of response is obtained in the Welsh-medium Teacher group whereas in the Lecturer group it is the English-medium group that is higher. It is in the T (W) group, and particularly among the teachers of Yr Ysgol Gymraeg that there are found the individuals.
most responsible for disseminating the decimal system.

Another point that deserves mention is that for both groups the results are markedly higher for the simple numeral examples (i, ii, and iii) than for the temporal ones (iv and v). This split represents a tendency which may well be pervasive.

4. Plural Morphemes

Examples of the English plural morpheme \{-s\} among the plural forms supplied are set out in the following table:

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>1</td>
<td>0</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>(ii)</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>(iii)</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>(iv)</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>(v)</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>(vi)</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>(vii)</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>(viii)</td>
<td>6</td>
<td>3</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>(ix)</td>
<td>2</td>
<td>1</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>

Overall Percentages: 6.53% 2.77% 65.09% 50.79%

This test reveals a particularly wide split between the two major groups with an especially low level of response from L and T. In these groups, the only noticeable level of response relates to the item (viii) "twrci". Groups A and Llg, by contrast, have a relatively high level of response for all items except (iv) "plismon" and (vi) "gwn". The expected response for the former of these two items is, of course, itself an English-based form ("plismyn"
The limited \{-s\} forms obtained in relation to this item are in fact based on a related stem \{polis-\} (police) i.e.

It should be noted that all the items listed in the test are loans with varying degrees of phonetic and morphological integration. It is perhaps significant that the two loans which display the greatest degree of morphemic integration (i.e. (ii) "jobyn" and (vii) "ffermwr") also show a high level of plural morpheme interference. For the former of these two items, there is found in addition to the simple plural "jobs" (A, 9; Llg, 7) a number of examples of double plural "jobsys" (A, 4; Llg, 3).

Regrettably, our sample of plural morpheme interference is far too small for us to be able to discern any significant developments in the nature of this phenomenon either with regard to the relevance of particular morpheme patterns or phonetic structures or to the replacement of certain native plural morphs. For our purposes, it is sufficient to note that clear usage differences are suggested between L and T on the one hand and A and Llg on the other.

<table>
<thead>
<tr>
<th>Response</th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Interference</td>
<td>143</td>
<td>175</td>
<td>44</td>
<td>62</td>
<td>424</td>
</tr>
<tr>
<td>Interference</td>
<td>10</td>
<td>5</td>
<td>82</td>
<td>64</td>
<td>161</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td>180</td>
<td>126</td>
<td>126</td>
<td>585</td>
</tr>
</tbody>
</table>

\[ X_2 = 212.21 \]
\[ p < 0.001 \]

The subject of interference development is one that could be further elucidated by future research in the field of plural morphemes.
5. Translation

We described in Chapter 5 how this test was designed to assess the productivity of certain morphemes in each group of subjects. In addition certain control words and phrases were included.

As with each of the other tests, the following table lists the score of those responses which took the form of non-established loans:

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>6</td>
<td>5</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>(ii)</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>(iii)</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>(iv)</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>(v)</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(vi)</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>(vii)</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>(viii)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(ix)</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(x)</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Overall</td>
<td>6</td>
<td>5</td>
<td>76</td>
<td>72</td>
</tr>
<tr>
<td>Percentage</td>
<td>3.52%</td>
<td>2.50%</td>
<td>54.28%</td>
<td>51.42%</td>
</tr>
</tbody>
</table>

These results reveal a nil response for both L and T groups for all items except (i) antiseptic. The results for this particular item suggest that it is gaining a degree of acceptability in the community although it is impossible
to decide why this item should be singled out for acceptance. 4. Certainly it can be argued that with the substitution of final [-g] for [-k], the word slips easily into the Welsh phonemic pattern with none of the non-native clusters which are to be found in the other items. The suffix -ig is also consistent with the language's morphological patterning.

The level of response in groups A and Llg is, of course, as always radically different. Here, the level is much higher with only items (viii) "fire brigade and (ix) "post office" revealing a minimal level of interference response. These phrases are two of the control items included in the test and are, of course, very current in the Welsh form and the lower level of interference obtained is therefore to be expected. Another item which was much in vogue at the time of questioning was (vi) "decentralize" and there was a similarly reduced level obtained here.

Further items which realise a moderate response are the two other control items, (v) "wallpaper" and (x) "library" and also (vii) "co-operate".

The sample used is clearly too small and the results obtained too much at the mercy of the items chosen for us to be able to draw any positive conclusions as to the nature of lexical interference as such. The results are, however, suggestive that the productivity of those morphemes under examination are weak in the A and Llg groups. In this respect, it is clearly the importation of interfering forms that is the predominant strategy.

Footnote 4. It will be recalled that Questions 5.1 and 2 of the questionnaire similarly suggested a degree of acceptability although there were some reservations.
The following table sets out the level of interference response obtained:

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>8</td>
<td>6</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>(ii)</td>
<td>2</td>
<td>0</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>(iii)</td>
<td>1</td>
<td>0</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>(iv)</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>(v)</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(vi)</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>(vii)</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>(viii)</td>
<td>4</td>
<td>2</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>(ix)</td>
<td>7</td>
<td>6</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>(x)</td>
<td>9</td>
<td>6</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Overall</td>
<td>31</td>
<td>20</td>
<td>104</td>
<td>94</td>
</tr>
<tr>
<td>Percentage</td>
<td>18.23%</td>
<td>10.00%</td>
<td>74.28%</td>
<td>67.14%</td>
</tr>
</tbody>
</table>

The common major split is again revealed but there is a noticeably higher level of response in L and T for the items (i) smygu/smocio (ix) gwybod/i wybod and (x) torri/torri (i) lawr. As with Test 5 above, these scores suggest a movement towards a degree of acceptability on the part of these items.

The overall level of interference response for A and Llg is, by contrast, much higher, being in the 67-75% range for interference responses. The low response for items (v) and (vi) in these two groups mainly arises from the ease with which subjects are able to suggest alternative native forms in these sentences.
<table>
<thead>
<tr>
<th>STORI</th>
<th>(Figure One)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Car</th>
<th>Modur</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. torri lawr.</td>
<td>4. fan</td>
</tr>
<tr>
<td>cael 'breakdown'</td>
<td>stopo</td>
</tr>
<tr>
<td>ffaelu</td>
<td>can/tun (o betrol).</td>
</tr>
<tr>
<td>starting handle</td>
<td></td>
</tr>
<tr>
<td>starto</td>
<td>5. rhedeg allan/ma's</td>
</tr>
<tr>
<td>pafin/palmant</td>
<td>petrol</td>
</tr>
<tr>
<td>2. ffaelu</td>
<td>tanc</td>
</tr>
<tr>
<td>trio/trial</td>
<td>6. starto</td>
</tr>
<tr>
<td>mendio</td>
<td>ffarwello</td>
</tr>
<tr>
<td>injan</td>
<td>dweud 'ta ta'</td>
</tr>
<tr>
<td>bonet</td>
<td>olreit</td>
</tr>
<tr>
<td>3. pwsio</td>
<td>off</td>
</tr>
<tr>
<td>bws</td>
<td></td>
</tr>
<tr>
<td>pasio</td>
<td></td>
</tr>
</tbody>
</table>
7. The Story.

Relevant examples of interference which were elicited from the subjects' responses to the simple 6 picture story presented to them were noted on the check-list devised (Figure One) and the following results were obtained. They are presented on a picture by picture basis and represent the level of response for particular interfering items.

<table>
<thead>
<tr>
<th>Picture One</th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>torri lawr</td>
<td>10</td>
<td>9</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>cael breakdown</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>ffaelu</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>'starting handle'</td>
<td>4</td>
<td>2</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>starto</td>
<td>6</td>
<td>4</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>pafin/palmant</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>trio</td>
<td>8</td>
<td>6</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Overall</td>
<td>34</td>
<td>25</td>
<td>57</td>
<td>57</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Picture Two</th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ffaelu</td>
<td>4</td>
<td>1</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>trio</td>
<td>7</td>
<td>7</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>mendio</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>injan</td>
<td>6</td>
<td>8</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>bonet</td>
<td>17</td>
<td>19</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>helpu</td>
<td>10</td>
<td>6</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>ficso</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>starto</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Overall</td>
<td>56</td>
<td>51</td>
<td>76</td>
<td>77</td>
</tr>
<tr>
<td>Picture Three</td>
<td>L</td>
<td>T</td>
<td>A</td>
<td>Llg</td>
</tr>
<tr>
<td>---------------</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>-----</td>
</tr>
<tr>
<td>pwsio</td>
<td>3</td>
<td>4</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>bws</td>
<td>16</td>
<td>18</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>pasio</td>
<td>5</td>
<td>6</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>trio</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>starto</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Overall</td>
<td>25</td>
<td>28</td>
<td>60</td>
<td>53</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Picture Four</th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>fan</td>
<td>17</td>
<td>20</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>stopo</td>
<td>6</td>
<td>5</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>can/tun</td>
<td>17</td>
<td>20</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>thoi mewn</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Overall</td>
<td>40</td>
<td>45</td>
<td>49</td>
<td>51</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Picture Five</th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>rhedeg ma's</td>
<td>6</td>
<td>5</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>petrol</td>
<td>26</td>
<td>29</td>
<td>24</td>
<td>21</td>
</tr>
<tr>
<td>tanc</td>
<td>13</td>
<td>12</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Overall</td>
<td>45</td>
<td>46</td>
<td>52</td>
<td>47</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Picture Six</th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>starto</td>
<td>3</td>
<td>3</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>ffarwelio</td>
<td>11</td>
<td>14</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>dweud&quot;ta ta&quot;/&quot;gwbei&quot;</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>o1reit</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>off</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Overall</td>
<td>14</td>
<td>17</td>
<td>46</td>
<td>43</td>
</tr>
</tbody>
</table>
As usual, the results for groups A and Llg reveal the higher level of interference response in this Test. As with the gap filling exercise at Test 6 above, the overall level of response for groups L and T is pitched higher than hitherto. Furthermore, there is little difference between the English medium and Welsh medium sub-groups of the L and T groups.

<table>
<thead>
<tr>
<th></th>
<th>L (W)</th>
<th>L (E)</th>
<th>T (W)</th>
<th>T (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Total</td>
<td>86</td>
<td>128</td>
<td>147</td>
<td>65</td>
</tr>
<tr>
<td>Average score</td>
<td>12.29</td>
<td>12.80</td>
<td>10.50</td>
<td>10.83</td>
</tr>
<tr>
<td>per subject</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is noticeable that a number of the higher scores elicited from the two latter groups relate to the 'stylistic' variants such as "trio" (vs "ceisio"), "mendio" (vs "trwsio") or "helpu" (vs "cynorthwyo").

Another strategy which was displayed was the tendency by groups L and T to avoid those areas and items where interference might be expected. For instance, the low level of response by the subjects in these groups for the item "starting handle" (Picture One) stems from an avoidance of mention of the item rather than from the positive suggestion of an alternative. At the same time, these groups tend towards producing fewer but longer sentences as opposed to the shorter sentences which characterize A and Llg replies.
The above results make no mention of the responses obtained for the items "car"/"modur" which were, of course, the most prevalent items elicited. These were as follows:

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>A</th>
<th>Llg</th>
</tr>
</thead>
<tbody>
<tr>
<td>car</td>
<td>91</td>
<td>109</td>
<td>85</td>
<td>81</td>
</tr>
<tr>
<td>modur</td>
<td>7</td>
<td>10</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

The results clearly favour the former item with the latter restricted to only six subjects.

What then are we to glean from the seven usage tests as a whole? Clearly, the predominant characteristic remains the split between the higher education background groups (L and T) on the one hand and the lower educational background groups (A and Llg) on the other.

The overall level for the former pair of groups is consistently low but particularly so in the case of tests 3, 4 and 5. We have already commented to the effect that the difference between the two major pairs of groups is much less in tests 6 and 7 and we have surmised that this is because a more colloquial response has been elicited in this instance on the part of groups L and T.

It is interesting to note that this development is only to be viewed in these latter groups and this seems to demonstrate that interference is only stylistically sensitive in relation to L and T. Clearly, in this respect Tests 3, 4 and 5 are akin to the word list style used by Labov (1972: 84-85). The following graph, based
on the percentage of interference responses for Tests 1 to 6,\textsuperscript{5} illustrate the point:

This graph depicts dramatically the major split which we have discussed so frequently in respect of both attitude and usage results, namely that between L and T on the one side and A and Llg on the other.

Looking at the results for the former pair of subject groups, there is revealed a particularly low level of response for Tests 3a, 3b, 4 and 5. It is arguable that this low response stems from the familiarity of these subject groups with this type of test situation and the facility with which they are therefore approached. For

Footnote 5. Regrettably, the nature of Test 7 is not such as to permit responses which are readily comparable with those of other tests. In particular, the test is designed to allow subjects freedom to innovate within defined limits and it is therefore not possible to specify an expected level against which actual performance can be measured.
Tests 1, 2 and 6, however, the L and T response level is somewhat higher. Two factors would seem to be involved here:

(i) the less formal nature of these three tests and the more colloquial nature of the Welsh elicited

(ii) the concentration in Test 2 at least on areas of modern innovation where more interference is to be expected.

A similar range of results is obtained for groups A and Llg except for two points of difference. Firstly, in relation to Test One, the results for the two groups are much lower than might be expected from comparison with the results of the other tests. It should be borne in mind, however, that the test is designed to elicit a single interference response from three stimuli. The response levels obtained, of 40.03% and 37.17% are somewhat higher than the projected response.

Secondly, the high response for the results of Tests 3a and 3b demonstrate the salience of the fields of numerical and colour terminology and of terms for modern technical innovations for interference. The relevance of these points will now be discussed further in our final chapter.

Footnote 6. We have already discussed this aspect in relation to Test 7.
CHAPTER 8

CONCLUSIONS AND IMPLICATIONS
The points which are to be considered here in our concluding chapter will fall basically into two groups. Firstly, we shall make fuller comment on a number of major common strands which are to be seen running through the results outlined in Chapters 6 and 7 and to which attention has already been drawn briefly there and we shall consider what implications the results have for our view of the nature of the interference phenomenon in general and its sociolinguistic relevance. We shall conclude by discussing those areas of future research that our own research suggests might prove fruitful.

The major theme which we have seen highlighted in virtually all our results to date has been the clear-cut distinction between the Lecturer (L) and the Teacher (T) groups on the one hand and the Aberystwyth (A) and the Llangwyryfon (Llg) groups on the other. It is noticeable, in particular, that the distinction is found in both attitude and usage tests. One question which must be considered is the relevance of the similarity of the results in this respect between the two groups of tests. We must ask especially whether this cross-correlation may be taken to show that the degree of usage of interference is dependent upon the attitudes, that attitude in some way moulds the usage or alternatively that both are mutually dependent on certain other factors.

It is impossible for us to provide a definitive answer to these questions at this stage. We can, however, list here some of the influencing factors which we feel may be relevant. Clearly, the major defining factor for groups L and T is their degree of educational background, but another factor which we take to be a possible influence on the results obtained is the groups' overall usage of Welsh as illustrated in the linguistic usage index.

More light is thrown on this subject by the consideration of a further theme commonly seen in the results obtained.
This theme relates to the differences which were apparent in Chapter 6 in relation to the Welsh and English medium sub-groups of the L and T groups. It will be recalled that subjects who use the Welsh language as a medium of instruction consistently revealed much more favourable attitudes towards Welsh in the general attitude sections (I-III) of the attitude questionnaire whereas the English medium subjects tended to produce more pragmatic responses. One may assume from this that these subjects tend to be less emotionally and politically committed to the language.

It is noticeable that the Welsh medium/English medium distinction is not manifested in the results of the usage tests. Indeed, the interference usage response in the test situation is minimal for all four of these sub-groups. This leads one to suppose that it is not possible to posit a direct correlation between usage and general language attitudes at least.

With regard to the possible correlation of interference attitudes and interference usage, there are clearly gross differences in respect of the latter as between the major pairs of groups but these differences are not reflected in the interference attitudes revealed, at least on the lexical level. Thus, while both pairs give replies which suggest an aversion to the interference of non-established lexical loans, a low level of usage of these items is found only in the L and T pair.

All this suggests that whatever relationship there may be between attitude and interference, it is clearly not a causal one. Rather, it would seem much more feasible to argue that both reactions to interference and usage of the phenomenon stem from the complex interplay of a number of other factors such as educational and social background. Alternatively, both of these factors may be considered as members of a series of mutually influencing factors.

With regard to the general attitude results, it will be
recalled that the major differences between the L and T groups as opposed to A and Llg lay in the areas of the level of language use (Part II) and in the questions surrounding political activity in connection with Wales' and the Welsh language (i.e. Part III questions 1-4).

In the former area, the A and Llg groups demonstrate a consistently lower level of active language usage. We have already suggested that there is a link between usage in the media and literature and this result may therefore be taken as evidence of a reduced commitment to the language on the part of subjects from these groups.

In the second area, we saw that A and Llg subjects were strongly averse to political activity in support of the Welsh language and also to groups who undertake such activity. Furthermore, they demonstrate only the most minimal support for the more radical forms of separatism for Wales. The results from these two areas do, of course, largely form the basis of our larger linguistic background index.

The A and Llg subjects' responses to the general questions about the Welsh language, such as, for instance, in respect of the desirability and likelihood of the language's continuance, are consistently similar to those provided by the L and T groups. That is to say, all the subjects questioned are predominantly favourable to Welsh in these general areas.

The other area which revealed differences between the two major pairings was the group of questions which dealt directly with subjects' attitudes towards deteriorating language standards and the interference phenomenon (i.e. questions I.4 and I.5). In their answers to the former of these questions, the L and T groups reveal a clear sensitivity to a decline in language standards. In addition, roughly a third of A and Llg subjects are similarly sensitive.
In further questioning these 'decline sensitive' subjects in Question I.5 (A), it is plain that it is the various forms of interference that are accounted most responsible for this deterioration in standards. A and Llg subjects tend to restrict their adverse comments to lexical and idiomatic interference and T subjects also point substantially to the relevance of faulty grammar.

More interestingly, on further questioning of those subjects who did not reveal sensitivity to deterioration in their replies to question I.4, question I.5 (B) shows that these subjects feel that English does have too much influence on the Welsh language and that interference is therefore an important factor for them. The replies to the second part of the question further underlines the emphasis that all subjects place on lexical and idiomatic interference with A and Llg subjects concentrating in this instance on lexical interference.

Before passing on to a consideration of the relevance of these results for the replies to the questions in Part IV of the questionnaire which focus directly on the interference phenomenon, we should say a few words as to the implications of the results of these two questions for the subjects' views of language and interference.

The predominant view, as illustrated by the L and T subjects and by a minority of A and Llg subjects, is that language standards are in decline in Welsh and that interference from English is a prime example of this. For the majority of the A and Llg groups and for some L and T respondents, standards have not in fact declined but English nevertheless does have too much linguistic influence on Welsh. It would seem that these particular subjects view the interference phenomenon as being in some way apart from the Welsh language as a whole.

The propensity of A and Llg respondents to react
negatively to examples of lexical interference is confirmed and reinforced by the results obtained in Part IV of the questionnaire which bears directly on attitudes to and awareness of individual examples of interference.

In the sentence rating exercise at question 5 in Part IV, it was only those sentences which contained non-established examples of interference that A and Llg subjects consistently rated lower. With regard to the remaining types of interference, these on the whole received from these same subjects scores that were commensurate with those given for the control sentences.

One explanation consistent with these results is that A and Llg subjects are simply not averse to these kinds of interference. In the face of the lexical interference reactions, this seems an unlikely proposition but it may well be that these subjects are unaware of the English provenance of many of the forms and constructions involved and are therefore reacting to the sentences as though they were non-deviant. This point is reinforced by the failure of these subjects to pick out the majority of the non-lexical examples of interference included in the recognition test at question 3 of Part IV.

Dorian has remarked (1973 : 414) that speakers' evaluative comment on the quality of their own speech and that of others focuses on the extent of contemporary borrowing. It is clear from our results that while Dorian's observation is largely true for the A and Llg groups, a more sophisticated range of evaluations is made by the educated L and T subjects. In our assessment of the rating exercise (IV.5), we saw that the non-established loans were marked most adversely by these subjects also but disapproving responses were also given to the other, syntactic and semantic types of interference.

What then have we learned about the nature of the
relationship between attitude and interference. At the beginning of Chapter 4, we posed a number of questions in this general area for consideration and we are now in a position to offer some tentative observations on these.

Firstly, we asked whether interference phenomena were considered as being apart from Welsh or part of the language. As we have already seen, our results have suggested that views on this subject are mixed, with the majority of A and Llg subjects considering interference from English to be something separate from the Welsh language while the remainder of these two groups and virtually all the L and T subjects take the view that such interference is an unfortunate development within Welsh.

On the question of whether speakers have perceptible attitudes towards interference, it is clear that this is the case although the nature and spread of these attitudes varies greatly, as we have seen. On the further question of whether these attitudes affect performance, our comments must be more guarded. It should be appreciated that the usage tests which we have used are not intended to provide an objective measure of the degree of interference found in individual speakers but rather are intended as a means of comparing the usage of certain groups of subjects in specific, mainly lexical, fields. Nevertheless, one can say that it is possible to correlate attitude and interference only in the case of the L and T subjects. Here, an adverse reaction to non-established lexical loans correlates with a minimal level of usage of these particular items.

For the remaining subjects, however, no such correlation can be seen. For while A and Llg subjects avow an aversion to the non-established loans, their usage of the same items is high.
There would seem to be three possible explanations for these differing results.

(i) There is no direct relationship between attitude and interference. Rather, both are based independently on a subject's social, educational and linguistic experience.

(ii) The adverse reactions obtained from the two pairs of groups are of a different kind, with A and Llg subjects evincing a more intuitive and loyalistic response to those examples of interference which they recognize while L and T responses are deeper and more active.

(iii) The adverse reactions obtained from the two pairs of groups are not of the same degree. Thus while the reactions to the different types of interference are comparable within each group, it may not be possible to equate reactions between groups. In other words, although A and Llg's group reaction to non-established lexical items may be adverse compared with the reaction to the control and other interfering examples, their reaction may still not be as adverse as that of L and T to the same items.

It may very well be, of course, that all three of these explanations have some relevance for the complex circumstances that surround the interference phenomenon and that further research will be required in order to elucidate the exact relevance of each.

However, we offer the following tentative observations on the subject. It does indeed seem likely that there are qualitative differences between the two pairs of groups in the nature of their attitude towards interference but that there remains nevertheless a lack of correlation in A and Llg between attitude and performance in the area
of non-established lexical borrowings. Evidently, there is in effect a degree of linguistic insecurity in respect of these items on the part of the A and Llg subjects. In these circumstances, it is clear that direct attitude-interference correlation can never be complete.

What then can we now say about the interference phenomenon and its development and its relevance for language decay and language death.

One of the basic factors which was of most importance to us in our preparation of data for both the attitude and usage tests was the established/non-established dichotomy. The distinctive feature used to characterize this factor was the occurrence or otherwise of a particular item as a dictionary listing. It would seem reasonable to assume that acceptability is an important pre-requisite for establishment, indeed, establishment may be equated with acceptability on a societal level.

The results which we have obtained go some way to elucidate the nature of this phenomenon and it is questions 1 and 2 of Part IV of the attitude questionnaire that is of most relevance to our consideration of this matter. Here we see first of all that there is a direct correlation between established loans and acceptability. That is, established loans are almost invariably found acceptable although some subjects, notably in the more educated L and T groups, expressed regret that no viable alternative was available.

With regard to the non-established loans, however, the acceptability level is much more mixed with a tendency to acceptance among A and Llg subjects and to non-acceptance among L and T. The suggestion as to the progress of interfering forms is clearly that it proceeds from acceptance among less educated groups such as A and Llg to gaining increasing, though perhaps grudging, acceptance from more educated speakers and thence to
establishment at a societal level. This progression is also reflected in the linguistic side of the phenomenon with non-established loans gaining currency initially in the less educated groups. Later, the loan may extend gradually to other groups.

We saw in an earlier chapter that frequency of contact is held to have a direct bearing on the frequency of linguistic change observed. Furthermore, the change brought about through contact may involve the importation of foreign forms or innovation towards a foreign model and may therefore be relatively "non-natural" or it may involve the acceleration of a natural tendency on the part of the recipient language to change in a particular direction (i.e. towards the model).

A general term for developments of these kinds is "language decay" and in its more extreme form it has been called "language death" (cf Dorian, 1973). Language decay is clearly relative and we saw in Chapter 3 that it even affects, albeit in only very marginal functions, international languages such as French. More commonly, however, decay affects subordinate languages in contact situations and in our study we have seen revealed in Welsh a number of the features which are taken to be characteristic of language decay.

Firstly, we have seen examples of non-established borrowings throughout. This has largely been in areas of innovation but there have also been examples of relexification where innovations are made in the face of existing native alternatives, such as, for instance, in the fields of numerals and time.

Footnote 1: This is not, of course, true of learned importations which originate at the more educated level and may be expected therefore to have a degree of acceptance among such groups.
Secondly, we have seen instances of structural realignment in Welsh where Welsh patterns have been restructured on English models. In Chapter 3, for instance, we described the changes that had been wrought in the structure of the Welsh colour terminology system. We have also seen and measured attitudes towards morphological importations (i.e. in respect of the plural morphs) and towards various verb plus particle constructions.

Another feature which is characteristic of language decay is the loss of productive word formation and we saw some evidence for this in our Plural Morpheme and Translation exercises at Tests 4 and 5 respectively of the Usage Questionnaire.²

It will be noticed that all the features mentioned above have appeared predominantly in the less well educated A and LlG groups and it seems most likely that the focus of Welsh language decay is to be found in groups such as these. We have not, however, seen examples in our tests of language reduced to the extent displayed by Dorian's "semi-speakers" (Dorian, 1973), although it is likely that this type of speech is not easily amenable to elicitation by the kind of usage tests which we have employed.

Our results have shown that the A and LlG groups have displayed a degree of linguistic insecurity at least in relation to non-established lexical items and this dissatisfaction can be an important influencing factor in language decay. This influence is cumulative in that decay is accompanied by less favourable evaluations of a

Footnote 2: A further common and early language decay feature is the acculturation of personal names. While it is certainly true that both Christian names and surnames in Welsh have tended to be anglicized over many centuries, it is noticeable that it is becoming increasingly common for re-acculturation to occur and for Welsh forms to be re-adopted.
language on the part of its speakers and this, in turn, feeds back into further impoverishment of the language and restriction of its use. There are clear dangers for the Welsh language here.

Our study has pointed to a number of areas which would benefit from further research.

Firstly, our research to date has concentrated on attitude and usage differences between groups of subjects on the basis of their educational and home background. There are, however, a number of other factors on which our techniques could be brought to bear, the most important of which are the age and sex of the subjects. Of these, the former may present the researcher with potential problems in respect of sampling in that severe age grading, particularly in the less educated groups, reduces the number of younger speakers from whom a sample can be drawn. A consideration of interference from the standpoint of age grading would be of particular interest for elucidating the diachronic development of the phenomenon.

A further point of useful research would be an attempt to make a more direct comparison between the attitudes of different groups. It will be recalled that we suggested above that an adverse reaction from one group might not be readily comparable with a similar reaction obtained from another. It would also be desirable to look to the differing nature of the attitudes elicited.

Finally, research should also be directed against the non-linguistic aspects of language contact. In contact situations, interference may be marked out by a reduction in the stylistic range available to a speaker or by a confusion in the speakers ability to respond to the cues that would normally trigger a stylistic change. Two results are likely in these circumstances. Firstly, the speaker may vary the functional distribution of the
languages available to him by code switching. Alternatively, he may resort to the inappropriate or occasional use of the native stylistic forms to hand. Both of these results represent a breakdown in the speakers communicative competence, that is his ability to use sentences appropriately.

Clearly, this is an important aspect of language contact which we have not been able to touch upon and which would benefit from further research. It is to be hoped that the methods which we have developed will be of some use in providing a suitable starting point for such research.
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APPENDICES
Adran I

1. Ai'r Saesneg neu'r Gymraeg ddylai fod yn iaith swyddogol Cymru?
   [i] Saesneg .....  [ii] Gymraeg .....  [iii] y ddau ..... 

2. A ydych yn meddwl y dylai'r canlynol fod, yn swyddogol, yn : -
   a) uniaith Sae sneg
   b) uniaith Gymraeg
   c) dwyieithog
   [i] y Cynulliad Cymreig a gynigiwyd gan y llywodraeth ................
   [ii] y Swyddfa Gymreig ............
   [iii] cyfarfodydd cynghorau lleol mewn ardalodd Saesneg ............
   [iv] cyfarfodydd cynghorau lleol mewn ardalodd Gymraeg ............
   [v] gweinyddiaeth cynghorau lleol mewn ardalodd Saesneg ............
   [vi] gweinyddiaeth cynghorau lleol mewn ardalodd Gymraeg ............
   [vii] ffurflennd swyddogol .............
   [viii] arwyddion ffyrdd ............
   [ix] llwyddiant ..........  
   [x] cyrsiau prifysgol ............. 

3. Yn eich barn chi, ble mae'r ffurf orau ar y Gymraeg i'w chael?
   [i] Beibl .....  [ii] Capel .....  
   [iii] B.B.C. .....  [iv] Llyfrau .....  
   [v] Papurau newydd .....  [vi] Yr Iaith Lafar .....  
   [vii] Rhywle arall .............  

4. Yn gyffredinol, a ydych yn meddwl fod safonau llafer y Gymraeg wedi dirywio yn ystod eich ees?
   [i] Ydw .....  [ii] Nac Ydw .....  

5. [A] Os ydych [i] Ble mae'r dirywio i'w weld?
   [i] grammeg gwallus .....  
   [ii] defnyddio gormod o gystrawennau Saesneg .............
   [iii] cynaniad gwallus .....  
   [iv] defnyddio gormod o eiriau Saesneg .............
   [v] defnyddio gormod o idiomau Saesneg .............
[2]. Rhowch enghreiffiau o’r math o beth sy’n arbennig o wael, yn eich barn chi.

[B] Os nac ydych

1. A ydych, er hynny yn meddwl fod yr iaith Saesneg yn cael gormod o ddylanwad ar y Gymraeg?
   [i] Ydw .....
   [ii] Nac ydw .....

2. Os felly, ble mae’r dylanwad hwn i’w weld?
   [i] gëirfa .....
   [ii] gramadeg .....
   [iii] cynanad .....
   [iv] idiomau .....

3. Rhowch enghreiffiau o’r math o beth sy’n arbennig o wael, yn eich barn chi.

6. Rhowch y dulliau canlynol mewn trefn, yn òl eu heffeithiolrwydd ar gyfer gwella safonau’r iaith.
   [i] dysgu’r iaith yn well mewn ysgolion
   [ii] rhagor o ysgolion dwyieithog
   [iii] rhagor o raglenni Gymraeg ar y-radio neu’r teledu
   [iv] datganoli
   [v] dylanwadau o’r teledu a phapurau newydd

7. A ydych yn meddwl fod yr iaith Gymraeg yn ddigonol ar gyfer cael ei defnyddio mewn cymdeithas fodern, technegol?
   [i] Ydw .....
   [ii] Nac ydw .....

8. Os nac ydych, sut byddai’n bosibl ei gwneud yn ddigonol?
   [i] trwy fathu geiriau o ânoddau Gymraeg .....
   [ii] trwy fentanyl geiriau Saesneg .....
   [iii] mae’n amhosibl .....

Unrhyw awgrymiadau eraill........................................................................................................
...........................................................................................................................................

7. Os nac ydych, sut byddai’n bosibl ei gwneud yn ddigonol?
9. A ydyw'n bwysig siarad Cymraeg da?
   [i] pwysig iawn ..... [ii] eitha pwysig ..... [iii] di - bwyn.....
10. A ydych yn fodlon ar y ffordd yr ydych chi eich hun yn siarad Cymraeg?

Adran II
1. Pa mer aml ydych yn gwrando ar raglenni Cymraeg ar y radio neu'r teledu?
2. Beth ydych chi'n meddwl am y fath o Gymraeg sy'n cael ei siarad ar y Radio a'r Teledu
3. A ydych yn meddwl fod Cymraeg y B.B.C. wedi effeithio ar y ffordd yr ydych chi eich hun yn siarad Cymraeg?
   [i] dim o gwbl ..... [ii] tipyr. bach ..... [iii] yn fawr iawn ..... 
4. A ydych yn darllen llyfrau Cymraeg?
5. A ydych yn darllen papurau neu gylchgronau Cymraeg?

Pa rai ydych yn eu darllen yn rheolaidd
Adran III

1. Pa un o'r sefydliadau hyn sy'n gwneud y mwyaf i sicrhau dyfod yr iaith Gymraeg?
   [i] Plaid Cymru ......
   [ii] Cymdeithas yr Iaith ......
   [iii] Yr Urdd ......

2. A fyddych yn ystyried cefntig Cyng Frank yr Iaith?
   [i] o dan unrhyw amedau ......
   [ii] dim ond es nad oedd yn golygu traes ......
   [iii] dim ond es nad oedd yn golygu terri’r gyfraith ......
   [iv] dim o gwbl ......

3. A ydych wedi cefntig Cyng Frank yr Iaith yn weithred 1?
   [i] Ydw ......
   [ii] Nac ydw ......

4. A ydych yn ffafrie :-
   [i] annibyniaeth llwyd i Gymru ......
   [ii] hunan-lywodraeth o fewn yr U.K. a’r gallu i godi trethi ......
   [iii] datganeli fel y mae'r llwydraeth yn awgrymu à chymnulliad ymgynghorol ,
   [iv] dim newid yn y sefyllfa bresennol ......

5. Pa mor dwyig yw'r canlynol i Gymru? Rhwch tic yn y blwch priedel.
   [i] rhagor o ddiwydiant i Gymru
   [ii] rhagor o swyddi mewn ardal oedd gwledig
   [iii] ffrdd gwell
   [iv] adfer yr iaith Gymraeg
   [v] rhagor o addysg adwyleithog
   [vi] rhagor o swyddi mewn ardal oedd diwydiant
   [vii] sianel teledu Gymraeg ar wahân
   [viii] llai o chwyddiant
   [ix] datganeli
   [x] cyfleudd gwell mewn addysg

6. Yn eich barn chi, pa mor dwyig ydw fod y Gymraeg yn parhad fel iaith lafar?
   [i] pwysig iawn ......
   [ii] eitha pwysig ......
   [iii] dim yn bwysig iawn ......
   [iv] cwl di-bwys ......
7. Yn eich barn chi, pa mar debyg ydyw y bydd yr iaith Gymraeg yn parhau fel iaith lafar yn y dyfodol?

8. A ydych yn meddlw y dylai'r Gymraeg fod yn orfodol mewn ysgolion?
   [i] yn mhob ardal ..... [ii] dim ond mewr ardaloedd Gymraeg ..... [iii] dim o gwbl ..... 

9. Petai rhaid i blentyn ddewis rhwng Gymraeg a Ffrangeg pa un ddylai ddewis?
   [i] Gymraeg ..... [ii] Ffrangeg .....
A'dyrch yn defnyddio'r geiriau a ganlyn yn y Gymraeg:

<table>
<thead>
<tr>
<th></th>
<th>trwy'r amser</th>
<th>weithiau</th>
<th>dim o gwbl</th>
</tr>
</thead>
<tbody>
<tr>
<td>[i]</td>
<td>helpu .......</td>
<td>mynd .......</td>
<td>brown .......</td>
</tr>
<tr>
<td>[ii]</td>
<td>clyfar .......</td>
<td>broadcaste .......</td>
<td>iwsa .......</td>
</tr>
<tr>
<td>[iii]</td>
<td>parod .......</td>
<td>diffinie .......</td>
<td>radio .......</td>
</tr>
<tr>
<td>[iv]</td>
<td>het .......</td>
<td>bem .......</td>
<td>pymtheg .......</td>
</tr>
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<td>[v]</td>
<td>cicie .......</td>
<td>clw .......</td>
<td>lein .......</td>
</tr>
<tr>
<td>[vi]</td>
<td>miwsig .......</td>
<td>piano .......</td>
<td>antiseptio .......</td>
</tr>
<tr>
<td>[vii]</td>
<td>joie .......</td>
<td>haf .......</td>
<td>emoslynol .......</td>
</tr>
<tr>
<td>[viii]</td>
<td>lot .......</td>
<td>television .......</td>
<td>cyrtans .......</td>
</tr>
<tr>
<td>[ix]</td>
<td>stesion .......</td>
<td>dreifie .......</td>
<td>licic .......</td>
</tr>
<tr>
<td>[x]</td>
<td>ffrij .......</td>
<td>plastig .......</td>
<td>stiletto heel .......</td>
</tr>
</tbody>
</table>

2. Sut fyddych yn disgrifio'r un geiriau:

<table>
<thead>
<tr>
<th></th>
<th>gwbl dderbynol</th>
</tr>
</thead>
<tbody>
<tr>
<td>[a]</td>
<td>cymryd dwbl</td>
</tr>
<tr>
<td>[b]</td>
<td>annymuned end nid es eisw</td>
</tr>
<tr>
<td>[c]</td>
<td>gwbl annerbynol</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>helpu .......</th>
<th>mynd .......</th>
<th>brown .......</th>
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<tbody>
<tr>
<td>[i]</td>
<td>helpu .......</td>
<td>mynd .......</td>
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<td>[iii]</td>
<td>parod .......</td>
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<td>[iv]</td>
<td>het .......</td>
<td>bem .......</td>
<td>pymtheg .......</td>
</tr>
<tr>
<td>[v]</td>
<td>cicie .......</td>
<td>clw .......</td>
<td>lein .......</td>
</tr>
<tr>
<td>[vi]</td>
<td>miwsig .......</td>
<td>piano .......</td>
<td>antiseptio .......</td>
</tr>
<tr>
<td>[vii]</td>
<td>joie .......</td>
<td>haf .......</td>
<td>emoslynol .......</td>
</tr>
<tr>
<td>[viii]</td>
<td>lot .......</td>
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<td>cyrtans .......</td>
</tr>
<tr>
<td>[ix]</td>
<td>stesion .......</td>
<td>dreifie .......</td>
<td>licic .......</td>
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<tr>
<td>[x]</td>
<td>ffrij .......</td>
<td>plastig .......</td>
<td>stiletto heel .......</td>
</tr>
</tbody>
</table>

3. Tanlinellwch unrhyw engatreiffiau e ddylanwad Saeson a welwch yn y brawddegau a ganlyn.

<table>
<thead>
<tr>
<th></th>
<th>Mae hwnnw'n siarad Cymraeg yn gwd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[i]</td>
<td>Mae hwnnw'n siarad Cymraeg yn gwd.</td>
</tr>
<tr>
<td>[ii]</td>
<td>Dyna'r unig eiriau a ddywededd e.</td>
</tr>
<tr>
<td>[iii]</td>
<td>Ble ma'n dod e.</td>
</tr>
<tr>
<td>[iv]</td>
<td>Dyw pregethres ddim cystal ag wedden nhw.</td>
</tr>
<tr>
<td>[v]</td>
<td>Dywedwch wrth Mair am alw'r meddyg.</td>
</tr>
<tr>
<td>[vi]</td>
<td>Mae 'na ddy'n i'ch gweld chi.</td>
</tr>
<tr>
<td>[viii]</td>
<td>Bydd rhaid inni ffindio mäe yn nes ymlaen.</td>
</tr>
<tr>
<td>[ix]</td>
<td>Rwy'n gallu gweld rhywun yn ded.</td>
</tr>
<tr>
<td>[x]</td>
<td>Mae wedi bod yn byw yma ers pum mlynedd.</td>
</tr>
</tbody>
</table>

[i'w barhau]
4. Os ydych yn ystyried rhai o'r brawddegau uchod yn gwbl anferbyniol, rhoch brawddegau derbyniol yn eu lle.

[2] Ble'r ych chi'n dod o?

5. Rhoch y brawddegau yn y grwpiau canlynel mewn turfn, yn ôl safon y Gymraeg ynddynt

I. [a] Car fi yw'r un 'na
[b] Ble'r ych chi'n dod o?
[c] Brawd o Gapel Bangor yw e.

2. [a] Ydych chi'n cweit siŵr?
[b] Beth yw'r amser
[c] Mae e ddim yma.

3. [a] Dyna gwestiwn caled.
[b] Fe welais i e ddoe.
[c] Mae llawer o nhw yna.

4. [a] Ble mae'n dod o.
[b] Mae'n hollek rong.
[c] Tybed ddaw e?
5. [a] Fonedd e fi lan y bore 'ma.
   [b] Rwy incleind i fe'd o'r un farn à John.
   [c] Roedd Gwyn yng Nghaerdydd ddydd Sadwrn.

   [b] Mae'n mynd i Gaerdydd ar y trên.
   [c] Rydw i wedi netishio ma' pobl ddlog sy'n dweud fellwy.

7. [a] Mae tipyn o arian gen i yn y sefins banc.
   [b] Mae tipyn o laeth gen i yn y siriol.
   [c] Mae tipyn o gaws gen i ar y bwrdd.

8. [a] Oedd y car yn frwnt?
   [b] Oes eisiau petrol arnon nî?
   [c] Mae'r windsgrin wedi torri.

9. [a] Mae ffermwr yn gweithio'n galed iawn.
   [b] Dydw i ddim yn gwybod os ees rha'i ym.
   [c] Mae wedi torri ei goes.

10. [a] Mae'n ceisic gwneud i fywy am ei-gamgymeriad.
    [b] Mae'r bws yn pasi'n dif.
    [c] Mae pen Toast ofnadwy arna'i.

II. [a] Mae eisiau afalau arna'i.
    [b] Mae'r car wedi terri lawr eto.
    [c] Trowch y golau 'na off.

12. [a] Ydych chi'n hoffi llaeth?
    [b] Rydw i'n licio llaeth.
    [c] Rydw i'n gweld y broblem.

13. [a] Wyt ti am e ?
    [b] Wyt ti am y bara ?
    [c] Wyt ti am y finesg ?
Word Association Test.


NAMING

[i] CAR ........................................................................
[ii] KITCHEN ..................................................................
[iii] ROOMS ...................................................................
[iv] FARM ....................................................................... 

CARDS

   [vi] ...........

MORPHEMES


TRANSLATE

[ix] post office .......... [x] library .......... 

   [ii] Mae'n rhw' n sôn am gau'r .......... o Aber i Bwllheli. 
   [iii] Mae'r bachgen 'na yn .......... yn y coleg. 
   [iv] Mae'n mynd i Bwllheli ar ei .......... 
   [v] Rwy'n heffi .......... 'Heiddiw' heb dydd. 
   [vi] Rydyn ni'n siŵr o .......... 'r Wyddfa eleni. 
   [vii] Paris yw prifddinas .......... 
   [viii] Bydda'i'n cael pensiwn ar ôl .......... 
   [ix] Mae'n anodd .......... pwy sy'n iawn. 
   [x] Rædd e'n hwyw yn cyrraedd am fod ei gar wedi .......... ar y fferdd.
## Appendix III - The Informants

### College Academic Staff

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Welsh Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. Bowen</td>
<td>Chemistry</td>
<td></td>
</tr>
<tr>
<td>M. Davies</td>
<td>Chemistry</td>
<td></td>
</tr>
<tr>
<td>D. Hopkin</td>
<td>History</td>
<td></td>
</tr>
<tr>
<td>R. G. Gruffydd</td>
<td>Welsh</td>
<td></td>
</tr>
<tr>
<td>G. Jenkins</td>
<td>Welsh History</td>
<td></td>
</tr>
<tr>
<td>E. T. Jones</td>
<td>French</td>
<td></td>
</tr>
<tr>
<td>R. T. Maddock</td>
<td>Economics</td>
<td></td>
</tr>
<tr>
<td>E. G. Millward</td>
<td>Welsh</td>
<td></td>
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<tr>
<td>T. Moseley</td>
<td>Law</td>
<td></td>
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<tr>
<td>R. R. Pritchard</td>
<td>Latin</td>
<td></td>
</tr>
<tr>
<td>G. Rees</td>
<td>Economics</td>
<td></td>
</tr>
<tr>
<td>B. F. Roberts</td>
<td>Welsh</td>
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<tr>
<td>D. Thomas</td>
<td>Economics</td>
<td></td>
</tr>
<tr>
<td>D. Trevena</td>
<td>Physics</td>
<td></td>
</tr>
<tr>
<td>C. Williams</td>
<td>Religious Studies</td>
<td></td>
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<tr>
<td>G. W. Williams</td>
<td>History</td>
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<tr>
<td>P. Williams</td>
<td>Physics</td>
<td></td>
</tr>
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</table>

### Teachers

<table>
<thead>
<tr>
<th>Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Gwyneth Stephens</td>
<td>Ysgol Gymraeg</td>
</tr>
<tr>
<td>John Jones</td>
<td>Ysgol Gymraeg</td>
</tr>
<tr>
<td>Elen Davies</td>
<td>Ysgol Gymraeg</td>
</tr>
<tr>
<td>Rona Davies</td>
<td>Ysgol Gymraeg</td>
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<tr>
<td>Mair Jenkins</td>
<td>Ysgol Gymraeg</td>
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<tr>
<td>Mary Jones</td>
<td>Ysgol Gymraeg</td>
</tr>
<tr>
<td>Elisabeth Richards</td>
<td>Ysgol Gymraeg</td>
</tr>
<tr>
<td>Richard Davies</td>
<td>Ysgol Gymraeg</td>
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<tr>
<td>Megan James</td>
<td>Ysgol Gymraeg</td>
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<tr>
<td>Rhiannon Rhys</td>
<td>Ysgol Gymraeg</td>
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<tr>
<td>Emyr Evans</td>
<td>Ysgol Gymraeg</td>
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<tr>
<td>Elfed ap Gomer</td>
<td>Ysgol Penweddig</td>
</tr>
<tr>
<td>Rhiannon Roberts</td>
<td>Ysgol Penweddig</td>
</tr>
<tr>
<td>Hywel Jones</td>
<td>Ysgol Penweddig</td>
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</tbody>
</table>
### Appendix III continued

<table>
<thead>
<tr>
<th>Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Rhun Owens</td>
<td>Ysgol Penglais</td>
</tr>
<tr>
<td>Emrys Harries</td>
<td>Ysgol Penglais</td>
</tr>
<tr>
<td>Elizabeth Jones</td>
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<tr>
<td>Thomas G. Jones</td>
<td>Ysgol Penglais</td>
</tr>
<tr>
<td>R. E. Griffiths</td>
<td>Ysgol Penglais</td>
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<tr>
<td>E. Jones Davies</td>
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### Urban Non-Educated - Aberystwyth

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
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<tbody>
<tr>
<td>Mary Davies</td>
<td>2 Crynfryn Buildings</td>
</tr>
<tr>
<td>Elin Griffiths</td>
<td>10 Crynfryn Buildings</td>
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<tr>
<td>Jannett Davies</td>
<td>11 Crynfryn Buildings</td>
</tr>
<tr>
<td>Elizabeth Rowlands</td>
<td>2 Crynfryn Row</td>
</tr>
<tr>
<td>M. Evans</td>
<td>3 Crynfryn Row</td>
</tr>
<tr>
<td>B. Jenkins</td>
<td>7 Crynfryn Row</td>
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<tr>
<td>M. Roberts</td>
<td>13 Greenfield Street</td>
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<tr>
<td>S. Jones</td>
<td>15 Greenfield Street</td>
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<td>A. Evans</td>
<td>20 Greenfield Street</td>
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<tr>
<td>G. Evans</td>
<td>25 Greenfield Street</td>
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<td>T. Jones</td>
<td>27 Greenfield Street</td>
</tr>
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<td>M. Owen</td>
<td>12 Greenfield Street</td>
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<tr>
<td>M. Jones</td>
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### Rural Non-Educated - Llangwyryfon

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<tr>
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<tr>
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<td>Pen y bont</td>
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<td>D. Jones</td>
<td>Abernac</td>
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<td>J. Jones</td>
<td>Talar Deg</td>
</tr>
<tr>
<td>M. Jones</td>
<td>Golygfà</td>
</tr>
<tr>
<td>R. Llwyd</td>
<td>Ty'r ysgol</td>
</tr>
<tr>
<td>Miss Morice</td>
<td>Gwarcaeau</td>
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<td>Miss Morrice</td>
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<td>Name</td>
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<td>Aberdeuddwr</td>
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<td>D. Thomas</td>
<td>Y Felin</td>
</tr>
<tr>
<td>Mrs. Williams</td>
<td>Rhandir Ucha</td>
</tr>
<tr>
<td>D. Griffiths</td>
<td>Argoed</td>
</tr>
</tbody>
</table>
Not surprisingly, the latest census returns reveal a further decline in the numbers of Welsh speakers to 524,832. It is noticeable, however, that this decline is considerably less steep in the 1971-1981 decade than in the previous ten years. That period saw a fall from 26.0% to 20.8% but the decline in the succeeding decade has been only to 19.84%. This clearly represents a levelling of the overall trend.

The trend in respect of monolingual speakers has, however, resumed its downward course, falling to 0.8% of the total population following a rise to 1.3% in 1971. This continued fall strongly supports the contention that the 1971 rise was largely illusory and brought about by false replies in the highly politicized atmosphere at the time of questioning.

The change of county boundaries following the reorganization of local government in Wales has made a direct comparison with the 1971 figures less than easy. However, the following table sets out the figures for 1971 and 1981, split according to age group, for a number of districts where a comparison is possible.
<table>
<thead>
<tr>
<th></th>
<th>Anglesey</th>
<th>Merioneth</th>
<th>Cardigan</th>
<th>Pembroke</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-4</td>
<td>49.2</td>
<td>59.5</td>
<td>63.9</td>
<td>84.9</td>
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<tr>
<td>5-9</td>
<td>67.1</td>
<td>78.6</td>
<td>71.7</td>
<td>14.4</td>
</tr>
<tr>
<td>10-14</td>
<td>77.3</td>
<td>71.7</td>
<td>15.4</td>
<td></td>
</tr>
<tr>
<td>15-24</td>
<td>67.0</td>
<td>78.3</td>
<td>67.2</td>
<td>59.7</td>
</tr>
<tr>
<td>25-44</td>
<td>71.7</td>
<td>73.0</td>
<td>67.2</td>
<td>59.7</td>
</tr>
<tr>
<td>45-64</td>
<td>73.0</td>
<td>73.5</td>
<td>72.2</td>
<td>68.5</td>
</tr>
<tr>
<td>65+</td>
<td>70.2</td>
<td>73.0</td>
<td>76.5</td>
<td>73.2</td>
</tr>
<tr>
<td>Overall</td>
<td>65.7</td>
<td>64.1</td>
<td>73.5</td>
<td>74.4</td>
</tr>
</tbody>
</table>

All these groups except Merioneth show a decline in the overall percentage of Welsh speakers. The decline is marginal in Cardigan but slightly greater than the national average in the Pembroke district.

It is more interesting, however, to consider the spread of results on an age basis. It is clear here that all the districts demonstrate a decline in the percentage of Welsh among older speakers but that this is largely offset by a compensatory increase in the younger age groups with increases in the 3-14 age groups for Anglesey and Pembroke and 3-24 for Merioneth and Cardigan.

It is perhaps suggestive to compare these results with those obtained in the primary school survey outlined at pages 58-61 above. The latest census returns for this age group correlate more closely with column four of Figure Five set out there (i.e. including learners) than with the percentage for fluent speakers (column three). It is clear that in assessing their children for Welsh speaking for census purposes, parents adopt a similarly less stringent measure.

Footnote 1: The former county of Merioneth and the new district of Merionnydd are not strictly comparable as the Edeyrnion RD was transferred to the Glyndwr district in neighbouring Clwyd on reorganization.
It is regrettable that the aged-based census results are not collated on the basis of periods of equal duration (e.g. ten years). Results could then be compared easily from census to census. Nevertheless, it is suggestive that the natural decline in older speakers is being offset in the younger groups. Presumably, contributory factors in this increase are the presence of bilingual schools and the efforts of language teachers. It remains to be seen whether this trend will continue in future censuses.
Aberystwyth
TOWN CENTRE LAYOUT
N.B. One-way traffic not indicated