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SOCIAL CORRELATES AND LINGUISTIC CONSEQUENCES

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ABSTRACT

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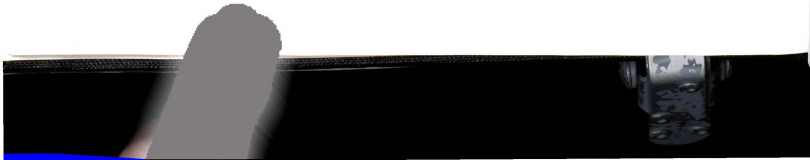
The language contact situation in Zimbabwe is of interest to linguists because the speech used by both Shona-English bilinguals and Shona monolinguals provides challenges for linguists interested in a strictly internally motivated ac-count of language change. Heavy pressure from English as the language of government, education, business and media during the colonial period has resulted in high frequency English origin words in Shona which do not meet traditional criteria for loan words. The purpose of this research was to determine the nature of such words in present day Shona. One focus was phonological integration of English origin words to Shona, and the role of sociocultural factors in accounting for dif-ferences in rates of integration. A second goal was to determine the extent of English origin core vocabulary in Shona, with a focus on numerals. To provide the corpus, 132 ten-minute tape recorded interviews were conducted by native speakers of Shona with a sample of rural and urban speakers, older and younger speakers, more educated and less educated speakers, and males and females. Loans were identified as



those English origin words appearing in a minimum of three transcripts and those found in a standard Shona dictionary. Indices of phonological integration (1=fully integrated, 0=unintegrated) were calculated with a resulting integration index of .37 for all speakers for all loan types. Phonotactic constraints on syllable shape appear to be relaxing for English origin loans, and there is evidence of /l/ and /θ/ entering the phonemic repertoire of some individuals. Resi-dence, education and gender were found to be significant sources of variation in degree of phonological integration. English origin numerals accounted for 86% of total numerals in the corpus. The results provide evidence that traditional criteria for identifying loans are inappropriate; only a fre-quency criterion will identify predictable elements in the corpus. Further, the results point up the need for recog-nizing external influences to account for language change.

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CHAPTER 1. INTRODUCTION.

In Zimbabwe, Shona is the mother tongue and home language of 75% of the population, while English serves as the language of government, business and education. Despite Zimbabwe's 1980 independence, the colonial legacy of broad diglossia is likely to remain (Ngara, 1982; Chimhundu, 1982). Thomason and Kaufman (1988) have argued that when one language in a contact setting is associated with power and prestige, the lower status language is likely to borrow lexical items from the higher status language. These additions to the lexicon may include not only loans for new cultural items but replacement words for core vocabulary (Scotton and Okeju, 1973, 871). The lexical additions may in turn may bring in phonological and morphosyntactic features from the source language into the borrowing language. Ngara (1982,78) and Chimhundu (1982,186) have predicted just these sorts of effects in the phonology and lexicon of Shona in Zimbabwe under pressure from English. In particular, these linguists note the entrance of a growing number of unassimilated loans into the Shona lexicon.

While the examples from Chimhundu and Ngara give a clue to the impact of English on Shona, only a large corpus of natural language will provide enough data to see if their examples are just isolated phenomena, or if the language has indeed undergone major modification (Weinreich, 1964,44). Such a study is important because expansions such as these run counter to discussions of the nature of language change

in much of the traditional literature.

In the domain of phonology, several of the hypothesized additions to the sound system of Shona contradict the predicted direction of change under a markedness or naturalness model of language change (Hyman, 1970; Lovins, 1975; Kaye and Nykiel, 1979). For example, the addition of disallowed consonant clusters to the phonotatic system, and the failure to insert apogogic vowels on loans take the Shona sound system away from the "ideal" CV syllable (Van Coetsem, 1988, 32).

In fact, the very concept of an "unassimilated loan" is a contradiction in terms in many traditional texts. The principle criterion for differentiating code switching and borrowing in much of the literature is that borrowings are items from a foreign source which have been phonologically integrated while code switches are unassimilated items (Lehiste, 1988; McClure, 1981; Bentahila and Davis, 1983; Berk-Seligson, 1986; di Sciullo, Muysken and Singh, 1986; Sridhar and Sridhar, 1980; Bokamba, 1988; Poplack, Sankoff and Miller, 1987). If there are a number of high frequency loans in Shona which have not been assimilated, another means to distinguish between code switching and borrowing will have to be established. Indeed, a new definition of borrowing will be needed.

As to the question of what type of words may be borrowed, many studies present gap filling as the key motivation for borrowing and minimize the possibility of

borrowing into the core lexicon (Haugen, 1953; Weinreich, 1964; Fabian, 1982). That is, speakers will bring in terms for new cultural and material items, but will resist the importation of words for concepts for which there are already words in the native language. However, several of the semantic fields of borrowed words reported by Ngara and Chimhundu (e.g., numerals) represent core areas.

The discrepancy between theory and actual language data may be due to the fact that many of the traditional assumptions about language change have been based strictly on language-internal structural criteria. Thomason and Kaufman point out the advantage of using both internal and external explanations so that a single unified explanation can be made for a variety of structurally independent changes. They note, for example, that the phonemicization of English voiced fricatives can be partially explained by the internally motivated loss of final schwas and the simplification of geminate consonants in the fourteenth century. At the same time, the external impact of the large number of French loanwords that came into Middle English contributed to the change (Thomason and Kaufman, 1988, 61).

While Thomason and Kaufman point to the potential role of external factors of the language contact situation, other linguists (Giles, Bourhis and Taylor, 1977; Le Page and Tabouret-Keller, 1985) have emphasized the importance of individual motivations and characteristics of speakers in accounting for differences in code selection. To include

these factors, an integral component of this study is to see if and how differences between groups of speakers affect the nature of borrowed words in their speech.

The purpose of this dissertation will be to study the linguistic consequences to Shona of pervasive contact with English over the last 90 years, with a focus on the nature of English words borrowed into the language, and the characteristics of the speakers who use them. The study will be based on an analysis of the borrowed words of English origin in taped-recorded conversations between Shona interviewers and Shona speakers of differing ages, jobs, genders, educational backgrounds and home areas. The resulting transcripts will provide a corpus of current Shona which can be quantified, so that predictions such as those of Ngara and Chimhundu about changes in the linguistic system can be tested objectively.

Questions to be addressed will include the following:

1. What is the degree of phonological integration of English loans in spoken Shona?

2. Is there evidence pointing toward an alteration of the Shona phonological system?

3. Is the degree of phonological integration of English loans correlated with socio-cultural characteristics of the speaker?

4. Are there additions to the Shona core vocabulary from English?

5. What is the overall impact of borrowing on the

linguistic system of Shona?

Besides addressing questions directly tied to the data, the research will also focus on questions related to broader issues of language contact.

6. How do changes in the Shona linguistic system brought about as a result of borrowing illuminate the discussion of internally versus externally motivated language change; of "natural" change?

7. Do the data illuminate the question of how best to distinguish borrowing and code switching in a corpus of natural conversation?

8. Do the data support a modified definition of borrowing and its place in theories of language contact and language change?

CHAPTER 2. PREVIOUS RESEARCH ON LINGUISTIC BORROWING.

What is borrowing? Haugen (in press) describes "borrowing" as "a general and traditional word used to describe the adoption into a language of a linguistic feature previously used in another." He notes that the metaphor is misleading because the borrowed language material is neither a temporary acquisition nor returned to the loaning language. But at the time of the discovery of laws of sound change in the early nineteenth century, linguists needed a term for material which did not follow the rules. At the time, the focus was on the genetically pure components as the "real" language, and the borrowed material as outside the system.

The role of borrowing in language change. While a few early linguists (Whitney, 1881, 18; Schuchardt,1979 [1885], 15) gave a key role to borrowed materials in the study of language systems, for the most part, linguists from Saussure to Chomsky have focused on the regularized competence of the ideal speaker-hearer (Chomsky, 1965). Weinreich's term "interference" (1964) for results of language contact is indicative of the view of borrowed materials as degenerative and contributing to unwanted variation in an otherwise homogeneous system.

The original focus on language change motivated by internal pressures within the language has led to a number of proposed constraints on what materials might be borrowed.

> From Meillet, Sapir, and the Prague linguists to Weinreich to the most modern generativists, the heirs of Saussure have proposed linguistic constraints on linguistic interference. These constraints are all based ultimately on the premise that the structure of language determines what can happen to it as a result of outside influence. (Thomason and Kaufman, 1988, 12-13)

Typological constraints on borrowing. Typological distance between languages in contact has been argued as a constraint limiting several types of borrowing. Meillet (1921,87) was the first of many linguists to argue that languages in contact need to be very similar typologically if grammatical loans are to take place. These linguists believe that conflicting morphologies make loans less likely in disparate languages. Ornstein (1976,77) includes linguistic distance in his formula for measuring constraints on lexical borrowing.

Sapir (1921,200) believed that foreign sounds could enter a language only if the new variations were in the direction of native drift of that language. Cassano (1972,5) uses the term "latency" to describe "a structural predisposition in the source language to the acceptance of the units of the target language." He cites Weinreich's contention that language contact "could be considered to have, at best a triggering effect" (Weinreich, 1963, 25) to release or accelerate latent internal tendencies.

Constraints to borrowing based on naturalness. Hyman (1970) and Lovins (1975) maintain that when loans are assimilated, if no equivalent phoneme exists in the donor

language, borrowers will follow universal processes in integrating the word into their language. Haugen (1953), Weinreich (1964), Lehiste (1988), Appel and Muysken (1987) have minimized the possibility of borrowing new phonemes into a language.

Constraints to expanding the lexicon. Another set of constraints based on the borrowing language is the nature of lexical items which may be taken in. Haugen (1953) and Weinreich (1964) minimize the possibility of borrowing core nouns (kinship terms, numerals, personal pronouns) and function words. Fishman (1972) and Fabian (1982) describe a number of studies which focus on borrowing as a means to fill gaps in a lexicon. Under such a framework, we would expect the borrowing of nouns to fulfil the extended referential function of a language for newly imported concepts and material culture, but we do not anticipate borrowings for words which duplicate in meaning those already in the lexicon.

How data from Shona illuminates the issues. Recent work on contemporary spoken Shona by Chimhundu (1982) and Ngara (1982) hints at evidence of language change running counter to the constraints outlined above. Imposed by the colonial British, English has been the language of government, law, education, and business for nearly 100 years. Ngara (1982, 94) writes: "An urbanized and educated Shona man or woman may find it difficult to talk for any length of time without introducing authentic English into his Shona speech."

Typology. The impact of English on Shona is surprising under the traditional framework, because English and Shona are radically different typologically, as noted in Carter and Kahari (1979), Doke (1931a, 1931b), Fortune (1955, 1957, 1966, 1981), and Odden (1981. Shona is a highly agglutinative Bantu language with 21 noun classes and a complex verbal system. English borrowings thus have to enter a system which requires morphological adaptation. Martinet noted that the study of language contact is particularly illuminating when the contact is between two clearly distinct languages (Weinreich, 1964, vii); Shona and English surely fill the bill.

One obvious benefit of studying contact between languages of radically different typologies is that it is relatively easy to identify material from foreign sources. Holden (1976), Rothwell (1980) and Hock (1986) discuss the difficulties in identifying the source of lexical items in a language in contact with similar dialects and closely related languages. Recent studies by Kartunnen (1982; Nahuatl/ Spanish), Hill and Hill (1986; Nahuatl Spanish), Fabian (1982; Swahili/French), Mkude (1986; Swahili/English), Bokamba (1988; Lingala/French) and Nartey (1982; Adanme/ English) offer clear evidence of the major impact of a donor language on a typologically different host language.

Naturalness. Chimhundu and Ngara note that some of the more recent loans into Shona are coming into the language without being fully assimilated. This has resulted in two

developments in the phonological system of Shona. The first is an expansion of the phonotactic system. The standard Shona syllable is (C)V, and earlier borrowings were integrated with the addition of epenthetic and paragogic vowels, or by simplification of disallowed consonant clusters. For example, "Christmas" was assimilated to [kirisimasi] or [kisimasi]. Chimhundu and Ngara note recent loans including the clusters /kr/, /gr/, /tr/, /dr/, /pr/, /br/, /st/, /sp/, /sm/, /sk/, /sn/ and even /str/ and /spr/. Formerly well integrated loans appear to be being "reborrowed" (Haugen, 1953, 394) by some speakers in an unassimilated form. The result is that different speakers pronounce the same loan with varying amounts of assimilation. Thus, Chimhundu cites "Christmas" as appearing variously as /kismusi/, /kirisimasi/, /krisimasi/, /krismasi/ and /krismas/.

These new variants take the language away from "the typical Shona CV phonological syllable", described by Van Coetsem (1988) as the "ideal" syllable (Van Coetsem 1988). This proliferation of additional clusters does not fit in well with the idea that languages move away from marked features toward less marked ones (Bailey 1973).

A second change to the Shona system is the appearance of the unassimilated phones [l] and [θ] in recent loans and reborrowings. For example, the number "three" appears unassimilated in high frequency in preliminary data. The interdental fricative is a rare and unstable phone (Hock,

1986, 132) occurring in few of the world's languages. If this relatively marked phoneme is indeed coming into Shona in loan words, it would be similar to the inclusion of the uncommon clicks from Khoisan languages in borrowed words in the Nguni languages of the southern African region.

Core lexicon. Ngara highlights time vocabulary as particularly susceptible to replacement by English lexical items. He notes that in a survey of Form Three secondary school students, only 20% could give the Shona words for months and very few could name the five seasons. He notes (78) "it is doubtful whether the generality of Shona children can count properly in Shona. Instead words of English origin are used." This is the type of core vocabulary that is supposed to be impervious to language contact, as noted in Appel and Muysken (1987,171) and Fabian (1982,37).

Speakers in contact. It will be argued that the anomalies noted in the Shona data, in the areas of phonology, morphology and lexicon, can be traced to changes resulting from long-term and intensive contact among speakers of languages in contact. Looking at the sociocultural characteristics of the speakers will help to explain some of the linguistic outcomes.

Scotton and Okeju (1973) in one of the earliest studies focussing on sociocultural characteristics found a relationship between speakers' sub-group memberships and their borrowing patterns in Swahili and Luganda borrowings in Ateso. In their study, core borrowings occurred only in

areas where Ateso was a minority language and its speakers were far removed from the cultural center for the group.

Subsequent studies have found correlations between several different socio-cultural factors and rate of assimilation and proportion of borrowed lexicon. Some studies have found men to use borrowed words at higher rates than women, and women more likely to assimilate the borrowings than men (McClure, 1981; Berk-Seligson, 1986; Barton, 1980; Whiteley, 1963). These studies would support work by Labov and Trudgill that argue that women are more conservative in their use of language then men.

Age has been found to be a significant factor in other studies, with younger speakers borrowing more words and assimilating them less than older speakers (Hill and Hill, 1986; Nartey 1982; Poplack, Sankoff and Miller, 1987). Further, as seems intuitively logical, some studies have found more educated speakers borrowing more and assimilating less than less educated speakers (Ljung, 1986; Siachitema, 1987,7).

In Poplack, Sankoff and Miller's 1987 Ottawa study of English borrowings in Canadian French, neighborhood was a key factor, with speakers in neighborhoods with the greatest environmental exposure to English showing the greatest amount of borrowing (39). The urban versus rural settlement pattern appears to be of particular importance in African contexts (Ngara, 1982; Kashoki, 1978; Siachitema, 1987; Whiteley, 1963), where urban speakers were consistently found to more

likely to borrow and less likely to integrate borrowings. In the African setting, it is quite possible that an urban home results in a higher degree of bilingualism, the factor most highly correlated with use of borrowings in several studies including Haugen, 1953; Mougeon, Beniak and Valois, 1984; Poplack, Sankoff and Miller, 1987.

It is important to note that in each of the studies mentioned above, only one or two of the sociocultural factors were found to be significantly correlated with borrowing patterns. The same factors which were significant in one study were not significant in several others. It follows that we cannot look at sociocultural factors in isolation, any more than we can look at linguistic factors out of their social context. Only an understanding of each unique linguistic setting will explain the correlation of a particular factor in one case and the lack of correlation in another. To that end, Chapter 3 contains a description of the social context in present day Zimbabwe.

CHAPTER 3. THE SOCIOLINGUISTIC SETTING

As Thomason and Kaufman (1986,4) write:

> ...the history of language is a function of the history of its speakers, and not an independent phenomenon that can be thoroughly studied without reference to the social context in which it is embedded. We certainly do not deny the importance of purely linguistic factors such as pattern pressure and markedness for a theory of language change, but the evidence from language contact shows that they are easily overridden when social factors push in another direction.

The purpose of this chapter is to describe some of the social factors operative in Zimbabwe, so that that the study hypotheses will reflect both the results of previous research on borrowing, and the social context for the present research.

3.1 Functions of Shona and English in Zimbabwe.

The borrowing in focus in this study came about due to the contact between speakers of Shona and speakers of English in Zimbabwe over the last 100 years. Ethnic Shona speakers, 75% of the population, have lived in southern Africa for at least seven hundred years. English speakers, who never exceeded 5% of the population, arrived with colonialism in 1890 (Ngara, 14).

When the British imposed their rule, English became the language of government and business. English also became the medium of instruction in British curriculum schools, where Shona was not formally taught as a school subject until the late 1960's (Ngara, 19). Shona remained the language of

home, family and ethnic solidarity for its native speakers.

Ferguson (1959) described such a separation of linguistic functions as "diglossia". In the original formulation, one dialect of a language (e.g., Arabic) carried out the so-called High purposes--literary, religious, educational, legal, historical, international--while a Low home variety was used for purposes of intimacy and solidarity. Fishman (1972) later expanded the term to include speech communities like that in colonial Rhodesia where two different languages carried out the functions.

In post-colonial societies of Africa, there is a legacy of this separation of language function in many urban communities. The languages in complementary distribution include Arabic and Moroccan French (Bentahila and Davies, 1983, Morocco); English and Yoruba (Banjo, 1986, Nigeria); Swahili and Ilala (Barton, 1980, Tanzania); French and Lingala (Bokamba, 1988, Zaire); English and Bemba (Kashoki, 1978, Zambia); English and Swahili (Mkude, 1986, Tanzania); English and Luganda (Mosha, 1971, Uganda); and English and Kamba (Whiteley, 1963, Kenya).

In these settings, the need for a language for national unity in societies with a number of competing ethnic groups has resulted in a retention of the language originally associated with the colonizers. The High language has come to be associated with a speaker's identity as an educated person in the society (Scotton, 1987). Further, pragmatic concerns such as expense have impeded development of local

languages into use in wider functions.

Since Zimbabwean independence in 1980, Shona speakers have taken the positions of power in government so that we might expect an expansion of functions for which Shona is appropriate. However, there are several reasons to predict that English will maintain many of its pre-Independence roles, as it has in the other post-independence societies noted above.

In government, Shona, Ndebele and English are now all official languages. While Ndebele speakers make up only 15% of the population, they have significant political power. This group would not view favorably efforts to give Shona a predominant role in government. President Mugabe's goal of unity within a one-party government including Shona, Ndebele and English speakers plus several minority groups would not be served by promoting Shona as the language for parliamentary speeches and national addresses.

In urban areas, many firms are still being run by white English speakers, while in rural areas, many farms and mines are similarly run. Thus, English is still a language of work for many.

In the media, editors are facing the same inter-ethnic group issues mentioned for government. The national daily paper, the Herald, is a 12-page edition in English. There is a weekly paper in Shona, Kwayedza, which has a similar reputation to the National Enquirer in the United States. Most television shows are imported U.S. or British programs;

there is very little money to produce local programs in any language. The nightly news usually includes clips from the British Broadcasting Company and the U. S. Cable News Network, after a news summary read in Shona, Ndebele and English.

There are three radio stations in Zimbabwe. Radio 1 is an English language Zimbabwe version of BBC which seems to be aimed at the remaining white population. Radio 2 is a music and public affairs program in Shona and Ndebele. Radio 3 resembles a U.S. radio station for the young adult market; it is in English, with reporters from all ethnic groups in the country providing the commentary. Songs played are in all three major languages. Interestingly, the station most often heard by this researcher in shops and bus stations in both rural and urban areas was Radio 3.

One sphere in which Shona has increased in importance is education. In fact, all of the mother tongues in Zimbabwe are now being used as the medium of instruction up to grade three. In the early grades, children learn English which is still the medium of instruction in high school. Shona is now a subject for O and A level secondary school exams, and is also being taught as a second language.

However, even in education, the role of Shona has remained somewhat limited. Since English is the medium of secondary and tertiary education, many Shona speakers never achieve advanced writing skills in their first language. Considering the expense of translating secondary and tertiary

texts into Shona and the present state of the economy, it is unlikely that Shona will take on an expanded role in education in the near future despite the fact that many national educators would very much like to promote the language in all the spheres noted above communication (Natsa, personal communication).

The importance of English as the language of higher primary and secondary education may have even increased since Independence, due to the rapid increase in the number of schools opened, particularly in rural areas where education was inaccessible before Independence. Schooling is such a highly valued commodity in Zimbabwe today that when people are asked about their outlook for the coming five years, most place their hopes on the children now in school.

English remains particularly important as a language of wider communication within the region and with the world beyond. Zimbabwe has a strategic position in the politics of southern Africa; its leaders make frequent trips to other countries where the lingua franca is English. The prominence of BBC and CNN reports on local news broadcasts indicates the importance of English as the window to the outside world.

3.2 Shona speakers and their identities.

The previous discussion has focussed on Shona and English, and their functions in Zimbabwe society as a whole. However, there is a great deal of variability in the use of these two languages when we look at individual speakers in

the contact setting.

A predominant settlement pattern for Shona speakers in Zimbabwe is for men from the rural area to migrate to urban areas for work, while the women remain on the farms. This type of urbanization is common in Africa, also reported in studies in Barton, 1980; Kashoki, 1978; Whiteley, 1971; and Siachitema, 1987.

This practice began in colonial days when farmers were not allowed to sell their grain for cash. With no access to a cash economy, men were forced to go to the city to earn money for clothing, school fees and any other items beyond the subsistence level. Women remaining on the farms provided a hedge against risk, in that food was always going to be available back at the musha or home farm.

The interdependence of urban and rural family members led to constant migration back and forth, with men employed in the city frequently going home to bring money and get food, and women and other rural family members going to the city to bring food and get money.

Another reason behind migration to the cities and towns was that before Independence there was limited access to education in the rural area. Academically talented family members were often sent to boarding schools in urban areas because there was no secondary school within walking distance of their home. When asked about improvements in life since Indendence, many interviewees mention the opening of schools in the rural area as the best thing to have happened.

However, urban boarding schools area still include many students from remote areas.

Shona speakers in urban areas have inter-ethnic contacts and work or school requirements which result in their use of both English and Shona in their daily lives. For such speakers, Shona is the language of solidarity, representing their ethnicity, while English is the language which identifies them as educated persons. The ability to "speak two" (Hill and Hill, 1986,3) has been seen as essential for both economic survival and purposes of dual identity in a number of studies (Scotton, 1987; Southworth 1980, 132; LePage and Tabouret-Keller, 1985; Giles, Bourhis and Taylor, 1977).

In contrast to urban residents, most rural speakers can fulfil their daily linguistic requirements, whether casual or formal, with Shona. Many farmers have had no access to education, and thus no formal means to acquire English. They have no occasion to come in contact with native speakers of English.

Thus, there is a large group of urban Shona speakers who have some degree of bilingualism, and frequently use English, and another large group of rural Shona speakers who are monolinguals, using Shona almost exclusively. It seems that we could reasonably expect that English would have a far greater impact on the Shona of an urban bilingual speaker than on the Shona of an rural monolingual speaker.

On the other hand, as noted above, there is continuous

contact between urban and rural ethnic Shonas with men regularly returning to their musha, and women and other family members often visiting the cities. It will be interesting to see whether this interaction has the effect of "purifying" the Shona of the urban speaker, or "polluting" the Shona of the rural speaker. There is also the possibility of neither or both of these effects.

CHAPTER 4. RESEARCH HYPOTHESES.

Chapter 2 outlines the benefits of a study of the nature of English borrowings in contemporary Shona, while Chapter 3 describes the sociolinguistic setting for such a study. This chapter presents the hypotheses which follow from these discussions.

4.1 Identifying English loans. In any study of lexical borrowing, the identification of loans in the corpus is crucial to the validity of study hypotheses. Harking back to Haugen's definition of borrowing, we want to determine which linguistic materials have been adopted into Shona from English. We need to be able to distinguish loans, permanent additions accessible to both bilingual and monolingual Shona speakers, from code switches, selections from Shona and English in the same conversation by a bilingual speaker (Myers-Scotton, 1990, 3).

Certain traditional criteria used to differentiate borrowings and code switches will not work in the Zimbabwe setting. As noted earlier, loans in many studies are defined as those words of foreign origin which are phonologically and morphologically integrated into the host language. Ngara and Chimhundu have already identified high frequency English origin words currently used by many Shona speakers which do not meet these criteria. They have also identified loans which are not filling gaps in the Shona lexicon (e.g., English numerals); gap filling was mentioned earlier as another traditional criterion for potential loans.

One of the easiest rules to apply is simply to call any one-word foreign source item a "nonce borrowing" (Poplack, Sankoff and Miller,1987,40; Bentahila and Davis, 1983), thus requiring code switches to be phrasal in nature. However, this approach fails to take into account the possibility of a word being a one-time code switch by a single speaker which may never again occur in the speech of that speaker, let alone occur with high frequency in the general public, including the speech of monolinguals. Furthermore, requiring a code switch to be two words or more seems an artificial and arbitrary criterion. Even Poplack, Sankoff and Miller (1987,40) concede that many of their "nonce borrowings" (one word items from a foreign source) behave remarkably like the code switches within their data set. Many code switching studies accept the possibility of one-word code switches (Bokamba, 1988; Myers-Scotton, 1987, 1989; Berk-Seligson, 1986).

Since the previously cited traditional means of loan identification have been deemed ineffective for this sociocultural setting, two other criteria will be employed, one traditional and the other of more recent origin. A word will be classified as a loan if: a) it is attested in the Standard Shona Dictionary (Hannan, 1974); OR b) it occurs in the speech of at least of three interviewees.

The dictionary requirement is an old criterion for establishing borrowings: that they are "accepted within the speech community as bonafide elements" (Mcclure, 1981, 70;

also Bokamba, 1988; Poplack Sankoff and Miller, 1987; Kashoki, 1978; Gardner-Chloros, 1987; Bentahila and Davis, 1983; Joshi, 1985; di Sciullo, Muysken and Singh, 1986). The Standard Shona Dictionary is a particularly authoritative source because, as Ngara (1982,18) writes, it "constitutes a major contribution to the development of the language and is one of the best dictionaries to come out of Africa".

However, not all potential borrowings are to be found in the dictionary, even one as highly valued as the Standard Shona Dictionary. If we recall Ngara's claim that many Shona speaking children do not use Shona numbers, we may be surprised to find that English-origin numbers are nowhere to be found in the dictionary. Their absence may be due to the fact that high frequency words in a language are not necessarily acceptable from a cultural point of view. In Hill and Hill's study, speakers of Mexicano showed great concern that their number system is not indigenous, despite the fact that Spanish numbers were borrowed in the 16th Century (1986,53).

To capture potential high frequency words regularly used by both monolingual and bilingual speakers but which are not in the dictionary, the three-minimum occurrence requirement suggested in Myers-Scotton (1989,27) will be employed. Myers-Scotton argues that the only truly objective criterion for distinguishing code switched and borrowed material is that borrowed material is predictable; we can expect recurrences of a borrowed form in a large corpus of data. On

the other hand, a code switch is not predictable. We can expect a pattern of the use of English words in the speech of a Shona-English bilingual. However, only those forms which recur in the speech of others should properly be considered loans in Shona. These loans are the words which we could expect to hear in the speech of either monolinguals or bilinguals.

Myers-Scotton has operationalized this criterion by stating that if a form occurs three times in transcripts of ten hours of speech it will be considered a borrowing and not a switch. To strengthen the criterion, in this study a form must occur in the transcripts of at least three different individual speakers. With the preceding working criteria for identifying loans in mind, the following hypotheses have been developed.

4.2 Study hypotheses

HYPOTHESIS 1. Not all English loans in spoken Shona will be fully assimilated to the Shona phonological system.

HYPOTHESIS 2. The phonological system of Shona will show a modification from the descriptions in Ngara (1982,33) and Mkanganwi (1975,226):

2a. by a relaxing of phonotactic constraints, allowing closed syllables and additional consonant clusters and;

2b. by the addition of phonemes /l/ and /θ/.

HYPOTHESIS 3. The degree of phonological assimilation of English loans on the part of individual speakers will

differ, depending upon sociocultural characteristics of the speaker. Greater phonological integration will be expected from:

4a. rural speakers than urban speakers.

4b. older speakers than younger speakers.

4c. less educated speakers than more educated speakers.

4d. women than men.

HYPOTHESIS 4. The core lexicon of Shona will show an expansion with speakers using proportionally more English numerals than Shona numerals.

4.3 Operationalizing the hypotheses. It is necessary to operationalize these hypotheses so that the transcripts of natural conversation will yield the objective data needed to to test the validity of the predictions.

Sociocultural characteristics:

Rural/urban. Half of the 132 interviews in the sample were conducted in Mutoko, a rural area 120 kilometers from Harare, while the other half were conducted in Chitungwiza, an urban area with a population of 500,000 located 20 kilometers from Harare.

Older/younger. "Older" is to be defined as over 35 years of age, while "younger" is to be defined as 25-35.

Less educated/more educated. "Less educated" is to be defined as possessing a grade seven education or less. "More educated" is to be defined as possessing higher than a grade seven education.

Degree of integration. Hypotheses 1, 2 and 3 discuss the degree of integration of English loans in Shona. To measure the degree of phonological assimilation of words analyzed as borrowed, I will modify the procedure used by Poplack and Sankoff (1984). Index numbers reflecting the integration behavior of individual speakers will be calculated for both loan types and loan tokens used by each speaker. To illustrate the use of the terms "type" and token", a transcript might contain the borrowed noun [foni] 'phone' which occurred three different times during the interview. The loan [foni] would be counted as one type with three tokens, or occurrences.

a) MEAN TYPE INTEGRATION is the average phonological integration index for English origin loan types for each speaker. Index values assigned will be: 0 = unintegrated (Zimbabwean English phonology); 0.5 = partially integrated; 1 = completely integrated to the Shona phonological system.

The focus of this statistic is the integration behavior of individual speakers. To illustrate, one speaker might pronounce the word agasiti 'August' as [agast]. No vowels have been added to break up the -st- cluster, and no final vowel has been added. In fact, the speaker has pronounced the word exactly as he would if it appeared in a sentence in the Standard English spoken in the region. Thus, for this speaker for this type, the index assigned for this word would be 0.

Another speaker might pronounce agasiti as [agasti]. Now the word has been partially integrated with the addition of a final vowel. However, the -st- cluster remains intact. So for this speaker, the index assigned for this type would be 0.5.

A third speaker could pronounce agasiti in the fully integrated form indicated in its Standard Shona spelling: [agasiti]. For this speaker, the index for the loan type would be 1.

The composite index number for each speaker indicates the average integration of all the loan types which appeared in his particular interview. This number will give us a means to compare the overall integration behavior of speakers despite the fact that different speakers used different individual loans.

Some loans have the same realization in Shona and in the variety of Standard English used in Zimbabwe. Examples include ticha 'teacher' and tuu 'two'. These words will be noted for their relevance in other hypotheses but will not be recorded in determining the integration indices.

b) MEAN TOKEN INTEGRATION: the average phonological integration index for English origin loan tokens for each speaker. Index values will be determined in the same manner as for mean type integration.

The measure of phonological integration will be confined to the treatment of disallowed consonant clusters and the realization of [l] and [θ] in English origin loans. The

conditions for recording the interviews make it impossible to obtain tapes with adequate sound quality to measure the integration of vowel sounds. Likewise, the realization of tone on borrowed words will not be discussed systematically.

4.4 The Shona phonological system. A brief description of the phonology of Shona will enable the reader to interpret Shona text examples, and to see how English sounds relate to Shona ones.

Shona vowels consist of a relatively simple five-member system with typical phonetic values indicated by the symbols /i/, /e, /u/, /o/ and /a/. These vowels are written in Standard Shona as i, e, u, o, and a (Mkanganwi, 231).

In contrast to the vowel system, the consonant system in Shona is very rich. Table 1 reveals that besides voiceless bilabial, alveolar and velar stops, there are two varieties of voiced stops: implosives, and explosive depressors. The term "depressor" signifies a murmured or "breathy voiced" quality (Ngara, 32) to these voiced explosives. In Standard Shona spelling, implosives are indicated by single letters, 'b' and 'd', and 'g' while the explosives are spelled 'bh' and 'dh'. Letter 'g' serves to indicate both sounds.

In Zimbabwe Standard English, words with voiced stops are realized with the explosive consonants. English loans in Shona also feature these sounds so that the word 'bucket' is pronounced /bakati/ and spelled bhakati.

Shona features a voiced labio-dental depressor fricative

Table 1. Shona consonant phonemes and their spellings in Standard Shona

	Bilabial	Labio-dental	Alveolar	Labio-alveolar	Palato-alveolar	Palatal	Velar	Labio-velar	Glottal
Plosives Voiceless Voiced	/p/ p /b/ bh		/t/ t /d/ dh				/k/ k /g/ g		
Depressor*	/ɓ/ b		/ɗ/ d				/ɠ/		
Implosive									
Fricatives Voiceless Voiced		/f/ f /v/ vh	/s/ s /z/ z	/s̬/ sv /z̬/ zv	/š/ sh /ž/ zh				/ɦ/ h
Affricates Voiceless Voiced					/č/ ch /ǰ/ j				
Nasals Regular	/m/ m		/n/ n		/ɲ/ ny		/n/ ŋ'		
Depressor	/m̬/ mh		/n̬/ nh		/ɲ̬/				
Trill Regular			/r/ r						
Depressor			/r̬/						
Glides		/ʋ/ v				/j/ y		/w/ w	

*"Depressor" indicates murmured or "breathy voiced" (Ngara, 1982,32).

Source: Compilation of material from Ngara (1982, 33) and Mkanganwi (1975, 226).

/v/ spelled vh- and a labial continuant /ʋ/ spelled v. Standard Zimbabwe English and English loans in Shona with /v/ are realized with the fricative version. Thus, English loan verb stem 'vote' is pronounced /vota/ and spelled -vhota.

The letter 'r' is used to spell both ordinary and depressor versions of the Shona voiced trill. Mkanganwi distinguishes the two phonemically by using an underlined 'r', /r/ to indicate the depressor variety. Zimbabwe English and in English loans in Shona are realized as depressor trills in Shona, so that the English loan 'road' is pronounced /rodi/ and spelled rodhi.

There are also two varieties of nasals, ordinary voiced and depressor voiced. In the case of nasals, Zimbabwe Standard English features the ordinary nasals, as do English loans in Shona. Thus, English 'motorcar' is pronounced /motika/ and spelled motika.

The hypotheses in this paper concern effects of English on Shona. However, it is important to note from the discussion above that Shona has also had an effect on the English spoken in Zimbabwe. Several British English consonant sounds have been assimilated to related Shona consonants in the Standard English spoken by native Shona speakers . This is true for English /b/, /d/, /g/, /v/ and /r/ which are all realized as depressor or breathy voiced consonants in Zimbabwe English.

The crucial points of comparison for this study, however, are the points of contact where Shona has no

phoneme close enough to the English version for such conversion to take place. From Table 2, we can see that there are no equivalents for English lateral /l/ and interdental fricatives /θ/ and /ð/.

Table 2. British English, Zimbabwe English and Shona consonant realizations.

BRITISH ENGLISH	ZIMBABWE ENGLISH	SHONA EQUIVALENT	
		Phoneme	Spelling
/p/	/p/	/p/	p
/b/	/b/	/b/	bh
/t/	/t/	/t/	t
/d/	/d/	/d/	dh
/k/	/k/	/k/	k
/g/	/g/	/g/	gh
/f/	/f/	/f/	f
/v/	/v/	/v/	v
/s/	/s/	/s/	s
/z/	/z/	/z/	z
/š/	/š/	/š/	sh
/ž/	/ž/	/ž/	zh
/h/	/ɦ/	/ɦ/	h
/č/	/č/	/č/	ch
/ǰ/	/ǰ/	/ǰ/	j
/m/	/m/	/m/	m
/n/	/n/	/n/	n
/ŋ/	/ŋ/	/ŋ/	n'
/r/	/r̲/	/r̲/	r
/y/	/y/	/y/	y
/w/	/w/	/w/	w
/l/	/l/ assimilated to /r/		r
/θ/	/θ/ assimilated to /t/		t
/ð/	/ð/ assimilated to /d/		d

Borrowed English words with /l/ appear in the Standard Shona Dictionary spelled with 'r' and pronounced /r/ so that we have English 'lorry' (truck) as rori. I was unable to find any loans in this dictionary which had source words with English interdental fricatives, although Ngara's reference to the use of English numbers leads us to expect to find equivalents of 'three' and 'thirty' in Shona language in use.

Consonant clusters and phonological processes in Shona. Hypothesis 2a concerns an increase in the number and variety of consonant clusters allowed in the Shona phonotactic system. Shona has some allowable consonant clusters. These include /pf/, /bv/, /ts/, /dz/, /tʂ/, and /dʐ/. There is also a system of prenazalization resulting in nasal combinations of /mb/, /mv/, /nd/, /nz/, /nʐ/ and /ŋg/.

Shona has a complex system of velarization, indicated phonemically and in spelling with 'w' which has the effect of creating consonant clusters (e.g., /pw/). This velarization can follow already existing clusters to add to the complexity (e.g., /tsw/).

However, there are major differences between these clusters and the ones which exist in English loans coming in to Shona. All of the clusters in the first set above (i.e., /pf/, etc.) have initial stops followed by fricatives. There are no clusters with initial fricatives (e.g., /st, sp, sk/), no clusters with /r/ (e.g., /br, pr, dr, tr, gr, kr/), and certainly none combining these features (e.g., /str, spr, skr/). Since [l] is not a phoneme, there is no possibility

of /bl, pl, gl, kl, sl/ or /spl/.

All of the Shona clusters in the first group feature similar voicing; they are either voiceless-voiceless or voiced-voiced pairs. Potential clusters from English feature a number of voiceless-voiced possibilities (e.g., /tr, kl/). Likewise, nasal clusters in Shona are all voiced pairs; there is no possibility of /mp/, /nt/, or /nk/.

Finally, all Shona syllables are open, ending in a vowel, while English permits closed syllables with consonants or consonant clusters in final position.

CHAPTER 5. CONDUCTING THE STUDY

Background for the study. This research was arranged and supervised by Professor Carol Myers-Scotton, University of South Carolina. Professor Scotton came to Zimbabwe in July-August 1988 under a Social Science Research Council grant to study core borrowing in Shona. She made initial contacts with the Ministry of Education and with the University of Zimbabwe. She also supervised the questionnaire design, pretesting and the initial phases of the research.

Designing the study. The first task of the research was to gather a corpus of natural conversation from several different groups of speakers so that a large sample of potential borrowings would be available for analysis. Students of languages in contact from Weinreich (1964, 44) onward have placed a premium on naturally occurring rather than elicited or intuited speech as the basis for analysis. Sankoff and Sankoff (1973,12) have noted that language contact data is particularly prone to subjective evaluation based on conscious and unconscious prescriptive norms the speaker holds about language.

Studies in which subjects are asked to pronounce words in isolation (Holden, 1976) or asked what words they use for pictured referents (Poplack and Sankoff, 1984) may result in production of what speakers think they should say rather than what they ordinarily do say. Studies based on written sources face similar problems. Lovins notes (1975,49): "The

difficulty peculiar to written materials on Japanese loanwords is that some compilers follow transcriptional practices based more on normativism of one sort or another than on what the average Japanese speaker actually says."

Using natural occurring conversation as the source of data, we can see what types of English origin words speakers use when talking about their daily lives. Since the focus of the conversation is on the content, rather than on the pronunciation of particular lexical items, we can assume that speakers are pronouncing the words in context in their usual conversational style.

The interview. The most commonly used format in language contact data collection has been the tape recorded interview (Berk-Seligson, 1986; Mougeon and Beniak, 1987; Kamwangamalu, 1987; Nartey, 1982; Poplack, Sankoff and Miller 1987; Hill and Hill, 1986; Bentahila and Davis, 1983). Despite its widespread use, there has been some criticism of the interview as a legitimate means to elicit natural speech (Rickford, 1987, 150). Labov has argued that the inherently formal nature of an interview may result in relatively formal speech (1966,99; 1972, 213). For Labov, the most valued speech style is the one in which the least attention is paid to speech; therefore, the less casual speech of an interview is not as highly valued.

On the other hand, more recent researchers have argued that there is no truly context independent natural style. Even in "casual" speech, interlocutors must concentrate on

producing language appropriate for speaking to their peers. As Wolfson writes, "There is no such absolute entity as natural/casual speech. If speech is appropriate to the situation and the goal, then it is natural...." (1982, 70).

Regardless of Labov's reservations about interviews as a source of data, he himself has used them extensively (1966, 1972). As Linde and Labov (1975,926) point out, natural speech occurs in contexts where speakers are discussing everyday topics, using accustomed routines with familiar interlocutors. The challenge then is to create an interview which provides such contexts.

Selecting the interviewers. Choosing "familiar" interlocutors as interviewers was the first step. If the interviewers were students or faculty from University of Zimbabwe, we would expect interviewees to shift their speech to their most educated variety, as outlined in Giles' accommodation theory (Giles, Bourhis and Taylor, 1977). This could result in a higher percentage of English features in the speech of interviewees than would be present in their usual speech to their peers. The same effect would result if I were present for the interview. To minimize this problem, the interviewers chosen were Shona speaking residents of the neighborhoods being surveyed. The four interviewers, two in each study area, were men whose age, education, social class and employment were similar to that of the people being surveyed. All were experienced in interviewing techniques, having taken part in previous research projects.

Writing the questionnaire. The questionnaires were designed to elicit conversation on everyday topics so that interviewees could speak at length about things of importance and interest to them. Topics were chosen which have been found to be successful in previous studies: questions about people's everyday lives, their problems, accidents they might have seen or experienced.

Since everyday activities differ substantially in rural and urban areas, the questionnaires in each study area reflected the differences. The interviewers worked with me to structure appropriate questions for each area so that the goal of providing an "accustomed routine" could be met. It was found in pretesting that asking demographic questions (e.g., age, education level) at the beginning of the interview seemed to constrain people from talking at length. When these questions were placed at the end of the interview, freer conversation was the result.

In the actual conversations, the experienced interviewers used these questionnaires as a guideline only, changing the order of the questions, and following up on answers with their own questions as the conversation ensued.

A few questions were included at the end of the questionnaires to elicit specific lexical items. As noted, Chimhundu has cited Krisimasi 'Christmas' as a loan occurring with variable pronunciation. It was decided to attempt to get as many speakers as possible to give their version by asking: Inguva ipi mugore yamunowanzotengera mhuri

yenyu mbatya itsva? (When do you usually buy your family new clothes?). To get people to give their version of bhasikiti 'basket', people were asked: Ko kana muri kumusha munotakurira chingwa chenyu pai? (When you are at home, where do you carry your bread?)

In order to ascertain the level of bilingualism of interviewees, urban speakers were asked a few questions in English at the very end of the interview about the languages they regularly used and with whom they used them. These questions had to be significantly modified in the rural questionnaire because so many speakers did not understand even the simplest English medium question.

Selecting the sample population. Since the hypotheses mention groups of speakers with different sociocultural characteristics, it was important to include equal numbers of speakers from the different groups.

Half of the 132 interviews in the sample were conducted on farms and in villages in the rural area near Mutoko, a town 120 kilometers from Harare. Farm sites were from 1 to 15 kilometers off the highway and were reached by foot or bicycle. The farm families grow rice for subsistence and sell any excess for cash. Most of the women have gardens for supplementary income, but are also active in general farm tasks.

Mutoko was chosen as a study area because it was the site of ongoing research by the Department of Agriculture at University of Zimbabwe. Interviewers had been meeting with

farmers on a weekly basis collecting information on their agricultural practices. These interviewers were members of the local community who, by the time of this study, knew their farm families well. Both interviewers and interviewees were quite used to the "questionnaire" format.

The remaining interviews were conducted twenty kilometers south of Harare in Chitungwiza, a community with a population of 500,000, making it the third largest settlement area in the country. Most maps do not reflect the size of Chitungwiza because it is a so-called High Density area, meaning that the houses and lots are very small and close together. Most residents work in Harare in jobs as clerks, factory workers, taxi drivers and technicians. Both urban interviewers were Chitungwiza residents; one worked as a messenger in a Harare insurance office and the second was a truck driver. Both these men had done survey work for a Michigan State anthropologist collecting data on Zimbabwe markets. They were skillful and enthusiastic interviewers.

Within each study area, interviewers used quota sampling to ensure the inclusion of equal numbers of males and females with the appropriate ages and education levels. Because demographic questions were asked last, interviewers actually ended up with unequal numbers in certain groups. Interviewers occasionally found they had interviewed a person with characteristics of a cell which was already filled. These "extra" interviews were included in the sample. Other cells were very difficult to fill. It was very hard for

interviewers to find older females with over a grade seven education, particularly in the rural area. This group is undersubscribed in the sample.

Table 3. Number of interviewees in different sociocultural groups.

Residence	Gender	Age	Education	Number interviewed
Urban	Male	Younger	More educated	11
Rural	Male	Younger	More educated	10
Urban	Female	Younger	More educated	7
Rural	Female	Younger	More educated	5
Urban	Male	Older	More educated	9
Rural	Male	Older	More educated	6
Urban	Female	Older	More educated	6
Rural	Female	Older	More educated	9
Urban	Male	Younger	Less educated	8
Rural	Male	Younger	Less educated	6
Urban	Female	Younger	Less educated	7
Rural	Female	Younger	Less educated	9
Urban	Male	Older	Less educated	12
Rural	Male	Older	Less educated	11
Urban	Female	Older	Less educated	6
Rural	Female	Older	Less educated	10
	TOTAL			132

Only native speakers of Shona were included in the survey. Potential interviewees were asked their home dialect at the beginning of the interview. Speakers of Zezuru dialect were interviewed in Chitungwiza, while speakers of Buja dialect (Dembetembe, 1970) were surveyed in Mutoko. According to local linguists, dialect differences should be irrelevant to the purposes of this research.

Data collection and transcription. Speakers were interviewed from July-September 1988 in the urban area and from August-October 1988 in the rural area. As noted, the

interviewers were personally known in their neighborhoods. They approached local residents saying that the University of Zimbabwe was conducting research to find out about present day life. The interviewers requested permission to ask a few questions in a ten-minute interview and to tape the conversation. Confidentiality was assured and the subjects were free to discontinue the interview if they chose.

After the interview, a consent form was offered and it was explained that the Shona spoken by the interviewees was the point of interest. It has been shown that much more natural speech is elicited if a detailed explanation of purpose is given at the close of the interview rather than at the beginning (Bentahila and Davies 1983, Gumperz and Hernandez, 1971, Kamwangamalu, 1987, 176).

Data processing and analysis. The interviews were transcribed and translated by the interviewers. The written transcriptions were then typed by the researcher. Interviews averaged ten minutes each, for a resulting 22 hours of taped conversations and 600 pages of transcripts.

Words of English origin were entered in broad phonetic transcription when their pronunciation differed from the dictionary entry (e.g., [krismas] for Krisimasi), or when they were unattested. A linguist who is a native speaker of Shona listened to the tapes at the University of Zimbabwe and checked the transcriptions for accuracy.

For each questionnaire, words of English origin were noted with their pronunciation and frequencies. These words

were entered into the Kwic-Magic software system (Whistler, 1988). A concordance was generated which included frequencies and sources of all words of English origin. The words in this concordance were then subjected to the borrowing criteria established in Chapter 4. Words listed in the Standard Shona Dictionary were counted as borrowed, as were words occurring in a minimum of three interviews.

The concordance was then divided into two parts. The first, included in Appendix B, is a list of words meeting the borrowing criteria above. The appendix includes attestation information, the number of interviews in which a word appears, the number of tokens, and observed phonological realizations and their frequencies.

A second list of words includes those which failed to meet loan criteria. These words appeared in less than three interviews and were not to be found in the Standard Shona Dictionary (Hannan 1974).

The researcher then returned to the individual interview transcripts. For each transcript, those words appearing in Appendix B, the list of borrowed words for this data set, were compiled for further study while the low frequency words were put in a separate category. For each speaker, words in both loan and non-loan categories were coded for degree of phonological integration into standard Shona, as outlined in Chapter 4.

Numerical data were then entered into SPSS/PC+ V2.1 for statistical analysis. Indices of integration were calculated

for each speaker using procedures outlined in Chapter 4. One index was calculated for loans and a separate index was computed for the low frequency non-loans.

Finally, calculations were made to determine correlations of integration indices with sociocultural characteristics of groups of speakers in the sample population by means of ANOVA analysis.

CHAPTER 6. RESULTS

6.1 A sample from the corpus.

A typical exchange from one of the interviews will illustrate the nature of the data collected.

Interviewer:
Matambudziko api amunowana pakuenda kubasa?
What kind of problems do you have in getting to work?

Ma- tambudziko api a-mu- no-wana pa- ku- enda ku-basa?
pl. problem which you pres find in infin. go to work

Interviewee:
Ma[bazi] ndo [problem] yedu iyi pakuenda kubasa.
Buses are our problem in getting to work.

Ma - [bazi] ndo [problem] yedu iyi pa- ku- enda ku-basa.
plural bus cop. problem poss. dem. in infin. go to work

Source: interview 68, urban male, 31, grade 7 education, clerk

The interviewee's response contains two words of English origin. The first, [bazi] 'bus', is a good example of a traditional loan: it is filling a gap for an imported concept, it is fully assimilated to the Shona phonological system, and it is attested as a class 5/6 noun (bhazi) in Hannan, 1974.

On the other hand, the second word of English origin, [problem], shows some of the features mentioned in the study hypotheses. While the word [problem] is not an attested loan, it appears in 10 interviews with a total of 14 tokens in the corpus. The appearance of [problem] in 10 transcripts qualifies it as a loan under the criterion established in

Chapter 4, and further, it meets Poplack and Sankoff's criterion for a "high frequency loan".

If this word were phonologically integrated the Standard Shona would be puroburemu. The speaker's pronunciation, however, does not come close to that of the model integrated form. Thus, [problem] fits hypothesis 1 in not being fully assimilated to the Shona phonological system.

This exchange also provides evidence supporting hypothesis 2. It contains clusters [pr] and [bl] which do not occur in Standard Shona, with [l] as an added phoneme. There is no final vowel added.

The interviewee's use of [problem] in the answer to a question containing Shona synonym dambudziko is a good example of an English loan which is definitely not filling a gap in the language, but is nonetheless occurring in variation with its Shona counterpart.

If we look at a single exchange from a single questionnaire, however, our evidence is too limited for us to make any conclusions about the general validity of our hypotheses over a more representative sample. We cannot tell if there are more loans which behave like [bazi] or more like [problem]. We can't tell if the speaker in this interview is truly typical or an exception to the average speaker. The following sections will discuss the quantitative analysis to answer these questions.

6.2 Hypothesis 1: Variability in the integration of English origin loans.

Appendix B contains a list of the words from this corpus which were found to meet the criteria established in Chapter 4: they appear in a minimum of three interviews and/or they are found in the Standard Shona Dictionary. Each entry includes attestation information, the number of interviews in which the word appears, the number of tokens of each, and observed phonological realizations and their frequencies. Appendix B includes 391 loan types with a total of 6,294 tokens.

An examination of Appendix B provides immediate support for the validity of hypothesis 1: Not all English loans in spoken Shona are being fully assimilated to the Shona phonological system. Just 35% of loan types requiring phonological integration were fully integrated by all speakers. Fully integrated loans are exemplified by [kotoni], with a final assimilatory vowel added by all three speakers who used it.

On the other hand, only 20% of loan types were totally unintegrated by all speakers; one example of this type is [indastri], with the [str] cluster unassimilated by the six speakers who used it.

Notably, a large number of loan types were either partially integrated (8%) or integrated differently by different speakers in the sample (37%). An example is the latter is agasati 'August', pronounced [agasti] by one

speaker and [agast] by six others.

Table 4. Variability in assimilation of English origin loan types and tokens, n=347 types*, 132 interviews.

	All tokens were fully assim.	All tokens were partial. assim.	All tokens were unassim.	Vari-able assim.
# of types	120	28	71	128
% of types	35%	8%	20%	37%

*45 loans (11% of total types) did not require integration, being pronounced the same in Shona and Zimbabwean English; these loans are excluded from Table 4.

The source of the variability revealed in Table 4 may be the fact that in situations of long term language contact like that in Zimbabwe, loans are "subject to continual interference from the model in the other language" (Haugen, 1953, 394). The result over time is that a word can be "reborrowed" in a different form by later groups of speakers in the speech community. In the early period of contact, the prebilingual period, loans come into the language through a relatively small group of bilinguals and are spread by a large monolingual majority which fully integrates the loans into the local language. In later periods of language contact, when there are a number of adult bilinguals, words which had formerly been borrowed in a fully assimilated form may be reborrowed without integration. During this later period, new loans coming in to the language will be expected

to be less assimilated than older loans made in the prebilingual period. Zimbabwe represents just such a long term language contact situation (one hundred years) with the added pressure of English as the language of power--government, business and education--during the colonial period. We are not surprised then to find within the corpus some fully integrated loans which entered the language in the early stage of contact, some variably integrated loans which include reborrowings, and some very recent loans which have not been integrated at all.

This corpus provides examples of reborrowings in the form of doublets like [čikoro] 'school' and [skulfiz] 'school fees'. The earlier borrowing, [čikoro], is completely integrated with [s] realized as Class 7 prefix chi- resulting in an epenthetic vowel dividing the initial cluster. Further, English [l] has been assimilated to Shona [r], and final vowel has been added with a resulting CVCVCV phonotactic shape. In the later borrowing, the compound [skulfiz], the [sk-] cluster is retained, [l] has not been assimilated to [r], and no vowel separates the [lf] cluster.

Some loans have more than just two realizations; in fact different speakers contribute a group of realizations which could be placed along a continuum of integration. For the English loan 'store', we find the following: [čitoro], [sitoro], [storo], [stoo], and even ma-[stooz], which includes both Shona plural ma- (class six) and English plural -s.

The realizations of "Christmas" in Shona are just as varied as was hypothesized by Chimhundu. We find one or two occurrences each for [kisimasi], [kismasi], [kismisi], [kisimas], [kisimus], [kisimis], [kismas], [krismasi] and [krisimas]. However, eighty-six speakers produced unassimilated [krismas].

The general process of reborrowing with resultant variable realization has occurred in a number of long-term language contact speech communities. Rothwell (1980,121), for example, describes doublets in French, borrowed from Latin in different historical periods. Latin mobilis has provided French meuble, a relatively more integrated early borrowing, and mobile, a relatively less integrated later borrowing. Similar pairs are reported for French and English loans in Mohawk (Bonvillain, 1978,32), German borrowings in Estonian (Lehiste, 1988,7), and French loans in Moroccan Arabic (Heath, 1978,24).

6.3 Hypothesis 2: An expanded phonological system for Shona.

If large numbers of loan words are not being integrated into the Shona phonology, then we might expect a change in the system in which, ultimately, the unintegrated components become not rare exceptions but legitimate parts of the system. Hypothesis 2 proposed that the data would reveal an alteration of the Shona phonological system, with a relaxation of phonotatic constraints on consonant clusters

and closed syllables, and the addition of phonemes [l] and [θ].

Just as we found a great deal of variability in overall degree of integration of borrowed words in Shona, we also find variability in the presence or absence of these proposed additions to the phonological system. The overall picture is one of complete integration for old attested loans, and non-integration for newer loans which are less likely to be attested. In a third category are variably realized types which appear in integrated forms in the speech of some speakers while they are unassimilated in the speech of others. These types are less likely to be attested than completely integrated loans, but more likely to be attested than those which show no integration.

Initial and medial consonant clusters. This pattern is clear in Table 5, which reveals the presence and absence of anaptyctic vowels in initial and medial consonant clusters. The first column, a relatively low 13% of all types, represents words like bhoracho 'brush', for which all tokens were realized with initial [bor-]. The center column represents types with varying realization like bhizimisi 'business', pronounced with an added medial vowel [zim] in two tokens and without [zm] in a third token. In the third column are the majority of types, which have no added vowel in initial or medial clusters; an example is girosari 'grocery', realized for all tokens as [grosari].

Table 5. Variable addition of anaptyctic vowels in initial and medial consonant clusters in English origin loans in Shona

	Vowel added in all tokens (94% attested)	Vowel added in some tokens (67% attested)	Vowel added in no tokens (36% attested)
Types= 131	17 13%	38 29%	76 58%

	+V	+V / \-V	-V
Tokens= 845	51 6%	72 9%	163 19%	559 66%
	Total tokens, +V 123 15%		Total tokens, -V 722 85%	

Not only are the majority of types (57%) realized without the addition of vowels to break up clusters; the percentage of tokens without added vowels is even higher at 85%. It would appear that newer loans are coming into the language without the integration of initial and medial final clusters, and that some old loans are being "reborrowed" by speakers in the process described by Haugen (1953) This argument is further supported by the attestation pattern of the types. Sixteen of the seventeen fully integrated types (94%) in Table 5 are attested in Hannan 1974, compared with 67% attestation for varying types and 36% for types with no vowel added.

There is no significant difference between anaptyctic vowel addition in initial and medial consonant clusters.

There is also no difference in the realizations of words from different form classes when it comes to initial and medial consonant clusters. However, when we look at the addition of word-final vowels, we find an interaction between phonological and morphological systems.

Final vowel addition. Besides the addition of anaptyctic vowels to break up disallowed initial and medial clusters, the Shona phonotactic system requires the addition of final vowels to prevent closed syllables at the end of words. There is also morphological motivation for the addition of final vowels to Shona verbs. A verb stem consists of the verbal root + terminative. Simple terminatives in Shona are -a, -e, and -i, while more complex terminatives, called extensions, end in these same vowels (Fortune,1955,262). Thus, in ti-no-end-a 'we go', -a is added to the verb root end- signifying "positive indicative." In ha-ti-end-e 'we don't go', final -e denotes "negative indicative." As a result of the semantic load of the verb-final vowel, a full 100% of the borrowed verbs in this corpus appear with a final vowel added. Verbs are in definite contrast with the other borrowed loan items which appear with final vowels in a variable pattern quite similar to that for addition of vowels in initial and medial clusters.

Verbs are not omitted in the study of final vowel addition, but counted as fully integrated in that regard, despite the fact that one cannot differentiate between

phonotactically and morphologically motivated final vowel addition.

Table 6. Variable insertion of anaptyctic final vowels in English origin loans in Shona

	Vowel added to all tokens		Vowel added to some tokens	Vowel added to no tokens
Attestation:	(verbs,70%)	(others,82%)	(67%)	(36%)
Types = 292	48 100%	78 32%	84 34%	82 34%
	/ +Vowel	/ +Vowel	/ +Vowel	\ -Vowel

Tokens = 3,977	Verbs 311 100%	732 20%	565 15%	1,591 43%	778 21%
		Other Total tokens, +V 1,297 35%		Other Total tokens, -V 2,369 65%	

For words other than verbs, the figures in Table 6 resemble those in Table 5 in terms of variability in attestation rates and vowel addition. Types with vowel added to all tokens are more likely to be attested than types with vowel added to no tokens. More tokens appear <u>without</u> an added final vowel than <u>with</u> an added vowel. However, the percent of all tokens which do have a final vowel added (35%) is substantially higher than the percent of tokens with initial/medial cluster vowels added (15%).

It is possible that the presence of some consonant clusters in Shona, even though they are phonetically quite

different from English clusters, facilitates the addition of more clusters. Acceptance of closed syllables, on the other hand, has no precedence in Shona.

The previous discussion concerned variability in the addition of vowels necessary to preserve phonotactic constraints. Such variability has an impact on the phonotactic system, but does not affect the components in the phonological inventory. A more substantial change in a phonological system is the addition of a completely new phoneme to that system. In fact, as indicated in Chapter 2, many linguists have argued that new phonemes are rarely added to a system.

Is [l] entering the Shona phonological system?. How substantial is the use of unassimilated [l] in English origin loans like [ranci] 'lunch'? Evidence supporting the addition of [l] to the Shona phonological system is interesting but not as definitive as evidence for the breakdown of phonotactic constraints. While virtually every speaker used loan types which lacked expected vowel additions, only 74% of the interviewees used loan types with [l]. Of course, more speakers could have words with [l] in their lexicon which did not surface in the brief ten-minute interview.

As shown in Table 7, the majority (61%) of loan tokens with [l] in the English source word are realized with assimilation to [r]. However, the unassimilated 39% represent 327 tokens in the sample, a rather substantial

number. Also interesting is the fact that eight of nineteen types which are unassimilated in all tokens are found in the dictionary in their integrated spelling. It is possible to project that in this later period of language contact, with substantial bilingualism in the urban areas, newer loans featuring [l] are likely to come in unassimilated.

Table 7. Variable realization of [l] in English origin loans in Shona

	[r] substituted all tokens (82% attested)	[r] substituted some tokens (67% attested)	[r] substituted no tokens (42% attested)
Types= 88	39 44%	30 34%	19 22%

	[r]	[r] / \ [l]	[l]
Tokens= 845	390 47%	118 14%	237 28%	90 11%
	Total tokens, [r] 501 61%		Total tokens, [l] 327 39%

It is important to point out that the presence of potentially unassimilated [l] in loans is not just confined to English origin borrowings. Ndebele, the third official language in Zimbabwe, is also a source of borrowings, and we find [l] in many Ndebele words, including the name of the language. Chilapalapa, or Fanikalo, is also a source of words with [l]. This language is a pidgin based on English and Nguni which originated in South African mines where it

was used as a lingua franca. In Zimbabwe, it has traditionally been used by white farmers to speak to their workers. It is regarded by speakers of Shona as a demeaning language (Ngara,1982,13) but nonetheless another source of interference for bringing in words with [l].

Is *θ* being added to the phonological system? When we discuss the addition of [l] to the Shona phonological system we are talking about a phoneme which has a relatively high potential in terms of number of types and word classes in which it might occur. Twenty-two percent of the loan types contain [l] in the English origin word, and these types occur in all form classes observed. The phoneme [*θ*], however, has a very low potential occurrence. It appears only in English origin numbers in the sample: 'three', 'thirteen', and 'thirty' through 'thirty-nine'.

Despite the limited number and nature of types in which it occurs, [*θ*] appears in the interviews of 72% of the speakers, a very similar figure to that for [l]. Numbers with [*θ*] account for 171 tokens in such combinations as "three o'clock", "form three", "thirty dollars", and "thirty-five years old". As will be discussed below, English numbers are ubiquitous in so many semantic fields in present day Shona that speakers cannot avoid them in discussions of daily activities. What is surprising is the almost total lack of integration of what is generally considered to be a rare and difficult sound. Only four speakers, all of them older uneducated females from the rural area, assimilated this

sound from [θ] to [t].

How could such a marked phoneme have come into the language? As shown in Table 1, Shona is a language rich in fricatives. It also has a [ts] cluster with an articulation pattern very close to that of the voiceless interdental fricative. It may be that Shona speakers have such a comprehensive system of articulatory patterns at their disposal that the interdental fricative can be added to their system with little difficulty.

The interdental fricative has also been borrowed into Swahili, a Bantu language related to Shona. Both voiced and voiceless dental fricatives have come into Swahili from Arabic (Polome, 1980, 191). There may be a general propensity for Bantu languages to take in these sounds which is not found in other language families.

6.4 Hypothesis 3: Phonological integration patterns of groups of speakers in the speech community.

Variability in the speech of individuals. Table 3 indicates that the integration of English origin loan types is complex and variable. If we look at the integration patterns of individual speakers, we find just as complex a picture. Nearly all speakers show fully integrated, partially integrated and unintegrated loans in their transcripts, and several speakers pronounce a single loan type in several different ways within a single interview. The "integration index" described in Chapter 4 was devised as a way to summarize the assimilation behavior of individual speakers in a single statistic.

The average integration index (1=fully integrated, .5=partially integrated, 0=not integrated) computed for all speakers for all types is .37. This number indicates that on the average, speakers are not coming close to fully assimilating the majority of English loans occurring in natural speech. The index of integration for tokens is higher at .41. The words which were fully integrated (e.g., bhazi, motokari) had a larger number of tokens in the corpus than did the less integrated words. Thus, high frequency use of a word may indicate that the word has been in the language for a long time. As argued above, we expect a greater degree of assimilation for the oldest loans in the sample.

By computing integration indices for individual speakers within the sample, we can then look at the sociocultural

characteristics which correlate with different degrees of assimilation. Reviewing hypothesis 3, we expected greater phonological integration from rural speakers than urban speakers; older speakers than younger speakers; less educated speakers than more educated speakers; and women than men. Table 8 shows the actual integration indices for these groups of speakers.

Table 8. Degree of integration of borrowed words of English origin into Shona by sociocultural characteristics of speakers.

	Integration index (1=fully integrated, 0=not integrated) Types		Tokens	
Mean:all speakers	.37		.41	
Residence:				
rural	.46		.50	
urban	.28	**	.33	**
Education:				
0-7 years	.41		.45	
over 7 years	.33	**	.37	**
Gender:				
female	.40		.46	
male	.35	*	.38	*
Age:				
Over 35 years	.38		.42	
25-35 years	.36		.41	

All of the differences between indices for sociocultural groups are in the direction of the predictions in hypothesis 3. For example, rural speakers integrated loans to a greater extent (.46 for types and .50 for tokens) than did urban speakers (.28 for types and .33 for tokens). However, we need to find these differences were significant, and capture the potential interaction among all four variables

in accounting for the variation among integration indices. To this end, an analysis of variance was done, with the results shown in Table 9.

Table 9. Analysis of variance, integration of loan types and sociocultural characteristics

Source of variation	d.f.	MS	F
Residence	1	.963	90.792**
Education	1	.112	10.563**
Gender	1	.049	4.578*
Age	1	.017	1.596
**p<.01 *p<.05			

Table 8 reveals differences between integration indices of urban and rural speakers are indeed significant. Lesser assimilation of foreign source loans among urban speakers is not a not unique phenomenon. Appel and Muysken (1987,36) have described the general pattern of preservation of a non-prestige language by rural groups in a society. Urban-rural differences have been especially relevant in African settings. Kashoki (1978) has argued that urbanization and its accompanying migration is a major factor in the discernible lexical adaptation of the indigenous languages of Zambia. Kashoki particularly points up the constant rural/urban migration which was mentioned as a fact of life in Zimbabwe in Chapter 3. Siachitema (1987) mentions urbanization as a crucial determiner of language patterns in Lusaka, Zambia while Whiteley (1963) discusses mobility as a

factor in language choice for Kamba speakers moving between Kenya and Rhodesia (now Zimbabwe).

The key factor in the urban setting which is absent in rural areas is the necessity to use two languages in order to fulfill the functions of daily living. City people in Harare cannot escape the need to use English, regardless of their education, gender, and age. They need it as a lingua franca between other ethnic groups, as a work language, in school, at the courts, to read the newspaper, to watch television. The heavy contact between the languages during the speakers' daily lives appears to be inhibit the assimilation of English borrowings as they enter in to the language.

Education level is also significantly correlated with differences in integration indices. Since speakers with more education have had more instruction in English, it is hardly surprising that they show less assimilation of English words in their Shona. They have the skills to pronounce English words in their original form, and it may actually be easier and potentially more efficient for them to pronounce the word the same way in both languages than to have to carry two forms of the word in their mental lexicon.

Gender accounts for differences in integration indices, but not to the extent of either residence or education (.05 as opposed to .01 significance). Female speakers assimilate loans to a greater degree than do male speakers. McClure (1981) points out that in many societies, women have fewer identity relationships requiring the use of a second

language. Women who work at home in Zimbabwe in both urban and rural settings have fewer opportunities and requirements to use English daily. We can expect then that English will have less of an impact on their Shona. Barton (1980) in Tanzania and Whiteley (1973) in Kenya found that women used significantly fewer loans in their first language than did men.

Age was not found to contribute significantly to differences in integration indices. This is surprising in that age has been used in some studies to measure language change in progress. One common way that linguists measure change in language is to do cross-sectional studies of groups of speakers of different ages to discover the course of change by looking at the differential production of a variable. For example, in Labov's study of the production of post-vocalic [r] in New York City (1966), older speakers who showed the least amount of [r] were assumed to be representing an earlier phase while younger speakers with more [r] represented a later stage.

With studies like this in mind, we would expect older speakers in Zimbabwe to assimilate loans to a greater degree than younger ones. The lack of correlation may be due to a characteristic of the research design. Our two age groups were people 25-35 and people over 35. As it turned out, many interviewees in the "older" group were in their late thirties and early forties; there were few people interviewed who were over fifty. Poplack, Sankoff and Miller (1987) found

significant differences in the borrowing patterns of youngest (15-34) and oldest (over 65) groups in research in Quebec. Nartey found differences in language choices among younger speakers and those over 50 in a Ghana study. A better sampling method would have insured the inclusion of a greater number of significantly older and younger speakers.

The variability in patterns of integration depending on characteristics of the speakers help to explain why it is so difficult to come up with a definitive answer for Hypothesis 2 regarding alteration of the Shona phonological system. Phonotactic constraints are being relaxed for some speakers for some lexical items some of the time. Likewise, [l] is coming into the language of some speakers in some words some of the time. As noted above, changes in sociocultural characteristics--an increase in education, or a change in the function and status of Shona in the society--will have a great impact on the timing and direction of future alteration of the system.

6.5 Hypothesis 4: Additions to the core vocabulary.

Hypothesis 1, 2 and 3 focus on the phonological impact of English as the language of power and prestige during colonialism. But English has not only contributed to the alteration of Shona phonology. It has also played in role in the major expansion of the Shona lexicon.

As noted in Chapter 2, linguists have always been aware of the process of filling gaps in the existing lexicon with borrowed lexical items for imported concepts. The high frequency loan bhazi 'bus' from the sample passage is an excellent example of a noun borrowed when no word existed in Shona for the newly imported form of transportation.

In contrast to such cultural loans, numbers are a part of the core vocabulary of a language, lexical items which not only already exist, but form the heart of that language. However, a particularly strong case can be made for the English number system having been integrated into the Shona language. While numbers are not mentioned among loan types in the great majority of borrowing studies, English numerals make up a full 20% of the borrowed tokens (1,253 of 6,294) in this corpus.

More important than their proportion of the borrowed lexicon, however, is the high percentage of English numbers compared to Shona numbers. We find 84% of all numerical tokens to be English loans while only 16% are native Shona numbers. It appears that a large scale replacement has taken place. How could such a thing have happened?

The key to the large percentage of English numbers may lie in the concatenations of which the numerals are a part. It may be that English numbers first entered the language in combination with words which were indeed filling gaps in Shona. A prime example is time expressions connected with the clock, e.g., half past four and three o'clock. When asked to describe daily activities, only one speaker mentioned such a time expression using Shona numerals, as shown in Table 10.

One of the most striking differences between responses on rural and urban questionnaires is the relative obsession of the urban speakers with time (see Appendix C for examples). Time expressions constitute 34% of all number tokens, and urban speakers accounted for 87% of the time terms.

When rural speakers talk about their day, they mention their activities in the morning, the afternoon and the evening, with relatively few references to specific times. When they do mention a time, it is rarely modified beyond the hour (i.e., no "half past" or "quarter to"). Farmers have control over their daily activities such that they do not have to be anywhere at any specific hour. Clock time is rather irrelevant in the rural area.

Urban speakers, on the other hand, are mostly salaried employees who have to be at work at a specific time, have their tea and lunch breaks at specific times, and catch a bus home at a specific time. The concept of controlled hourly work is definitely an imported one.

Table 10. English and Shona numbers in different semantic fields, # of tokens and percent

	English	Shona	Total
Time (point, e.g. 10:30)	504 99.08%	1 0.2%	505 100%
School (e.g., fomu 4	232 99%	3 1%	235 100%
Money (e.g., $50)	62 95%	2 5%	64 100%
Age (e.g., makore 25)	120 86%	20 14%	140 100%
Time (dura-(tion,e.g., 2 awaz	135 72%	53 28%	188 100%
Other (e.g., saki 6)	142 52%	132 48%	274 100%
Children (e.g., vana 5)	40 43%	53 57%	93 100%
Total	1,253 84%	246 16%	1,499 100%

It seems likely that times were imported as frozen combined expressions such as "two o'clock" and "half past three". The numbers in this case then were part of a total imported expression and not replacing Shona numbers at all, since in traditional society, Shona speakers had no occasion to talk about time in the Western sense.

Another cultural import is Western style education, in this case the imported British school system. As shown in Table 10, 99% of the references to year in school (grade 7; form four; standard 2) were in English. It is probable that these expressions were also were originally learned by monolingual speakers as unanalyzed wholes, with no sense of replacing Shona numbers. Even for bilingual speakers aware of the synonymity of the two number sets, the English number may have seemed inseparable from the English noun with which it was associated. Using a Shona number with terms for imported alien concepts like "grade" and "standard" may have seemed totally inappropriate.

If Western style education was once an alien concept in Zimbabwe, it has not remained so. While time expressions are largely confined to the urban area, references to education are found equally in urban and rural sectors. Many rural women in the sample who had not a single year of education were proud to state that all of their children are now in school, and reported the grade and form level of each using borrowed English numbers. These rural speakers also used English numbers when they wanted to talk about money.

The cash economy is another concept which came in at the time of colonialism. We are not surprised to see English numbers along with an English word for money, e.g., [tuu dhoraz] 'two dollars'. With Independence, farmers have been given the privilege of selling excess grain, and discussions of prices and incomes are common. For urban speakers, it is taxes which predominate when money is mentioned.

The three semantic fields for which the greatest proportion of English loans are noted thus represent imported concepts which might be seen to be closely tied to the imported numbers used with them. The fourth category, age, might appear from a Western perspective, to be a more universal semantic field. However, in the traditional Zimbabwe context, a precise knowledge of one's age in years is just about as irrelevant as clock time. For much of the rural sample, the interviewers had to estimate the age of respondents within the two categories "25-35" and "over 35" because interviewees did not know their exact age. Questions about age did engender plenty of discussion, with people pinpointing the year of their birth as before Hitera 'Hitler' or "the year of the locust" or "the year of the big drought." However, the concept of age as a specific number of years since birth is definitely not universally significant throughout this speech community.

The first three semantic fields feature English numerals and English nouns (e.g., fomu tuu 'form two'; tuu okuroku 'two o'clock. In references to age, we find the first cases

of a combination of a Shona noun and an English number. When interviewees did give an age in years, there was actually a great deal of variability in presentation, ranging from all Shona [(makore) makumi maviri '(years) twenty-two'] to Shona+English [makore twendituu 'years twenty-two'] to all English [twendituu (yez) 'twenty-two (years)']. Table 11 shows the proportion of the different variants in the corpus.

Table 11. Variations in age expressions, percent of tokens for each form. Number of tokens = 70 each, rural and urban. (makore = years)

	Shona#	makore+ Shona#	makore+ English#	English# + yez	English#
Rural	3%	16%	7%	21%	53%
Urban	0%	10%	26%	24%	40%

The expression 'twenty-two years' is similar to 'two o'clock', 'form two', and 'two dollars', in being an English number frozen with an imported concept. However, makore [twendituu] consists of the Shona noun for years plus the English number. This construction would definitely require the extraction of the number from its role as part of a concatenation. Of course it is quite possible that the use of makore in this way represents a loan shift, expanding the semantic field of the word so it could be used to discuss the imported concept of age in years from birth. In that case we have a type of hybrid loan shift concatenation.

These constructions do not conform to Shona morphology, in that the numeral lacks the ma- agreement prefix of a word

modifying a Class 6 noun. Nonetheless, the English origin numerals obey Shona word order rules in following Shona noun makore. This is evidence that English numerals have moved out of frozen loan expressions and into productive use in the language.

It is not surprising that more of these "hybrid" expressions came from the urban sample (18 tokens) than the rural one (5 tokens). What is surprising is the overall low percentage of Shona numbers for the rural age category, only 19%. This figure does not differ dramatically from the urban figure of 10% Shona numbers for age.

The remaining semantic fields in Table 10 contain variably realized forms similar to those for age. Maawa matatu 'hours three' exists along with [θri awaz]. Vana vanhatu 'children six' occurs in one interview and [vana siks] 'children six' in the next. The statistics for reporting number of children are particularly telling, because this is a semantic field which was surely adequately covered by Shona numbers. Lance (1975,139) reports that Spanish speakers in his study used English numbers for addresses, but Spanish numbers for number of children in the family. In contrast, in this corpus, over half of the tokens for number of children were English origin. This is a strong indication that these numbers have not only left frozen expressions but are taking over in traditional semantic fields.

Borrowed function words represent a very small

proportion of borrowed types (11 or 3%) and tokens (119 or 2%). However, it is rather surprising that there are any function words at all in the loan corpus. There are certainly well established Shona synonyms for English "because" and "so", two of the examples from Table 12. These words are also part of core vocabulary which has been thought to be resistant to borrowing. However, similar discourse markers have been shown to have been borrowed from Swahili into Atesto (Scotton and Okeju, 1973), from Spanish into Mexicano (Hill and Hill, 1986) and from English into French (Mougeon and Beniak, 1987).

Table 12. English origin function words (minimum of three interviews)

Shona spelling	English translation	Tokens	# of interviews	Phonetic realization(s)
adhawaizi	otherwise	3	3	[aɖawaizi]
afuta	after	5	4	[afta]
bhati	but	21	16	[bati] 6 [bat] 10
bhikozi	because	23	13	[bikozi] 1 [bikoz] 13 (interview 149, both)
ende	and	10	13	[ende] 6 [end] 4
esipeshari	especially	11	10	[espeš̌ali]
inifakiti	in fact	4	4	[infakti] 1 [infakt] 4
meyibhi	maybe	3	3	[meyibi]
ofukosi	of course	4	4	[ofkos]
purazi	plus	14	13	[prazi] 2 [plazi] 5 [plas]6
sitiri	still	5	4	[stiru] 2 [stil] 2
soo	so	12	10	[soo]

Phonological integration of numbers and function words.

The integration index for borrowed numbers is relatively low, .06 for types, and .08 for tokens, compared to .37 and .41 for the sample as a whole. Function words share similar lower integration rates at .18 for types and .19 for tokens. It is interesting that loans duplicating core vocabulary should exhibit lower integration rates than those for loans filling gaps in the lexicon.

Function words and numbers share another characteristic besides low integration indices. That factor is a lack of attestation in the Standard Shona Dictionary.

Table 13. Percent of sample loan types attested in the Standard Shona Dictionary (Hannan 1974) by word class

Total	Nouns	Verbs	Numbers	Function
33%	67%	75%	0	0

As shown in Table 13, while the majority of high frequency loans in the noun and verb category are to be found in the dictionary, none of the numeral or function words is present.

The lack of attestation reveals a lack of acceptance of these core loans as "legitimate" components of Shona. Further, there is no Standard Shona written model which could serve as conserving or purifying force promoting the assimilated forms of these loans.

6.6 Other pressures on the Shona linguistic system: Impact of loans on noun class inventories.

In other studies of borrowing, nouns have been found to make up the largest proportion of the loan lexicon (Banjo, 1986; Nartey, 1982; Poplack, Sankoff and Miller, 1987; Hill and Hill, 1986). This study is no exception, with nouns representing 78% of types and 73% of tokens, as shown in Table 14.

Table 14. Form classes of English origin loans

	Nouns	Verbs	Numbers	Function
Types= 391	306	52	21	12
% of loans	78%	13%	5%	3%
Tokens= 6,294	4,598	333	1,253	119
% of loans	73%	5%	20%	2%

When nouns are borrowed into Shona, they must enter the noun class system. The class they enter will determine the compulsory prefixes of concordial agreement of associated words. As shown in Table 15 the Shona noun class system is composed of 20 classes, with primary functions roughly based on semantic content. For example, class one (singular) and two (plural) nouns are human beings (mu-kadzi 'woman', va-kadzi 'women). Class fourteen nouns, on the other hand, contain many words which in English are termed non-count nouns--e.g., substances (hu-pfu 'flour') and abstractions (hu-rwere 'sickness').

Table 15. Shona Noun Classes

	Singular			Plural	
1	*mu-*	*munhu* 'person'	2	*va-*	*vanhu* 'people'
1a	0	*tete* 'paternal aunt'	2a	*va-*	*vatete* 'paternal aunts'
3	*mu-*	*muti* 'tree'	4	*mi-*	*miti* 'trees'
5	*[ri-]*	*badza* 'hoe'	6	*ma-*	*mapadza* 'hoes'
7	*chi-*	*chinhu* 'thing'	8	*zvi-*	*zvinhu* 'things'
9	*[i-]*	*imba* 'house'	10	*(dzi)-*	*dzimba* 'houses
11	*ru-*	*rukova* 'river'	12	*tu-*	*tumuti* 'little trees'
13	*ka-*	*kamuti* 'little tree'	14	*hu-*	*hupfumi* 'wealth'
15	*ku-*	*kutenda* 'to love'			
16	*pa-*	*panze* 'outside'			
17	*ku-*	*kunze* 'outside'			
18	*mu-*	*mukati* 'in the middle'			
19	*svi-*	*svana* 'small child			
21	*zi-*	*zinyoka* 'large snake'			

When English words are borrowed into Shona, they may enter a class because of semantic content. Thus, most nouns denoting humans enter Class 1a, the variation of Class 1 which has no prefix but which takes all concordial agreements of class one (e.g., maneja 'manager' 1a). Some borrowed nouns enter a class whose prefix begins with sound similar to the loan. Chikoro 'school' and chitoro 'store' in Class 7 appear to have had this kind of origin.

As indicated in Table 16, the majority of loans from English to Shona enter Class 5/6 and Class 9/10. These are classes with a prefix in their historical proto-form ([ri-] for Class 5; [N-] for Class 6) but with no realized prefix in present day Shona. Therefore, English words can enter these classes regardless of their initial consonant sounds without further phonological and morphological integration to an existing prefix.

Table 16. Average number of nouns per interview, noun classes 1-10.*

	Total	Shona origin	English origin	Percent English
Class 1/2 Types	5.2	4.4	0.8	15%
Tokens	10.7	9.9	0.8	7%
Class 3/4 Types	3.4	3.3	0.1	3%
Tokens	5.2	5.0	0.2	4%
Class 5/6 Types	19.6	9.5	10.1	51%
Tokens	34.4	18.3	16.1	47%
Class 7/8 Types	5.2	3.9	1.3	27%
Tokens	9.3	6.8	2.5	27%
Class 9/10 Types	14.8	7.9	6.8	47%
Tokens	27.4	17.1	10.3	38%

*The number of loans in Classes 11-21 was negligible.

Classes 5 and 9 have a wide range of primary uses, with Fortune listing "miscellanea" among primary functions for both classes (Fortune, 1955, 74, 88). Words entering these classes then can come from a wide range of semantic fields. Many borrowed words are attested in the Standard Shona Dictionary for both Classes 5 and 9. Likewise, in the corpus, a number of nouns appeared with variable concordial agreements on the accompanying verb, appearing in some interviews as with Class five or six agreements and in other interviews with Class 9 or 10 agreements.

If we look at column two in Table 16, average number of Shona origin noun types and tokens, we see that Class 5/6 and Class 9/10 provide more nouns than the other classes. The addition of English loans substantially intensifies the contribution of these classes, basically doubling the average number of types from Class 5/6 and Class 9/10.

While early English borrowings are found in many classes (e.g., mubheda 'bed, Class 3/4; chikoro 'school', Class 7/8) more recent loans seem to be largely confined to the prefixless Classes 5 and 9. It remains to be seen what long term impact this ballooning of two classes will have on the overall noun class system.

Other morphological outcomes. The only English-origin bound morpheme which occurs frequently in the corpus is English plural -s, along with its allomorphic realizations. One place in the language where this -s plural occurs frequently is in borrowed numerical compounds. There are many examples of expressions such as tuu awaz 'two hours, tuu dholaz 'two dollars' and tuu yez 'two years'; in fact, such expressions were used by 59% of the respondents.

If we go back to the argument that English numerical expressions came into the language as frozen, unanalyzed units, it may explain the presence of these forms. Under this analysis, the -s plural is part of a single morphological unit, and not participating as an addition to the productive morphology of the language.

It is interesting that there is virtually no addition of

final vowels after -s to integrate these expressions phonologically. The presence of the English numeral may have given these expressions a sense of foreignness which precluded regularization.

Morphological doubling. Fortune (1955,74) specifies the first primary function of Classes 5/6 as "things usually found in pairs, numbers, or bulk." Perhaps this inherent sense of plurality has led to the appearance of plural -s on many loans with the ma- prefix of Class 6. Examples from the corpus include: [ma-šops] 'shops', [ma-baskits] 'baskets', and [ma-pats] 'parts'. Koopman has found similar double plurals in Zulu in a study of Class 6 (ama-) nouns from written sources (personal communication).

These double plurals occurred on just 17% of Class 6 English loans in the Shona data. However, as Table 17 indicates, double plurals appear much more frequently on the low frequency words of English origin. Words occurring just once, and carrying the ma- prefix and concomitant Class six concordial agreements, included the -s plural 69% of the time.

Table 17. Single and double plurals on English origin loans and code switches

	Loans	Code switches
Total # of Class 6 tokens	780	124
# of Class 6 tokens with -s	136	86
Percent of Cl.6 tokens with double plurals	17%	69%

For both high frequency and low frequency words of English origin in the sample, there are Class six items occurring without -s plural, but no Class six nouns appearing without ma-. Thus, in the case of Class 6 nouns, plural -s seems to provide redundancy in the morphological system without having become a productive member of the it.

High frequency loans are found with -s added; one-time code switches are found with Shona Class 6 ma- prefix. These occurrences corroborate the inappropriateness of using morphological criteria to determine if a foreign source item is a loan or a code switch. The failure of this and other traditional criteria in differentiating loans and code switches in a data set will be taken up again in the discussion of code switching and borrowing in Chapter 7.

CHAPTER 7. DISCUSSION

7.1 Linguistic consequences of lexical borrowing from English.

7.11 Phonology.

The results presented in Chapter 6 support the claim that the Shona sound system is undergoing an alteration. Phonotactic constraints have relaxed so that many new words are entering the language with consonant clusters unassimilated. Some older loans are being realized variably, indicating a "reborrowing" of words in their unintegrated form by some speakers. Several recent studies have reported the taking in of clusters in this fashion, including those of Lehiste, 1988, 7; Mkude, 1986, 516-17; Chan and Kwok, 1986, 426; and de Vries, 1988.

The phonological inventory also appears to be expanding. The route of the addition of [l] resembles that of consonant clusters, with more recent loans unassimilated and variability among speakers with regard to the realization of some other types. The addition of [θ] appears to be more complete, with much less variability; however, only a few high frequency numerals are involved. Studies which show similar additions to a phonological system include Taylor, 1948; Kartunnen, 1982; Bonvillain, 1978; Hill and Hill, 1986, and Heath, 1989.

Borrowing (and reborrowing) of unassimilated words has been shown to occur in later periods of language contact when there is a high degree of bilingualism in the speech

community. Since the bilingual innovators already control the phonology of the second language (even relatively marked features such as [θ]), bilinguals are able to bring in the new expressions unassimilated to the vernacular. Mougeon (personal communication) writes:

> ...it seems to me that bilingual skills are likely to have a confounding effect on the 'natural' tendency to integrate one word CS/B [code switch /borrowing] in the matrix language. For fully bilingual speakers such integration may be looked upon as either 'unnecessary' or at odds with their bilingual identity, especially if they don't compartmentalize their two languages.

In their discussion of loan integration, Appel and Muysken (1987,173) cite the traditional view that because loan integration is slow, the degree of integration of a loan will correlate with the time of the borrowing of the loan. Therefore, the oldest loans are expected to show the greatest amount of integration, an argument maintained in the work by Poplack and Sankoff (1984) in their study of English borrowings in Puerto Rican Spanish in New York. This argument is partially supported in the present study, in that more highly integrated loans were more likely to appear in the dictionary, suggesting a longer history in the language.

On the other hand, in this study some early attested loans in partially assimilated unassimilated forms unlike those indicated in dictionary entries. Suppose a linguist noted the realization of Shona versions of English 'store' in this data, along with the number of interviews in which they appeared: [čitoro] 17, [sitoro] 1, [storo] 47, [stoo] 2,

[stoz] 26. It might appear that 'store' was a fairly recent borrowing, with only seventeen speakers having taken the loan to fully integrated [čitoro]. In fact, [čitoro] is found in the earliest studies of Shona (Doke 1931a,b). It is the more recent "reborrowing" which has resulted in unassimilated versions like [stoo].

Future prospects for alteration of the Shona phonological system. In Zimbabwe, there is constant migration between city and countryside, with urban bilinguals bringing new loans into the rural area, and monolingual citizens being exposed to new loans on visits to the city and in the media. The number of loan tokens with clusters, [l] and [θ] in the rural area show that even monolingual speakers have a partially expanded system. However, there will always be a pull toward integration from monolingual rural speakers. As the study reveals, these speakers are more likely to assimilate loans than the bilingual urban speakers.

It is probably the constant interaction between conservative rural monolinguals and innovative urban bilinguals that results in the great variability in the realization of so many of the loan tokens in this corpus. This variability is unlikely to end soon unless there are major changes in the sociolinguistic conditions responsible for the present state of affairs.

One potential source of change in the sociocultural setting is in the education level of the population as a whole. Level of education was shown to be significant in

affecting assimilation, with more educated speakers showing a lower integration index than less educated speakers. Many of our rural interviewees had not a single year of education. However, these speakers reported that all of their children were in school. If the education level of rural children is raised, the degree of societal bilingualism will also increase. Thus, we can expect the alterations in Shona phonology to proceed even more quickly. On the other hand, if the role of Shona in education and other formal spheres is broadly expanded to push English out of some of its functions, then change in Shona might be retarded.

Another possible source of change would be an alteration in the attitudes of speakers toward Shona and English. Giles, Bourhis and Taylor (1979, 319) note that speakers sometimes perceive the negative social identity of their language and work to achieve a more positive social identity for that language. This has been the case in Wales where Welsh has been revitalized due to efforts of its speakers to promote its use. Zimbabwean linguists and educators who have similarly promoted the use of all the Zimbabwean ethnic languages in the early school grades. If these leaders are successful in raising the consciousness of native speakers as to the value of Shona as a language, there might be a broad-based effort to maintain the purity of that language which could slow down some of the changes described in this study.

7.12 Additions to the lexicon.

Along with an expansion of the phonological system, this data reveals massive additions to the lexical system. The most noteworthy are additions to the core vocabulary in the form of numbers and function words. While such additions are thought to be rare, Mougeon and Beniak (1987), Hill and Hill (1986), Kartunnen (1981), Heath (1981, 1989) and Kratz (1986) have noted cases of core borrowing of a similar nature.

English origin numbers appear to have entered the lexicon as part of frozen cultural imports, but have been shown to have encroached in all semantic fields, even being used to indicate the number of children of some speakers. Despite their general pervasiveness in the corpus (84% of all numbers) no English origin numbers are attested in Hannan 1974. Likewise, high frequency function words of English origin are unattested.

Apart from numbers, borrowings come from a variety of semantic fields, with differences in individual "loan lexicons" reflecting differences in life experiences. In a interview from the urban area (Appendix D, sample #1), the borrowings of a young air-force storekeeper with two years of high school include words like [tr̲anspot] 'transport', [pr̲oblemz] 'problems, and [r̲ent] 'rent'. In contrast, a sixty-year old female farmer from the rural area (Appendix D, sample #2) uses loans like [čikwer̲eti] 'credit, [-tomasi] 'tomato', and [saga] 'sack' (of grain). Both speakers use [čikor̲o] 'school', [bazi] 'bus' and [motokar̲i] 'motorcar; vehicle'. Both use the Shona gadhen 'garden', realized as

[gaden] by the urban speaker and [gadeni] by the rural speaker. There is thus some overlap and some individuality in the loan lexicon depending on origin of the speaker. Similar overlap and modularity can be shown in the loan lexicons of individual speakers depending on speaker characteristics such as job and age.

Nouns account for the majority of loan types, with a concentration in noun classes 5/6 and 9/10. The large numbers of nouns in these classes have brought about a significant change in the balance of nouns from the various classes, but there is no evidence of a loss of noun classes.

It might be predicted that the expanding role for Shona in the "High" language functions of government and business will result in a decrease in the amount of lexical borrowing from English to Shona. However, Mkude (1986) reports just the opposite result for Swahili in Tanzania. He points out that as local languages take on increasingly more functions in society in the post-colonial era, they lack the vocabulary to fulfill the expanding functions, so that the rate of borrowing from the previous colonial language is accelerated even beyond what it was during colonialism. Mosha reports that in many post-colonial societies, despite pressure to coin new terms from the home language for expanded functions, many users have found it more efficient to bring in a known word from their second language (Mosha,1971,288; Gumperz, 1977, xvi).

7.13 Overall impact of Shona/English contact.

To compare the Shona/English situation with other cases of language contact, it is helpful to discuss Thomason and Kaufman's five-level "borrowing scale" (1988,74-76). This scale represents a continuum, from lightest to heaviest language contact and includes characteristic linguistic features associated with each level. In the framework, level 1 represents casual contact with only lexical borrowing, while level 5 represents very strong cultural pressure with heavy structural borrowing. The Shona corpus from this study contains examples of features found at levels 2 and 3 of the Thomason-Kaufman scale.

Among the characteristics of Level 2, slight structural borrowing, is phonological borrowing confined to the appearance of new phonemes occurring only in loans. The addition of [l] and [θ] in sample loans follow these criteria. Conjunctions and various adverbial particles such as those in Table 11 are borrowed in this stage.

Level 3, a medium level of cultural contact, results in slightly more structural borrowing. For example, inflectional affixes may enter the borrowing language attached to and remaining confined to borrowed vocabulary items. The plural {-s} on some Class six loans and on some number combinations (tuu awaz 'two hours') is an example of this type of borrowing. Borrowed numerals also enter a language at this level.

Borrowed phonology (Level 2) and borrowed numbers (Level

3) are both indicative of heavy linguistic contact. It may be that such features interact in their impact; such an interaction might account for the very low phonological integration of the borrowed numbers, compared to the average integration level. The "foreignness" associated by speakers with a core borrowing at Level 3 may result in the lowered propensity to realize these numbers with indigenous phonemes.

Instances of moderate and heavy structural borrowing from levels 4 and 5 are not represented in this data set. There are no examples of borrowed inflectional affixes added to native words, and no examples of the loss of phonemic contrasts and morphophonemic rules. There are no extensive word order changes.

Thus, the result of Shona/English contact seems to be a minor expansion of the Shona linguistic system rather than a major restructuring. Although the non-prefixed borrowing noun classes are now significantly larger than other classes, there is no evidence of the loss of noun classes. This may be because Shona has had a limited use as a lingua franca up to this time. Recently, British-origin Zimbabweans have begun to study the language, in the process experiencing difficulties which are reflected in a letter to the editor in the Harare Daily Mail: a second language learner bemoans the obstacles to mastering Shona because of the complex noun class system and advocates the use of a single noun class. The very lack of the use of Shona by non-native speakers has probably saved it from the regularization of linguistic

systems which can occur when large numbers of speakers take up a second language (Thomason and Kaufman, 50).

7.14 Social correlates. Thomason and Kaufman's framework was developed to measure the impact of language contact on the language systems involved. This research on Shona has also focused on characteristics of different groups of speakers within the Zimbabwe Shona speech community. In this study, degree of urbanization, educational level and gender were found to be correlated with degree of phonological integration. As noted above, the semantic fields of lexical items also varied for speakers with different sociocultural characteristics.

We have found variability in the use of loans in the Shona language as a whole and within the speech of various groups in the speech community. Variability is also found in the language of individual speakers because linguistic selections are always subject to the intentions of each individual speaker. Le Page and Tabouret-Keller (1985,14-15) note that the "acts of identity", the language choices made in search for identity in social terms, will differ for each individual in the speech community. It is important that we keep in mind the role of individuals and the variation in their language as we make generalizations about the impact of language contact on Shona in Zimbabwe.

7.2 Clarifying the processes of code switching and borrowing.

One of the major differences between Zimbabwean urban and rural speakers as they make their language choices, is that urban speakers are compelled to use English to fulfill purposes in their daily life. When one language is considered appropriate for home purposes while another is appropriate for public functions, bilingual speakers will need to use both languages to communicate, one to establish their claim to solidarity as a member of the local group, and the other to establish their claim to power as a member of the educated class (Scotton,1987, 1988; Le Page and Tabouret-Keller, 1985; Giles, Bourhis and Taylor, 1977; Heath, 1989). This may lead to code switching: "the alternative use of two languages by the same speaker during the same speech event (Lehiste, 1988, 21).

There has been a tremendous interest in code switching, because this process gives us information which will help to explain the storage and retrieval of language in the bilingual brain. The possible constraints on "mixing" two languages have been of great interest to linguists for a number of years (Fries and Pike, 1948; Kucera, 1958; Lovins, 1975; Sridhar and Sridhar, 1980; Sankoff and Poplack, 1981; Woolford, 1983; Joshi, 1985; di Sciullo, Muysken and Singh, 1986; Scotton, 1987, 1988; Myers-Scotton and Azuma, in press).

Distinguishing code switches from loans. One of the

most difficult tasks for researchers in this area has been to distinguish between code switched and borrowed language material. Chapter 4 mentions the various definitional criteria used in previous work and the problems related to them. As noted, the most widely used formula is to label as borrowings words from a foreign source which are phonologically and morphologically integrated into the language of the speaker. Code switches are those forms which are not so integrated.

The integration criterion was not used in this study because preliminary data from Ngara and Chimhundu indicated that many long-established high frequency loans in Shona were not fully integrated. This study provides solid support for the inappropriateness of using integration to identify loans. Tables 4, 5, 6, and 7 all provide evidence of the lack of complete integration of English loans in Shona.

Applying the integration criterion would be particularly difficult with a data set such as this one which exhibits so much variability. How would one classify a type with two tokens fully integrated and two tokens non-integrated?

This data provides evidence that morphological integration is just as inappropriate as phonological integration in separating loans from non-loans. As shown in Table 17, high frequency loans in this corpus occur with an English plural -s added to them, while one-time code switches are found with the Shona Class 6 ma- prefix.

Another criterion regularly used to distinguish foreign

source items is the gap filling rule. Only words believed to be filling semantic gaps in the language are labeled loans. In this system, the English origin numerals in this corpus would have to be called code switches since they have long established Shona counterparts. However, it is hard to deny loan status to a set of words which constitute 84% of all the number tokens in the sample. Thus, this data provide strong statistical evidence refuting gap filling as a legitimate criterion for identifying loans.

The final potential criterion used to distinguish borrowings from code switches is that borrowings are "accepted within the speech community as bonafide elements" (Mcclure, 1981, 70). One way to check this acceptability is to ask native speakers about the acceptability of potential loans (Kashoki,1978,82). However, as McClure (1981) argues, in many speech communities, foreign source items are stigmatized as incorrect or unacceptable, even if they occur regularly. Some Shona speakers who have read these transcripts have had a quite negative reaction to the English numbers showing up in the data set; their response was similar to that reported among speakers of Mexicano to Spanish numbers in the Hill and Hill study.

Poplack, Sankoff and Miller (1987) and Bokamba (1988) operationalize acceptability by checking several dictionaries for the attestation of possible borrowings. A check of potential loan types in this corpus found the majority of English origin nouns and verbs to be attested in Hannan's

Standard Shona Dictionary (1974), as reported in Table 11. On the other hand, some very high frequency English origin types were not attested . Unattested English numerals and function words may have been stigmatized as "foreign" for the reasons noted above. Other high frequency words (e.g., ranji 'lunch, 82 tokens; turanzipoti 'transport', 140 tokens) may be too recently borrowed to have gained acceptance in print. If dictionary attestation had been required for loan status in this study, significant loan types would not have been admitted.

Myers-Scotton's frequency count appears to be the only truly objective criterion for distinguishing code switched and borrowed material. It is based on the assumption that borrowed material is predictable; we can expect recurrences of a borrowed form in a large corpus of data. Code switches, on the other hand are not predictable. We can expect a pattern of the use of English words in the speech of a bilingual, but only those forms which recur in the speech of both bilinguals and monolinguals should properly be considered loans.

Code switching as the path to borrowing. Code switching and borrowing are closely related language contact phenomena. In fact, several linguists have argued that code switching is the initial step to borrowing in that the bilingual speaker brings in the word as a one time code switch, which catches on with other speakers, and is eventually taken up by monolingual speakers (Lehiste, 1988; Heath, 1989). Myers-

Scotton (in press) has suggested "a continuum of frequency between core loans and code switched forms...as the path by which core loans enter the borrowing language." The idea of a continuum is strongly supported by the relatively small difference between integration indices for the high and low frequency English origin words.

If we expect an integration index of 1 (fully integrated) for borrowed words in a traditional language contact study, we also expect an integration index of 0 for code switched words, those words from another language momentarily used by a single speaker which have not been adopted into the language on a permanent basis. To provide a basis of comparison, the degree of integration was also recorded for words of English origin which did not meet the borrowing criteria: that is they occurred in only one or two transcripts. As shown in Table 18, the index of integration for these words was .36 for both types and tokens.

Table 18. Average integration index for high and low frequency English origin nouns and verbs.
(1=fully integrated, 0=not integrated)

	English origin nouns and verbs	
	High frequency >3 interviews	Low frequency <3 interviews
Types	.41	.36
Tokens	.49	.36

*Borrowed numbers and function words were excluded so that groups of words from equivalent categories could be compared.

When we compare the integration indices of equivalent groups of high and low frequency English origin words, we

find a greater degree of integration for the former, but certainly not the 1:0 dichotomy expected. The similarity of integration indices provides evidence to support the close relationship between borrowing and code switching as language contact phenomenon.

7.3 Broader implications of the study.

7.31 How can we best characterize a linguistic system which includes variability.

As noted above, much of the research on code switching has focused on determining the linguistic system of a bilingual individual: Does it contain a single set of rules combining features of the two languages; or does it have two rule systems with an overlapping portion; or is there a dominant matrix and a secondary embedded system?

This data forces us to look at an even more fundamental question. What about monolingual speakers whose loan lexicons fail to follow the established rules of the language in terms of phonological integration? Should unassimilated English loans in the speech of these speakers be considered to fall within the scope of the Shona language? Fries and Pike (1949,29) took up this question forty years ago in a paper which argued that "two or more phonemic systems may coexist in the speech of a monolingual." They reported that in Mazateco, voiceless stops became voiced after nasals, except in high frequency loans like siento 'hundred' where such voicing did not occur (Fries and Pike, 1949, 30). Fries

and Pike believed that there was a core phonemic system for Mazateco, and a peripheral system that was highly fragmentary but nonetheless a real portion of the linguistic system of the speaker (31).

Actually, arguments about the unitary nature of language had been going on long before the Fries and Pike study. Heath (1989, 193) discusses Sapir's view that language:

> was a tightly integrated system deeply ingrained in its speakers, subject to (usually very slow) historical changes which were themselves heavily constrained by ... the initial system.

Heath's study of borrowing in Moroccan Colloquial Arabic (MCA) revealed not a unitary response to pressures of French and English but different parts of the system being impinged upon to greater and lesser degrees. For example, borrowed verbs were phonologically assimilated more completely than borrowed nouns, due to greater restrictions on canonical shape and sequencing of MCA stems (Heath, 1989,197).

Heath's results are strikingly duplicated in the assimilation behavior of verbs and nouns in this study, with English origin verbs in Shona showing greater phonological assimilation than nouns. In the Shona case, the motivation appears to be morphological, but the results are the same: adaption routines differ for different form classes in the language.

Core borrowings in this data--English origin numbers and function words--have no official acceptance as part of the language in terms of attestation in the Standard Shona

Dictionary. It was hypothesized earlier that their very "foreignness" may be a factor in the particularly low assimilation rates for these words. Efforts to keep foreign words out of a language, however, have often failed, as language planners of the world are aware. It is difficult indeed to legislate what may come into a language and what can be excluded, whether it be a preferred pronunciation or a preferred lexical item.

7.32 Internally versus externally motivated language change.

A more recent view of language change reflects the importance still attached to internal factors as essential components in establishing the direction of the change.

> Linguistic change, then, is governed by two factors: On one hand there are linguistic notions such as naturalness, structure and function, which provide the 'raw material' for change. plus the notion of perceptibility, which imposes a kind of 'ranking' on the variables of actual speech. On the other hand is a social element which, from the linguistic point of view, arbitrarily selects one of the many possible, linguistically motivated, processes for sociolinguistic marking and generalization. (Hock, 1986, 655)

Hock summarizes a common view of the interrelationship between internally and externally motivated language change: social forces will result in "linguistically motivated" language change. That is, while the specific feature undergoing the change may be arbitrary, the possibilities for change can be predicted by theories of naturalness and internal motivation. This sort of "naturalness" explanation

has been used to account for changes like the devoicing of word-final consonants in German.

However, the features in focus in this study are not arbitrary at all, but exactly those points of difference between the lending language and the borrowing language. The changes noted in this data, moreover, do not fit the "naturalness" criterion. The acceptance of closed syllables and additional consonant clusters takes the Shona system away from the ideal CV syllable of Bantu languages. The addition of new phonemes, particularly unassimilated [θ], cannot be attributed to internal motivation.

This data then supports Thomason and Kaufman's argument that external pressures can result in changes which cannot be well explained on the basis of internal criteria. In this case, the external factor is the use of English as the High variety by Shona/English bilinguals in the current Zimbabwe setting.

7.4 Limitations of the study and suggestions for future research

There are a number of limitations of this research, several of which point to the need for future studies.

Assimilation of vowels. First, it is necessary to study the assimilation of vowels in borrowed words to construct a comprehensive picture of phonological integration in Shona. It is hoped that a phonologist with good equipment will do a similar study to this one with a focus on vowel integration.

It is to be remembered, however, that laboratory studies of speakers pronouncing words in isolation may have quite different results than studies of conversation taped in a natural setting.

Eliciting the same loan types from every interviewee. It would have been extremely useful to have tokens of several borrowed words pronounced by every single person in the sample. However, efforts to elicit specific words without asking a subject questions like "How do you say 'basket'?" were only partially successful. We managed to elicit krisimasi from 97 of 132 interviewees (73%). However, our question to elicit bhasikiti were successful in only 51 interviews (39%). It appears that most Zimbabweans these days carry their bread home in ma[pepabegi] 'paper bags' or ma[purasitikibegi] 'plastic bags'.

One of the loans appearing in the greatest number of interviews (72, or 55%) was the word [transpot] turanzipoti 'transport', a particularly illuminating loan type because of the consonant clusters involved. This word appeared frequently in both urban and rural questionnaires in answer to a very general question to which no particular answer had been expected: "What is your biggest problem these days?"

Thus, it will always be a problem to collect comparable data and to predict which words will appear when naturalistic data collection is used. On the other hand, we were able to gather 391 loan types with a minimum of three appearances in our sample of relatively brief ten-minute interviews. There

is thus sufficient data for comparison even in data from conversational interviews.

The difficulty in determining "bilingualism". It was possible to compare groups of speakers with different sociocultural characteristics by setting up dichotomous groups (older/younger, male/female) which could then be compared. However, efforts to divide speakers into "bilingual" and "monolingual" groups proved to be unsuccessful in this study. The interview included questions addressed to the interviewee in English with the plan that speakers who successfully answered the questions could be labeled "bilingual" and that those who failed to understand the questions could be labeled "monolingual."

Certainly, rural speakers who did not understand the simple question "Where are you from?" might safely be labeled monolingual. But what about speakers who understood the question but answered it in Shona. Other rural speakers answered the question in English with difficulty while still others answered the question and elaborated on their answer in English in detail. Responses similar to the latter two were common in the urban setting as well.

When we look at actual linguistic behavior in an interview setting, there appears to be a continuum from truly monolingual to highly bilingual which resists division into separate groups, unless some sort of testing instrument is applied at the close of an interview. Testing bilingual skills at the outset of the interview would certainly have an

inhibiting affect on eliciting natural speech.

Coexistent systems. More time needs to be spent developing a theoretical model that will account for the variability observed in the speech of the monolinguals in this study. While many worthwhile models of codeswitching have been offered for analysis, little has been done to account for variability in the speech of monolinguals since Fries and Pike, 1949. This data provides a wealth of evidence which can be used to establish a model which can take into account current linguistic theory.

7.5 Summary of major findings.

Despite its shortcomings, this study provides new information about borrowing which should make a definite contribution to the field of language contact. First of all, the study is based on solid quantitative evidence from a large corpus (twenty-two hours) of spoken Shona from 132 speakers. These speakers include young and old, male and female, rural and urban, and more and less educated Zimbabweans. The results are not confined to data regarding a few loans and how they are realized. An attempt has been made to describe the overall borrowing behavior of Shona speakers with a resulting analysis of 391 loan types and 6,294 loan tokens. Thus, the study can serve as a baseline survey against which other borrowing studies can be compared.

The descriptive aspect of the study particularly focuses on variability in the realization of loans. Some of the

variability has been shown to be correlated with sociocultural characteristics of the speakers. Other variation is correlated with structural aspects of the language. The rich variability revealed in the data set leads to a second contribution of this study: evidence that language is not a highly integrated unitary system but a complex phenomenon with core and periphery components. Taking into account the many possible sources of variation may provide the best way to achieve valid results. Rather than discounting variation as an unwanted source of interference in an otherwise tight system, it is important for researchers to accept variation as an element which can offer important insight into the system as a whole.

APPENDICES

APPENDIX A

QUESTIONNAIRES

Urban, used in Chitungwiza.

Matambudziko api amunowo pamagariro eupenyu hwenyu?
What are some of the problems in every day living these days?

Munoita basa rei? What kind of work do you do?

Munosevenza kupi? Where do you work?

Mune nguva yakadii muchisevenza ikoko?
How long have you worked there?

Matambudziko api amunowana pakuenda kubasa?
What kind of problems do you have getting to work?

Munoenda nei kubasa? How do you go to work?

Munomuka nguva ipi mangwanani mosvika kubasa?
When do you get up in the morning and when do you get to work?
Saka mapedza basa mosvika kumba nguvai?
After work, what time do you get home?

Munganditaura kuti kazhinji nguva yenyu zhinji inopera muchiitei kubasa. Can you tell me how you spend your time at work on a typical day?

Ko mabasa rudzii anosevenzwa wevamwe vamunosevenza wavo.
What kinds of jobs do others do at the same place.

Zvinokwanisika here kuti munguva inotevera mungawana basa rakanaka mukati imomo. Is there any possibility of your getting a better job at this place?

Ko mune tii <u>time</u>? Do you have tea time?

Munoita nguvai? At what time?

Ko kana muri patii <u>time</u> munenge muchitaura nezvei?
When you have tea time what do you talk about?

Ko, munodya <u>lunch</u> here? Do you have lunch?

Nguvai? At what time?

Munenge muchitaura nezvechii panguva iyoyo?
What do you talk about at that time?

Kana masvika kumba manheru munozvika itei?
When you arrive at home in the evening, what do you do?

Muri kuzviona kuti muno muHarare mava wemotokari nemarori akawanda uyezve kuti mava nema<u>accident</u> akawanda munozviona sei.
You may have noticed there are more cars and lorries in Harare these days. Also there seem to be more accidents on the road?
Ko makamboona here <u>accident</u>? Have you ever seen an accident?

Imimi pachenyu kana hama yenyu pane akambowirwa here ne<u>accident</u> yemotokari yemumugwagwa kana yerumwe rudzi?
Have you yourself or any relatives ever been in a bad accident of any kind on the road or elsewhere?

Ko munoona here kuti upenyu hwenyu hune budiriro makore mashanu ari kutevera?
Do you expect conditions will improve in the next five years for you?

Mune makore mangani? How old are you?

Makadzidza zvakadii? What is your level of school.

Munotaura chirudzii? What language do you speak?

Munofunga munotaura chiRungu zvakadii?
How well do you speak English?

Do you speak English at work at all?

To whom?

What languages have you spoken in the last two or three days?

To whom?

Ndoda kubvunza mibvunzo mishoma-shoma. Kana vanhu vari kumusha vanotenga kupi zvivedzo zvavo?
I want to ask you a few questions. Where do people at the reserves buy their fishhooks?

Ko kana muri kumusha munotakurira chingwa chenyu pai?
When you are at home, where do you carry your bread?

Kumba kwenyu kune vana here vari <u>over seven years</u>.
At your house do you have any children who are over seven years.

Vari kuitei? What are they doing?

Iholiday ipi yamuno nyanya kutenga mbatya dzenyu yekupera kwegore?
Which holiday do you buy new clothes at the end of the year?

Ko head office yeChitungwiza iri munzvimbo ipi?
Where is the head office of Chitungwiza?

Mune zvimwe zvamungada kutaura kuwedzera pane zvatataura?
Do you have anything to say to add to what we have been talking about?

Rural:

Titaurirei kuti chii chamunoita zuva rese kubva pamunenge mamuka?
How do you spend the day from the time you wake up in the morning.

Ko kana iri nguva yezhizha iwi chamunoita kubva pamunomuka kusvika rivire zvakare?
When it is summer, how do you spend the day.

Ko pane zvekudya, kudya kwemakuseni kwemasikati manheru munokufambisa sei?
What about food. How do you have your food in the morning, afternoon and in the evening?

Nderipi dambudziko remuri kuona nenyaya dzetransport mudunhu menyu muno umu?
Which transport problems are you facing in this area.

Munofunga kuti GMB zvinoreva kuti chii? What do you think GMB means?

Pamunokwidza masaga enyu mumotokari zviye izvi kuti muendese kuGMB, ko makadhi enyu ekuGMB, munopa ani?
After loading your sacks in the motorcar to whom do you give your GMB cards?

Semazuva ano muri kuona kuti dambudziko renjodzi mumigwagwa riri kuti nyanyei, mune njodzi yamakamboonawo here mumugwagwa ichiitika?
These days you are seeing that the problem of road accidents is mounting. Have you ever seen an accident happening on the road?

Kana kuti hama yenyu pane akamboonawo here achizokutaurira kuti ndaona tsaona yakati.
Do you have a relative who saw and told you that he had seen an accident of this type?

Mune tarisiro yekuti mamakore mashanu ari kuuya ayo upenyu hwenyu hungave hwachinja here kana kusanduka.
Do you have hope that in the next five years your live will change or alter?

Mune dambudziko here ramunosangana naro zuva rega-rega kana makagara pamusha penyu pano apa?
Do you have a problem which you come across each day when staying in this village of yours?

Pane tsaona here yamukamboona yakati murodhi pamazuva achango pfuura aya hama kuti mune hama yakamboona here kana kuti yakaita tsaona?
Have you recently seen a road accident or do you have any of your relatives who have witnessed or been involved in an accident?

Mungati tsanangudzire kuti zvakanga zvaita sei, kana kuti zvakaitika riinhi?
Can you explain what happened and when it happened?

Madambudziko api anoita kuti imi musava nekupenyu hwakanaka nemhuri yenyu?
What problems affect your family's living standard?

Munofunga kuti chii chingaitwe kuti dambudziko irori ringe rinoti pedzwei?
What would you suggest for getting this problem solved?

Munoona kujeka kweupenyu here pamakore mashanu anotevera?
Do you predict an improvement in life in the next five years?

Inguva ipi mugore yamunowanzotengera mhuri yenyu mbatya itsva?
In what time of the year do you normally buy your family new clothes?

Pane mitambo here inoitika yamunofungidzira kuti mungatere vana venyu hembe?
Are there any occasions which happen for which you think you should buy your children clothes?

Ko chingwa chenyu munotenga kupi?
Where do you buy your bread?

Toti matenga chingwa chenyu. Munochitakurira pai kana muchinge machitenga chingwa chenyu?
Say you have bought your bread. In what do you carry it after you have bought your bread?

Mune vana vadiki here vari pamusoro pemakore manomwe vamunogara navo.
Do you have children over seven who live with you?

Vari kuitei pari zvino? What are they doing around here?

Mune makore mangani okuzvarwa? How old are you?

Makadzidza zvakadii? What is your level of education?

Ko chiRungu munokwanisa kutaura here? Can you speak English?

Ko ndikakubvunzi nechiRungu kuti "how old are you" munofunga kuti zvinorevei nemuchiShona?
If I say "how old are you" could you tell what it means in Shona?

Ko ndikati "Where were you born" munofunga kuti zvino revei nemuchiShona chacho?
If I say "where were you born" could you tell what is means in Shona?

Ko kana muchiwunga murwizi chii chamunenge muchiunga?
What do you pan for in the river?

APPENDIX B

BORROWED WORDS

Standard spelling	Code[1]	English translation	Phonetic variants
adhawaizi	*/3:3	otherwise	[aðawaiz]
adhiresi	9/1:1	address	[adiṛes]
afuta	*/4:5	after	[afta]
agasiti	1a/7:10	August	[agasti] 1[agast] 6
akaunzi	9/3:6	accounts	[akaunz]
amburenzi	9/6:6	ambulance	[amburenzi] 1 [ambulensi] 1 [ambulens] 4
awa	5/9:9	hour	[awaz] NC
bhafu	5/1:1	bath	[baf]
bhafudhe	5/1:1	birthday	[baθude]
Bhaibheri	5/4:4	Bible	[baiberi] 3 [baibel] 1
bhaisikoro	5/6:8	bicycle	[basikoro] 5 [baisikal] 1
bhajeti	*/4:7	budget	[bajeti] 1 [bajet] 3

[1]Key to entries: bheka[a] 5[b]/2[c]:8[d] bakery[e]
bhengaV[f] H[g]/2:3 bankV
bhati *[h]/17:22 but [bati] 6 [bat] 11[i]

a) Standard Shona orthography. Unattested entries are spelled following Mkanganwi, 1975 with the assistance of Natsa. b) number indicates Noun Class from Hannan 1974. c) number of interviews word appeared in. d) tokens in corpus. e) English translation. f) V=verb. g) H=high,L=Low tone marking from Hannan. h) * indicates word does not appear in Hannan. i) When phonetic realization is variable, alternative realizations are given, with the number of transcripts for each pronunciation. If one realization is given, all interviews contained this alternative. NC indicates Numerical construction, e.g., 5 dhorazi 'dollars'.

bhakati	5/2:2	bucket	[bakiti] 1 [bagit] 1
bhambu	5/1:1	bomb	[bambu]
bangi	5/2:2	bank	[bank]
bhanzi	5/2:4	buns	[banzi] 1 [banz] 1
bhara	5/1:2	wheelbarrow	[bara]
bharanzaV	H/3:3	balance	[balanza]
bharanzi	5,9/1:1	balance	[balans]
bhasikiti	5/51:63	basket	[baskiti] 6 [baskit] 47 [baskitSi] 16 [baskitS] 16
bhatani	5/1:1	button	[batani]
bhati	*/17:22	but	[bati] 6 [bat] 11
bhawa	5/9:13	bar	[bawa]
bhazi	5/89:414	bus	[bazi] 72 [baz] 2 [bazaz] 3
bhegi	5/11:13	bag	[begi] 1 [beg] 5 [begZi] 1
bheka	5/2:8	bakery	[beka]
bhengaV	H/2:3	bank	[benga]
bhenji	5/1:1	bench	[benǰi]
bhii	5/1:1	B	[bii]
bhikozi	*/14:23	because	[bikozi] 1 [bikoz] 13
bhinzi	5,9/5:5	beans	[binzi] 4 [binz] 1
bhiridha	5/4:6	builder	[birida] 1 [bilda] 1 [bildaZ] 2
bhiridingifandi	*/3:3	buildingfund	[bildinfand]
bhiriji	5/6:7	bridge	[briǰi] 2 [briǰ] 4
bhisikiti	5/1:1	biscuits	[biskitSi]
bhizimisi	5/3:3	business	[bizimis] 1 [bizinis] 1 [bizniz] 1
bhodhi	5a/1:1	body	[bodi]

bhodhi	5b/12:12	board	[bodi] 1 [bod] 11
bhodhoro	5/6:6	bottle	[bodoro] 3 [botoro] 2 [botal] 1
bhohoro	*/17:22	borehole	[bohoro] 3 [boho] 14
bhokisi	5/3:3	box	[boksi] 2 [boks] 1
bhonasi	*/8:10	bonus	[bonasi] 1 [bonas] 7
bhora	5/4:4	ball	[bora]
bhoraco	5/1:4	brush	[borač]
bhuku	5/17:19	book	[buku]
bhurakufesi	5/29:39	breakfast	[burakfesi] 1[brakfesi] 1 [brekfasi] 1 [brekfasti] 1 [brekfasti] 1 [burakfes] 4 [brakufes] 2 [brakfes] 11 [brekfas] 5 [brekfast] 2 [blakfest] 1
bhurangeti	5/2:4	blanket	[branget] 1 [blanket] 1
bhurekaV	L/1:1	break	[breka]
bhureki	5/10:11	brake	[breki] 1 [brek] 9
chanzi	9/4:4	chance	[čanzi] 1 [čanz] 1 [čans] 1
chechi	9/9:10	church	[čeči] 7 [čeč] 2
cheki	9/15:21	check	[čeki] 11 [čekS] 1
chenji	9/1:1	change	[čenji]
cheyamani	1a[3:3	chairman	[čeyaman]
chihanduru	7/1:1	handle	[cihanduru]
chikapu	7/1:1	cup	[čikapu]
chikonzero	7/12:16	cause	[čikonzero]
chikoro	7/88:239	school	[čikoro]
chinjaV	L/36:86	change	[činja]
chinyuwani	*/5:5	new one	[činyuwani] 2 [činyuwan] 3
chipatara	7/4:4	hospital	[čipatara]

chitambi	7/1:1	stamp	[čitambi]
chitofu	7/1:1	stove	[stov]
chitoro	7/69:82	store	[čitoro] 17 [sitoro] 1 [storo] 47 [stoo] 2 [stoz] 26
dhamu	5/6:11	dam	[damu]
dhauzeni	5/1:1	dozen	[dauzan]
dherivheraV	*/4:7	deliver	[derivera]
dhinha	5/1:1	dinner	[dina]
dhipatimendi	*/5:5	department	[dipatimendi] 1 [dipatment] 3 [dipatmenZ] 1
dhiraivha	1a/32:37	drive	[diraivha] 1 [draiva] 31 [draivaZ] 1
dhiraivhaV	L/10:13	drive	[draiva]
dhiramu	5/1:1	drum	[diramu]
dhirezi	5/1:4	dress	[direzi]
dhisemba	*/23:29	December	[disemba]
dhisikasheni	*/4:4	discussions	[diskašen] 1 [diskašenz] 3
dhisikazaV	*/6:10	discuss	[diskaza
dhisipachaV	*/3.3	dispatch	[dispača]
dhiziri	5/1:1	diesel	[diziri]
dhokota	1a/2:2	doctor	[dokta]
dhongi	5/1:1	donkey	[dongi]
dhoo	5/3:3	door	[doo]
dhora	5/23:47	dollar	[dora] 1 [doraZ] 5-NC [dola] 6 [dolaZ] 17-NC
ekisidendi	*/51:153	accident	[eksidendi] 1 [eksidenZi] 1 [eksident] 62[eksidentS] 11
ekisipirienzi	*/4:5	experience	[ekspirienz]

ekisitendaV	*/3:4	extend	[ekstenda]
emvuropu	9/1:1	envelope	[envuropu]
ende	*/10:12	and	[ende] 6 [end] 4
enesipikita	1a/1:1	inspector	[enspekta]
esipeshari	*/10:10	especially	[espesali]
eyapoti	*/4:4	airport	[eyapot]
eyite	*/16:18	eighty	(includes 81-89)
eyiti	*/38:55	eight	[eyit]
faifi	*/72:112	five	[faifi] 4 [faiv] 68
fairaV	H/1:1	file	[faila]
famiri	*/3:3	family	[famili]
fanicha	9/1:1	furniture	[fanič̆a]
fekitari	9/2:2	factory	[fektar̲i]
fenzaV	H/1.1	fence	[fenza]
fenzi	9/3:3	fence	[fenzi] 2 [fenz] 1
fesaV	H/1:1	face	[fesa]
festiyedhi	9/1:1	first aid	[fested]
fetiraiza	9/9:15	fertilizer	[fetir̲aiza] 6 [feturai] 2 [fetil̲aiza] 1
fidhaV	H/2:2	feed	[fida]
fifite	*/9:11	fifty	[fifte] (includes 50-59)
fifitini	*/7:11	fifteen	[fiftini] 1 [fiftin] 6
firidhomu	*/3:3	freedom	[fr̲idom]
firimu	9/1:1	film	[fir̲imu]
fitaV	H/1:1	fit	[fita]
fomu	5,9/47:65	form	[fomu] 5 [fo] 1 [fom] 41
foni	9/3:3	phone	[foni] 1 [fon] 2

foo	*/72:99	four	[foo]
foromaV	L/3:3	form	[foroma]
foti	*/11:12	forty	[foti] (includes 40-49)
furati	9/1:1	flat (apt)	[flatS 1
furawa	9/5:5	flour	[furawa] 2 [fulawa] 1 [flàwa] 2
furuwenza	9/1:1	influenza	[furuwenza]
gadha V	H/1:1	guard	[gada]
gadheni	5/49:91	garden	[gadeni] 15 [gaden] 34
gedhe	5/1:1	gate	[gede]
getsi	5/2:2	electricity	[getsi]
giredhi	5/70:123	grade	[giredi] 3 [gredi] 9 [gired] 1 [gred] 53
gireni	*/12:12	grain	[greni] 3 [gren] 9
girosa	5/20:24	grocer	[grosa]
girosari	*/14:16	grocery	[grosari] 12 [grosariZ] 2
giviweyi	*/3:3	giveway	[givweyi]
go	*/3:3	go	[go]
gorodhi	5,9/10:10	gold	[gorodi] 8 [gold] 2
gudzu	*/3:3	goods	[gudz]
hadhiweya	*/5:5	hardware	[hadweya
hafu	9a/5:5	half(measure)	[hafu] 4 [haf] 1
hafu	9b/43:70	half(past)	[haf]
haijambu	9/1:1	highjump	[haijamp]
hanyanisi	9/2:2	onions	[hanyansi] 1 [hanyanz] 1
hayaV	H/1:1	hire	[haya]
hedikotezi	*/3:3	headquarters	[hedkotez]
hofisi	9/11:11	office	[hofisi] 3 [hofis] hofisiZ 1

horidhe	9[41:50	holiday	[horide] 7 [holide] 34
hosipitara	9/16:20	hospital	[hosipitara] 1 [hospitara] 1 [hosipita] 1 [hospita] 5 [hospital] 8
hotera	9/1:1	hotel	[hotera]
huraV	H/1:1	whoreV	[hura]
hure	5/1:1	whore	[hure]
huta	9/1:1	hooter (horn)	[huta]
hwani	*/72:134	one	[wani]9 [wan] 63
imejenzi	*/5:5	emergency	[imejenzi]
inidhasitiri	*/6:6	industry	[indastri]
inidhipenidhenzi	*/5:5	independence	[indipendenz]
inifakiti	*/4:4	in fact	[infakti] 1 [infakt] 3
inikomutekisi	*/4:4	incometax	[inkomteks]
inisipekitaV	*/4:4	inspectV	[insipekita] 1 [inspekta] 3
injini	9/2:2	engine	[inǰini] 1 [inǰin] 1
injiniya	1a/1:1	engineer	[inǰiniya]
irevheni	*/16:21	eleven	[ilevhen]
irigesheni	*/3:3	irrigation	[irigesen]
ishuwaV	*/3:3	issue	[išuwa]
Isita	9/4:4	Easter	[ista]
Jesu	1a/3:4	Jesus	[ǰesu]
joinhaV	*/5:5	join	[ǰoina]
joki	5/1:1	yoke	[ǰoki]
Junhi	1A/5:7	June	[ǰuni] 2 [ǰun] 3
Jurai	1A/3:3	July	[ǰurai]
juzu	5/11:15	jersey	[ǰuzu] 9 [ǰuzi] 2
kabhiji	5/1:1	cabbage	[kabiǰi]

kadhi	5/29:39	card	[kadi] 26 [kadZi] 2 [kad] 1 [kadZ] 2
kadhibhokisi	5/5:5	cardbox	[kadbox]
kaki	9/1:1	khaki	[kaki]
kanzuru	5/1:1	council	[kanzul]
kapu	9/2:2	cup	[kap]
kara	9/3:3	color	[kara] 1 [kala] 1 [kalaZ] 1
karotsi	5/2:2	carrots	[karotsi]
kashiya	1A/5:5	cashier	[kašiya] 4 [kasiyaZ] 1
kasitoma	*/9:13	customer	[kastoma] 6 [kastomaZ] 3
katani	5/1:1	curtains	[katanZ]
kaundaV	H/2:2	count	[kaunda]
kavhaV	H/3:3	cover	[kava]
keke	5/1:1	cake	[keke]
kicheni	9/1:1	kitchen	[kičen]
kirabhu	9/1:1	club	[klab]
kirasi	9/7:10	class	[krasi] 1 [krasiZi] 1 [kras] 1 [klas] 4
kirechi	9/12:15	creche	[kres]
kiriniki	9/14:28	clinic	[kirinika] 1 [krinika] 1 [kriniki] 3 [krinik] 2 [kliniki] 1 [klinik] 6
kirosaV	*/10:12	cross	[krosa]
kiyuu	*/5:5	queue	[kiyuu]
kokokora	*/3:5	cocacola	[kokora]
komboni	5/11:13	company	[komboni] 10 [kombonizi] 1
komiti	*/3:6	committee	[komiti]
kona	9/6:8	corner	[kona]
konzeraV	H/20:34	cause	[konzera]

kopa	*/3:3	coop	[kopa]
korizheni	*/3:3	collision	[korižen] 1 [koližen] 2
korosipondaV	*/6:8	correspond	[korosponda]
kosi	9/11:16	course	[kosi]
kositofulivin'i	*/4:5	cost of living	[kostoflivinj]
kota	*/30:42	quarter	[kota]
kotoni	9/3:3	cotton	[koton]
kowoperetivhi	*/5:5	cooperative	[kowoperetiv]
Krisimasi	9/97:205	Christmas	[kisimasi] 1 [kismasi] 1 [kismisi] 1 [krismasi] 2 [kisimas] 1[kisimus] 2 [kisimis] 1 [kismas] 2 [krisimas] 1 [krismas] 86
maira	9/1:1	mile	[maira]
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manija	1a/9:11	manager	[manija]
manijaV	H/1:1	manage	[manija]
mansi	*/11:13	months	[mans] NC
manyowa	6/1:4	manure	[manyowa]
me	*/3:3	May	[me]
meyibhi	*/3:3	maybe	[meyibi]
minisitiri	*/3:3	ministry	[ministri]
minitsi	9/9:12	minutes	[minits] NC
mishoni	9/1:1	mission	[mišon]
mota	9/39:63	motor(car)	[mota]
motika	9/8:15	motorcar	[motoka]
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mubheda	3/1:1	bed	[mubeda]
muchina	3/4:7	machine	[mucina] 1 [musini] 1 [masina 2
muforo	3/2:2	furrow	[muforo]
mupurisa	1a/1:1	police	[mupurisa]
naini	*/26:36	nine	[nain]
naintini	*/14:18	nineteen	[naintini] 2 [naintin] 12
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nyowani	*/3:3	new one	[nyowani]
nyufomu	9/10:13	uniform	[nyufom] 1 [yunifomu] 2 [yunifom] 7
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nyuzi	10/1:1	newspaper	[nyuzi]
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ofukosi	*/4:4	of course	[ofkos]
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Okutobha	1a/2:2	October	[oktoba]
oranji	5/1:2	orange	[oranji]
Orevhoro	*/7:7	O level	[olevo] 6 [olevoZ] 1
ovhataimi	9/2:3	overtime	[ovataimi] 1 [ovataim] 1
ovhatekaV	*/7:10	overtake	[ovateka]
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pakaV	*/9:9	pack	[paka]
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parafini	9/1:1	paraffin	[parafini]
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pedhesitiriyeni	*/4:4	pedestrian	[pedestriyen] 2 [pedestriyenZ] 2
pegaV	H/1:1	peg	[pega]
pei	9/5:5	pay	[pei]
pendaV	H/2:3	paint	[penda]
pendi	9/1:1	paint	[pendi]
penzuru	9/2:2	pencil	[penzuru]
pepa	5/22:25	paper	[pepa] 21 [pepaZ] 1
pepabhegi	*/30:38	paperbag	[pepabegi] 5 [pepabeg] 19 [pepabegZ] 6
pepanhau	5/2:2	newspapers	[pepanau]
peturu	9/1:1	petrol	[peturu]
pirindaV	L/1:1	print	[pirinda]
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pizi	9/2:3	peas	[pizi]
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poriyo	9/1:1	polio	[poriyo]

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poromosheni	*/6:7	promotion	[promošen]
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positaV	H/1:1	post	[posta]
poto	9/1:1	pot	[poto]
puraizi	*/6:6	price	[praizi] 4 [praiziZ] 2
puranaV	L/2:2	plan	[purana] 1 [plana] 1
puranga	5/1:2	plank	[puranga]
purazi	*/13:14	plus	[prazi] 2 [plazi] 5 [plas] 6
puresa V	L/1:1	press	[presa]
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raini	5/3:3	line	[raini] 2 [rain] 1
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rendi	9/4:4	rent	[rendi] 1 [renti] 1 [rent] 2
repi	5,9/1:1	rape	[rep]
retsisai	*/3:5	let'say	[resai] 1 [letsai] 2
rezenisi	5/4:5	license	[rezens] 1 [laisenz] 3
ridhi	5/1:1	lid	[ridi]
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riji	*/3:3	ridge	[riǰi] 2 [riǰ] 1
robhoti	5/10:20	robot	[roboti] 1 [robot] 7 [robotS] 2
rodhaV	H/1:1	load	[loda]
rodhi	5/43:50	road	[rodi] 18 [rod] 24 [rodZ] 1
rofu	5/1.1	loaf	[rofu]
rojaV	*/3.3	lodge	[roǰa] 1 [loja] 2
rokesheni	11/8:10	location	[rukeš̌eni] 3 [rokeš̌en] 5
rori	5:11/14	lorry	[rori]
ruwa	11/6:6	rural (area)	[ruwa]
ruzaV	H/1:1	be loose	[ruza]
ruzaV	HL/1:1	lose	[ruza]
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saga	5/13:26	sack	[saga]
saidhi	*/8:12	side	[said]
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saizi	9/3:3	size	[saiz] 2[saizeZ] 1
saki	5/5:7	sack	[saki]

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sauti	9/2:2	salt	[sauti]
sekondari	*/8:8	secondary	[sekondari
Sekutemba	*/3:3	September	[septemba]
senda	9/1:1	center	[senda]
sendi	5/5:8	cent	[sendi] 1 [senzi] 1 [sents] 3 NC
sero	9/1:1	sale	[sero]
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shopin'isenda	*/3:3	shopping center	[sopinjisenda]
shopo	9/3:5	shop	[sopo] 1 [sop] 2
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simashi	*/3:3	smash	[smasi] 2 [smas] 1
simende	9/1:1	cement	[siment]
sipeya	*/3:3	spare	[speya] 1 [speyaZ] 2

sipotsi	*/4:8	sports	[spotsi] 2 [spots] 4
sitaki	*/3:3	stock	[stako] 1 [stak] 1 [stakS] 1
sitandati	9/28:28	standard	[standadi] 4 [standad] 24
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soja	5/7:10	soldier	[soja]
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sosaiti	*/3:4	society	[sosaiti]
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supavhaiza	1a/9:9	supervisor	[supavaiza] 8 [supavaizaZ] 1
taimi	9/10:12	time	[taim]
taipaV	H/1:1	type	[taipa]
takishopu	*/6:6	tuckshop	[takšop]
tangi	5,9/2:2	tank	[tangi]
tara	9/1:1	tar	[tara]
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tati	*/65:71	thirty	[θati] (includes 30-39)
taundi	5/34:52	town	[taundi] 10 [taund] 1 [tauni] 2 [taun] 21
taundishipi	*/11:18	township	[taundišipi] 2 [taundišip] 2 [taunšip] 7
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tebhuru	9/1:1	table	[tebal]
temu	9/1:3	term	[tem]
teni	*/60:89	ten	[ten]
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tera	5/1:1	tailor	[tera]
ticha	1a/11:13	teacher	[tiča] 6 [ticaZ] 5
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tikiti5	9/1:1	ticket	[tikit]
timu	9/1:2	team	[timu]
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tomasi	5/9:9	tomato	[tomati] 7 [tomasi] 2
tsaga	5/8:13	sack	[tsaga]
turanzipoti	*/72:140	transport	[transpoti] 7 [traspoti] 2 [taraspot] 1 [traspot] 1 [transpot] 59 [transpotS]1
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vhiki	5/4:5	week	[viki] 1 [wikS] 3 NC
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wejesi	*/3:3	wages	[wejes]
weredha	*/3:3	welder	[wereda]
weta	1a/2:2	waiter	[weta]

windapurawa	*/4:4	winterploughing	[windapurawa] 2 [windaplawa] 2
windo	5/3:3	window	[windo]
yezi	*/50:69	years	[yez] NC
yunivhesiti	9/3:5	university	[yunivesiti]
zaminishoni	9/1:1	examination	[eksamineson]

APPENDIX C.

TALKING ABOUT TIME

Question:
Titaurirei kuti chii chamunoita zuva rese kubva pamunenge mamuka.
Tell us how you spend the day from the time you wake up.

Speaker #1. Rural female, over 35, grade 1, farmer (interview #119)
Ndinomuka kuseni ndotsvaira mumba, tosuka midziyo
I wake up in the morning and sweep in the house. We clean the plates.

tapedza kusuka midziyo totora mabhurangeti [mabranget] angu
When we finish cleaning the plates we take my blankets

ndobva yanika pawaya. Ndoshanda bhurakufesi [brakufes] rangu
and I hang them on the line and I work on my breakfast

ndodya, ndikapedza kudya bhurakufesi [burakufes] ndosuka midziyo. and eat. When I finish eating breakfast I clean the plates.

Ndikapedza kusuka midziyo ndaakuenda kutsime,
When I finish cleaning the plates I go to the well.

ndobva kutsime iro zuva rinenge richifamba,
From the well, time will be going, and

ndakushanda zvemasikati. *Ndikapedza*
I would start working for afternoon lunch. When I finish

kusvusvura masikiati ndaakuenda kugadheni [gaden].
eating in the afternoon I go to the garden.

Ndikabva kugadheni [gaden] ndouya
From the garden, I come

ndoshanda sadza remanheru, *radoka zuva.*
and work on sadza for the evening. The sun will be going down.

Speaker #2. Urban male, 36, form 4, industrial worker (interview #20)

Kazhinji-kazhinji ndinowanzomuka na[haf past faiv]
Mostly I usually get up at half past five.

ndozvosvika kubasa dzimwe nguva [faiv past seven]
I reach work sometimes at five past seven

kana [seven oklok] apo ndinenge ndichitanga basa
or seven o'clock and I start work

na[haf past seven]. Kazhinji kubasa tinoshanda dziri [nain awaz].
at half past seven. Mostly at work we work for nine hours.

Pa[nain awaz] apa pane tii [taim] and [lanč taim]. Tinoita tii [taim]
During the nine hours there is tea time and lunch time. We do tea time

na[haf past nain] kusvika na[twendi tu ten]. Tinoita [lanč] yedu
from half past nine to twenty to ten. We have our lunch

ne[haf twelv] tozopedza na[wan oklok]. Kumba kana
from half twelve and we finish at one o'clock. Home, if

pasina kuti ndinenge ndashanda ovhataimi [ovataim] ndogona kusvika
I don't work overtime I can get home

kuma[kota tu seven] kana kuti [seven oklok].
around quarter to seven or seven o'clock.

APPENDIX D

SAMPLE TRANSCRIPTS

Sample #1. Site: Chitungwiza, a suburb of Harare. Q: Interviewer. A: Urban male, age 28, two years of secondary school, employed as an air force storekeeper.

Q. *Munotaura chirudzii?*
What is your language?

A. *RwechiShona.*
Shona.

Q. *Munoita basa rei?*
What is your occupation?

A. *Ndiri [eyafos], ndiri ku[stoz].*
I am air force, I am at the stores.

Q. *Munosevenza kupi?*
Where do you work?

A. *Eee Zimbabwe [eyafos].*
Eee Zimbabwe Air Force.

Q. *Mune nguva yakadii?*
How long have you been there?

A. *Ndine [wan yia siks mans].*
I have one year six months.

Q. *Matambudziko api amunowana pakuenda kubasa?*
What problems do you encounter in getting to work?

A. *Aaa dambudziko handina rekuenda kubasa.*
Aaa, I don't have any problems in going to work.

Q. *Muoenda sei?*
How do you get there?

A. *Tino[provaidwa] ne[transpot].*
We are provided with transport.

Q. *Munoiwana kupi?*
How do you get it?

A. *Tine ma[bazi] eku[eyafos] iwayo atinokwira.*
We have air force buses that we take.

Q. *Munomuka nguva ipi magwanani muchienda kubasa?*
What time do you get up in the morning to go to work?

A. *Ndinomuka na[faiv] ndombogezageza ndozoona kuti ndadya chikafu here asi [bazi] ndozoriwana na[seven].*
I get up at five then I wash and eat food but I get a bus by seven.

Q. *Ko munosvika kumba nguvai manheru mabva kubasa?*
What time do you get home afer work in the evening?

A. It depends *kuti ndine ndapedza basa.*
It depends what time I finish work.

Q. *[Bat] kazhinji munosvika nguvai?*
But most times what time to do you get home?

A. *Ndowanzosvika na[siks].*
Usually I arrive at six.

Q. *Munganditaurira kuti kazhinji nguva yenyu zhinji inopera muchiitei kana muri kubasa.*
Can you tell me how you spend your time at work on a typical day?

A. *Kana tiri kubasa tinenge tichisevenza.*
When we are on the job, we are working.

Q. *Muchiita chii?*
What kind of work?

A. Ee *[infakt] tinenge tichi[ishuwa] ma[pats] endenge.*
In fact, we will issue some parts for airplanes.

Q. *Saka basa renyu rinonzi chinyi?*
What kind of job do you do?

A. *Basa rangu chairo ndere mu[stoz] munochengetwa ma[pats] endege.*
My job is in the stores where we keep some airplane parts.

Q. *Saka munosevenza sei?*
How do you work?

A. *A tinongoti tikasvika toona kuti taaku[ishuwa] ma[pats] here endenge* only that.
We only issue some parts for airplanes, only that.

Q. *Ko mabasa rudzii anosevenzwa wevamwe vamunosevenza wavo.*
What kinds of jobs do others do at the same place.

A. *Aa ma[dipatimenz] akati wandei!*
There are too many departments.

Q. *Saka mabasa api avanosevenza mukati imomo?*
What kind of jobs do they do?

A. *Kune ma[teknishenzi] kune chii nechii.* I can't say because they are too many.
Some are technicians and this and that. I can't say because they are too many.

Q. *Zvingakwanisika here kuti ee mungawana rimwe basa rakanaka remukati imomo mubasa nguva inotevere?*
Is there any possibility of your getting a better job at this place?

A. *Zvinokwanisika.*
I can manage.

Q. *Munoona sei?*
How do you see it?

A. *Zvino[dipenda] nokuti ndinenge ndaita sei. Fundo yangu yakaita sei* and all that. *Saka* so far *kana ndaane [kosi] yacho here yekuti ndinga[manija] here kuita [kosi] yacho* I can do it.
It depends on how I do it. And how my education is and all that. And so far if I have a course. If I can manage to have a course I can do it.

Q. *Saka pari zvino munoona sei?*
How do you see it now?

A. *Pari zvino aaa ndiri [rait].*
This time I am right.

Q. *Pakudii?*
On what?

A. *Haapakusevenza kwandiri kuita ndiri [rait].*
On my working I am right.

Q. *Mune [tii taim] kubasa?*
Do you have tea time at work?

A. *Iya, tine [tii taim].*
Yes we have tea time.

Q. *Nguvai?*
At what time?

A. Ten to twenty past.

Q. *Pa[tii taim] motaura nezve chii?*
What do you talk about at tea time?

A. *Pa[tii taim] haa [wel] ma[diskašanz]. anongoitika pa[tii taim] akawanda.*
At tea time haa well some discussions may happen at teatime, there are many.

Q. *Tingati ndeechi?*
Such as what?

A. *Akawanda.*
Too many.

Q. *Munotaura nezvechii? Tipei henyu [wan].*
What do you talk about. Give us one.

A. *Tino[diskaza] nenyaya yebasa kuti riri kufamba sei mabatirwo atirikuitwa* and so forth.
We discuss about work what is going on and what the company is doing and so forth.

Q. *Ko munodya [lanč]?*
Do you have lunch?

A. Lunch of course.

Q. *Munodyira kupi?*
Where do you eat?

A. *Haa todyira ipapo pabasa.*
Haa we eat at work.

Q. *Nodya nguvai?*
When do you eat?

A. From one o'clock ee quarter to one to half past one.

Q. *Saka iyo nguva iyo munenge muchitaura nezvei?*
What do you talk about at lunch.

A. *Aaa [wEl] pamwe unoziva unenge uri [wan] munhu uchingofungawo zvako zvaunenge uchizvifungira.*
Ah well sometimes you will be one person thinking of what you will be thinking about.

Q. *Zvakaita sechi?*
Such as what?

A. *Aa [wEl] ma[problemz] haaperi pamunhu.*
Aa well, problems will never end for a person.

Q. *Seei?*
Such as what?

A. *Seemari neupenyu hwevanhu.*
Like money in the life of a person.

Q. *Kana masvika kumba manheru mabva kubasa munoitei?*
What do you do when you get home in the evening.

A. *Ndabva kubasa, ndikasvika kumba manheru munoitei ndomboona kuti mu[gaden] mangu makamira sei, zvifuwo zvangu zvakamira sei?*
After work, when I get home in the evening I check in the garden, and how my animals look.

Q. *Muri kuzviona kuti muno muHarare mava ne[motokari] nema[rori] akawanda uyezve kuti mava nema[eksident] akawanda munozviona sei.*
You may have noticed there are more cars and lorries in Harare these days. Also there seem to be more accidents on the road.

A. *Azviripo zvinowanka.*
Yes, we can see.

Q. *Munozviona sei?*
How do you see it?

A. Ah, it means careless of driving *inenge ichitika.*
Ah, it means careless of driving will be taking place.

Q. *Imimi pachenyu makambowirwa ne[eksident] yemumugwagwa.*
You yourself, have you ever had an accident on the road.

A. *Kwete handisati.*
No, I never had one.

Q. *Matambudziko api amunowo pamagariro eupenyu hwenyu.*
What are some of the problems in every day living these days?

A. *Paupenyu hwangu ndinoona kuti [rent] inenge yakakwira yemba mari yandiri kutambira haisi kunyatsoita kuti ndinyatsoona kuti upenyu hwangu huri kufamba zvakanaka.*
In my life I can see that rent is too high for the house. The money I am being paid doesn't show me that my life is going better.

Q. *Ko munoona here kuti upenyu hwenyu hune budiriro makore mashanu ari kutevera?*
Do you expect that conditions will improve in the next five years for you?

A. *Hongu, ndikarwisa wekwese kwandinokwanisa ndikakwanisa kuita budirira yakanaka.*
Yes, if I fight very hard I will expect good conditions.

Q. *Munoona sei?*
How do you see it?

A. *Ndokunge ndaita zvinhu zvacho zvandine ndichida.*
If I do the things I want to do.

Q. *Zvakaita sechii?*
Such as what?

A. *Aa ndikadzokera ku[cikoro] futi kutoro* some other courses *ndingangokwanisa kubudirira.*
If I go back to school to have some other courses. I might expect good conditions.

Q. *Mune makore mangani?*
How old are you?

A. *Ndine [twentieit yez].*
I am twenty-eight years.

Q. *Makadzidza zvakadii?*
What is your level of school.

A. *Aa ndakangosvika [jei si] zvangu.*
I did J.C. (Junior Certificate) myself.

Q. *Munofunga munotaura chiRungu zvakadii?*
How well do you speak English?

A. *Ndingataura semunhu akati endei ku[čikoro]. Ndinokwanisa kubvunza nekupindura.*
I can speak as a person who went to school. I can ask and answer.

Q. Do you speak English at work at all?
A. Yes, I do.
Q. What languages have you spoken in the last two or three days?
A. In fact I at work I sometimes I speak English. At home I speak Shona.
Q. To whom did you speak?
A. To some other of my bosses.
Q. What language do you use when you speak to officials in the company?
A. English.

Q. *Munotengepi zvirauro zvenyu?*
Where do you buy your fish hooks?

A. *Zvirauro?* I am not a fisherman.
Fishhooks. I am not a fisherman.

Q. *Ko kune vanotenga zvirauro, vanotenga kupi?*
Those who buy, where do they buy?

A. *Vanotenga zvirauro handimboziva kuti vanotenga kupi.*
Those who buy I don't know where they buy.

Q. *Kana muri kumusha munotenga chingwa kupi?*
When you are at home where do you buy your bread?

A. *Kana tiri kumusha, ndotenga pama*-nearest shopping centre.
When we are at home, we buy at the nearest shopping centre.

Q. *Mune vana vakadii?*
How many children do you have?

A. *Ndine vana vaviri.*
I have two children.

Q. *Vari kuitei?*
What are they doing?

A. *Mumwe ari kuenda ku[krešˇ]. Mumwe hasati ave kuenda.*
One is going to the creche. One is not going.

Q. *I[holidei] ipi yamunonyanya kutenga mbatya dzenyu kupera kwegore?*
In which holiday do you buy your clothes at the end of the year.

A. *Iyo yekupera kwegore yacho iyoyo ye[krismas] yacho.*
The one at the end of the year Christmas.

Sample #2. Site: Mutoko, rural area northeast of Harare
Q: Interviewer, Fungai Dombo A: Female, 60, grade 2 education, farmer. Interview #mutfun2d

Q. *Titaurirei kuti chii chamunoita zuva rese kubva pamunenge mamuka?*
How do you spend the day from the time you wake up in the morning.

A. *Ndikamuka kuseni ndinomuka ndichidziisira vana vangu mvura vachienda ku[čikoro] ndopedza kubikira vana [brakfes] voenda ku[čikoro]. Ndakuenda ku[gadeni] kunodiridza. Ava masikati ndinenge ndabva ku[gadeni] kana kuma[tweruf] ndakuobikira vana vangu chikafu ndapedza ndodzokera futi ku[gadeni] kudiridza kana kuti ma[tomasi] angu aya ndinenge ndisina kupedza kudiridza. Kana kwakumanheru ndakubva ku[gadheni] manje ndakuenda kumba manje ndakunodziisira vana vangu mvura yekugeza zuva rinenge radokaka ndakunoika.*
When I wake up in the morning I prepare some warm water for my children who are going to school. When I am finished I cook breakfast for the children who go to school. Then I go to the garden which I irrigate. At noon I come back from the garden at twelve to cook food for my children. After that I go back again to the garden to water my tomatoes if I haven't finished watering. In the evening I leave the garden and go back home to warm some water for my children to wash and finally I cook.

Q. *Ko kana iri nguva yezhizha iwi chamunoita kubva pamunomuka kusvika rivire zvakare?*
When it is summer, how do you spend the day?

A. *Kana iri nguva yezhizha ndinomukira mumunda, kubata gejo kuseni, ndabata gejo kuseni ndopedza izvozvo ndoisa pasi gejo rangu ndoenda kunobikira vana [burakufesi] rekuti vaenda ku[čikoro]. Ndikapedza futi ipepa ndodzoka futi mumunda kana vana vangu vaenda ku[čikoro] ndakuyara ndichikanda muma[riji] mbeu yangu iyoyo. [Tweruf] dzakwana manje ndakuenda ku[ranji]. Kodya [ranji] yangu yemasikati. Vana vangu vabva ku[čikoro] ndakubata futi gejo tichitara futi ma[riji].*
When it is the growing season, I plough the field taking the plough. When I have finished I put down the plough and go to cook breakfast. for the children before they go to school. When I have finished I go back to the field when my children go to school and start planting my seed on the ridges. At twelve I leave for lunch, to eat my lunch at noon. When my children come back from school I take the plough again and we make ridges for planting until sunset.

Q. *Munofunga kuti GMB zvinoreva kuti chii?*
What do you think GMB means?

A. *Zvkutoti omera.*
I can't say what it means.

Q. *Pamunokwidza ma[saga] enyu mu[motokari] zviye izvi kuti muendese kuGMB, ko ma[kadi] enyu ekuGMB, munopa ani?*
After loading your sacks in the vehicle to whom do you give your GMB cards.?

A. *Tinopa muridzi we[motokari].*
We give them to the owner of the vehicle.

Q. *Semazuva ano muri kuona kuti dambudziko renjodzi mumigwagwa riri kuti nyanyei, mune njodzi yamakamboonawo here mumugwagwa ichiitika?*
These days you are seeing that the problem of road accidents is mounting. Have you ever seen an accident happening on the road?

A. *Ndakaiona.*
I have seen one.

Q. *Mungati tsanangudzire kuti zvakanga zvaita sei, kana kuti zvakaitika riinhi?*
Can you explain what happened and when it happened?

A. *Yakiitikira munzira takanga taatakutopera kufa ne[bazi] rakutoputika [viri].*
It occurred along the road. The wheel of the bus was about to burst.

Q. *Ndanzwa muchiti apa [bazi] rakanga rakuto putika [viri] saka zvichireva kuti rakazoputika here [viri] iroro.*
You have said the wheel of the bus was about to burst. Does that mean that the wheel did burst.

A. *Rakaputika [viri].*
The wheel did burst.

Q. *Hapana akakuwara here patsaona iyi.*
Wasn't anyone injured in this accident?

A. *Hapana akakuvara.*
No one was injured.

Q. *Kana kuti hama yenyu pane akamboonawo here achizokutaurira kuti ndaona tsaona yakati.*
Do you have a relative who saw and told you that he had seen an accident of this type?

A. *Yakaitika vari kuhondo.*
It happened when he was in the war.

Q. *Yakaitika vari muno here kana kuti pane kwavakanga vari?*
Did it happen while he was here or somewhere else?

A. *KuMozambique.*
In Mozambique.

Q. *Zvekuti vakabva vafa here kana kuti kukuvara.*
Did he die or was he only injured?

A. *Vakashaya mumwe akashika mumwe ndokukuvara.*
One died and the other one was injured.

Q. *Madambudziko api anoita kuti imi musava nekupenyu hwakanaka nemhuri yenyu.*
What problems affect your family's living standard?

A. *Zvinhu zvenetsa zviri kudhura zvinhu zvacho.*
Things are now very expensive.

Q. *Matsanangudza kuti zvinhu zviri kudhura ndiro rimwe dambudziko vamatipa imi semurimi hapana here rimwe, dambudziko ramuri kuona kunze kwekudhura kwezhinhu.*
Besides the problem that things are now expensive, don't you have other problems which you face in your farming career?

A. *Zvinhu zviri kudhuraka [plazi] matambudziko atiri kuona ari kuti shopa muno umu kuvaka kuri kuti netsa.*
Things are very expensive plus the problems we are facing are troubles in building.

Q. *Mataura kuti kuvaka apa hamuna kunyatsotsanangudza kuti kuvaka kwacho dambudziko vacho rinenge riri rei.*
You have not clarified the building problems you face.

A. *Tiri kushaya zvidhinha kwatiri kuzvitora zviri kunetsa zvinotengwa kumapurazi uko zvidhina tobhadhara motokari uchinzwa motokari iri kuita [fifti] [doṛa]. kuenda kwaMakosa [ṛodi] jecha [siksti]. Zvino kana kuri kuti tizobudirira muno umu hatizi kuzobudirira nokuti ndingave ne[siksti] [doṛazi] nditenge jecha nditoromese zvidhinha, saka dambudziko riri muno umu ndere zvidhinha dai mune zvidhinha [beta], unogona kuti untenga ma[do fṛem] ako wovaka.*
We lack bricks. Getting them is a problem because the bricks are bought from farms and we have to pay for the vehicle. You understand that a vehicle costs fifty dollars to go on the Makosa road, sand is sixty. Now with this problem there an't be any progress, it takes sixty dollars. to buy sand and get bricks, so the problem is that if bricks were available it would be better, you could buy door frames for building.

Q. *Munoona kujeka kweupenyu here pamakore mashanu anotevera?*
Do you predict an improvement in life in the next five years?

A. *Huchajeka chizvo.*
It will improve greatly.

Q. *Munganditsanangudzira zvamuri kuona kuti hupenyu huchajeka.*
Can you explain why life will improve?

A. *Tichaona kuti upenyu hwedu huchanaka nekuti vaMugabe vari kuti yamura pano apa kana kuti chikafu, kana isusu varimi tinopihwa [čikweŗeti], chekuti kupera kwegore rese unozobhadhara kana waendesa zvirimwa zvako kuGMB.*
We can see a better life because Mr. Mugabe is helping us right now. We farmers are now being granted credit which after selling our crops we can repay and this is instrumental to our life becoming better.

Q. *Inguva ipi mugore yamunowanzotengera mhuri yenyu mbatya itsva?*
In what time of the year do you normally buy your family new clothes?

A. *Tinonyanya kutenga tichinjisa ma[čeki].*
We normally buy them after getting our checks.

Q. *[čeki] idzi munguva yamundziwana here kana kuti munongodziwana nguva yese yese.*
Do you have a fixed time when you get your checks or is it at any time of the year.

A. *Tine nguva yatinodziwana iyo ino nguva kubva [jurai] kusvika [agasti] [čeki] dzamira.*
We have a time we get them. It is the time from July. to August we wait for the checks.

Q. *Ko chingwa chenyu munotenga kupi?*
Where do you buy your bread?

A. *Tinotenga paMutondo.*
We buy it at Mutondo.

Q. *Toti matenga chingwa chenyu. Munochitakurira pai kana muchinge machitenga chingwa chenyu?*
Say you have bought your bread. In what do you carry it after you have bought your bread?

A. *Mu[pepa beg].*
In a paper bag.

Q. *Mune vana vadiki here vari pamusoro pemakore manomwe vamunogara navo.*
Do you have children over seven who live with you?

A. *Ndinavo.*
I have them.

Q. *Vari kuitei pari zvino?*
What are they doing around here?

A. *Ndionovo wava ava vanovaka ma[gadeni].*
They do garden fencing.

Q. *Mungati tsangudzire kuti mwana wega-wega ari mu[buku] ripi?*
Can you tell in what book each one of them is?

A. *Mumwe ari [gred seven], mumwe [gred siks], mumwe [gred faiv], mumwe [gred wan].*
One is in grade seven, another grade six, another grade five and the other in grade one.

Q. *Ko kana muchiwonga murwizi chii chamunenge muchiunga?*
What do you pan for in the river?

A. *Tinowonga [gorodi].*
We pan for gold.

Q. *Mune makore mangani okuzvarwa?*
How old are you?

A. *Ndingoti [siksti] angasvike.*
I am around sixty.

Q. *Makadzidza zvakadii?*
What is your level of education?

A. *[Gred tu].*
Grade two.

Q. *Ko chiRungu munokwanisa kutaura here?*
Can you speak English?

A. *Handigone.*
No, I can't.

Q. *PachiRungu apa pana vamwe vakaita [gred tu], vanogona kunzwa chiRungu asi vasingakwanise kutaura poita vamwe vanogona kutaura asi vasingkwanise kunyora. Imi munogona kuchinzwa here asi musingakwanise kutaura.*
Some people who ended in grade two can understand English but not speak and others can speak but cannot write in English. Do you understand but not speak it.

A. *Kana nekutochinzwa hati chinzwe tiri kutochema chaizvo kuti dai vaMugabe vandoisa [čikoro].*
I can't even understand. We are right now appealing to Mr.Mugabe to establish a school.

Q. *Ko ndikakubvunzi nechiRungu kuti* how old are you. *mungapindure muchiti chii?*
If I say "how old are you" how would you answer?

A. *Handigone mwanangu.*
I can't answer.

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