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Code-switching and Borrowing in a Finnish-English Bilingual
Situation

by

Susan M. Wheeler

A thesis
presented to the University of Ottawa
in fulfillment of the
thesis requirement for the degree of
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in
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Susan M. Wheeler, Ottawa, Canada, 1987.

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ABSTRACT

The study of a typologically different language pair such as Finnish and English can contribute to the understanding of the bilingual speech phenomena of code-switching and borrowing. Very little true code-switching was found to occur in this corpus but that which did occur obeyed the Equivalence Constraint and the Free Morpheme Constraint (Poplack 1980, Sankoff and Poplack 1980).

The majority of the English-origin material was found to be single-nouns which showed a strong tendency to be case-marked (79%) suggesting that they are nonce borrowings rather than code-switches violating the Equivalence Constraint.

Several factors were shown to play a role in the variability of case-marking, these being: 1) functional flagging, which occurred in almost complementary distribution with case-marking, 2) the degree of boundness of a particular case and 3) the attitudes and backgrounds of the individual speakers. The nonce loan hypothesis (Sankoff, Poplack and Vanniarajan 1986) seems to account for the single English-origin items in these Finnish-English data.

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Chapter I

INTRODUCTION/BACKGROUND

1.1 The Literature

Borrowing and code-switching are two phenomena commonly encountered in language contact situations. Haugen placed code-switching and borrowing at either end of a continuum with "interference" or "overlapping of two languages" (1956:40) falling in between. Although he characterizes code-switching as the use of one language in completely unintegrated form occurring within a stretch of another language and borrowing, by contrast, as the integration of a form into the language, it is nonetheless not always possible to clearly identify an occurrence as one or the other. As a result these two phenomena have often been confounded, which has only created complications for their analysis.

In this thesis I will examine a corpus of Finnish-English bilingual speech and in particular, incorporations from English contained therein, with a view to establishing their status as loanwords or code-switches. Finnish is a non-Indo-European language which, unlike English, is highly inflected. While English makes extensive use of prepositions, Finnish uses case-marking together with postpositions.¹ Although word order in Finnish is basically SVO as it is in English, Finnish allows for considerable variation in word order. These basic differences of language typology make Finnish and English an ideal pair for the study of code-switching.

¹ Finnish also has a small number of prepositions.

1.1.1 Code-Switching

Code-switching has been defined as "the alternation of two languages within a single discourse, sentence or constituent" (Poplack 1980:583). A code-switch is a segment of speech in one language which occurs within the larger context of another language and is not integrated into the morphological or syntactic patterns of that language. Different types of code-switching include 1) intra-sentential code-switching which occurs within a sentence and therefore must conform to the grammatical rules of both languages, 2) sentential switching, consisting of an entire sentence (or clause), while 3) tag switches are "freely moveable constituents which may be inserted almost anywhere in the sentence without fear of violating any grammatical rule" (Poplack 1980:589). An example of intra-sentential code-switching found in the corpus on which this thesis is based is found in (1):²³

- 1). Siellâ oli tuota- oli tuota- kâñilô
 there was um was um midwife-N

 joka oli head of the district who has not
 who was

 practised for twenty years and there she

 was sillâ oli se vauva kâdessâ
 it-AD was it baby-N arm-IN

 there was the midwife who was head of
 the district who has not practised
 for twenty years and there she was,
 she had the baby in her arms.
 (19b-326)

and a tag switch in (2):

-
- 2 The umlaut which should appear on the letters *a* and *o* appears here as a circumflex: *â* and *ô*.
- 3 The numerical code following each example refers to 1) the tape number and the side of the tape and 2) to the tape recorder counter number. The tape number also provides identification of the speaker.

2) Mutta en mā viittinyt, no way.
but not-I I bothered

But I'm not bothered, no way.
(9b-134)

Code-switching like borrowing is governed by non-linguistic as well as linguistic factors. Until quite recently the literature on code-switching concentrated on the former.

1.1.1.1 Pragmatic and Social Constraints

It has been proposed that social and pragmatic constraints affect the occurrence of code-switching. Gumperz and Hernandez-Chavez (1975), basing their work on the speech of Mexican American speakers of Spanish and English, suggested that code-switching is dependent on social factors such as ethnic identity, age, sex, degree of solidarity or confidentiality etc. Valdés-Fallis (1976) found that code-switching was used to serve rhetorical or stylistic purposes. Gumperz (1976) suggested that code-switching is constrained by social and pragmatic factors. He claimed that the juxtaposition of the two codes signals information which is interpreted according to the speakers' shared background and social presuppositions. He suggested that features in the context or the message itself can favour the switching process; when there is a violation of the speaker's feelings for what on syntactic or semantic grounds is a single unit, code-switching is blocked. Lance (1975) also suggested that social situation and ethnic identity determine whether code-switching will occur. Timm (1975) also studied code-switching by Mexican Americans. She proposed that a switch from English to Spanish indicates feelings such as loyalty, respect, affection etc. and that such a switch is more likely when the topic deals with Mexican culture. Conversely, a switch to English is indicative of feelings of displeasure, fear, aggression etc. or marks an Anglo-American topic of conversation. The suggestion that functional factors play a role has also been supported by Poplack (1981) who found that the ethnic identity of the interlocutor

affected the occurrence of code-switching as did the formality of the speech situation. Specifically, she found that the speaker would be more likely to code-switch if the interlocutor was an in-group member and in an informal speech situation.

1.1.1.2 Bilingual Ability of Speakers

Early studies in bilingualism were often based on the assumption that bilingual speech behaviour, particularly code-switching, was random and reflected low linguistic competence on the part of speakers. With additional research it has become clear that this is not the case.

Gumperz (1976) suggests that the reason speakers code-switch is not due to lack of linguistic competence and Pfaff (1979) similarly suggests that speakers who code-switch have to be competent in both languages. Poplack (1980) provides evidence suggesting that speakers must be highly skilled in both languages in order to code-switch successfully.

1.1.1.3 Syntactic Constraints

It has been suggested that there are certain linguistic constraints which govern switching between one code and another.

In many cases, the linguistic constraints which have been proposed have been based on acceptability judgements elicited from bilingual speakers. Timm (1975) took sentences from a bilingual short story and from a tape-recorded conversation with a Spanish-English bilingual and asked other speakers to judge them for acceptability in order to test her hypothesis regarding syntactic constraints on code-switching. Gumperz (1976), who also hoped to determine whether syntactic constraints were operating on code-switching, isolated passages from natural speech and used them as a frame into which he substituted various elements. These examples were presented in sets and subjects were asked to rank them in order of appropriateness. Gingràs (1974) also eli-

cited acceptability judgements of code-switched sentences. He noted that since code-switching is highly stigmatized, his method of asking his subjects "Does this sentence sound like something you might have heard?" rather than "Is this a grammatical (or acceptable) sentence?" is a preferable one. It seems unlikely however, that rephrasing the question could make a significant difference. As Poplack (1980:585) points out, the very fact that code-switching is sociolinguistically stigmatized is reason to consider acceptability judgements to be suspect. Therefore, the logical approach would have to be to base constraints on actual data from natural speech.

Timm (1975) concluded that there are several specific surface structure constraints on Spanish-English code-switching - for example, a code-switch cannot occur between a pronominal subject or object and a finite verb. She suggests that these constraints are both "necessary and sufficient for the production of acceptable Spanish-English sentences" (p.477). Gingràs (1974) suggested that there are a set of rules or constraints which the speaker must be in control of in order to code-switch effectively. Differential acceptability judgements by two groups of Chicano speakers led Gingràs to suggest that one group (childhood bilinguals) had internalized the necessary rules which had not yet been learned by the second group (who had learned their second language as adults). He proposed that when a transformational movement rule of one language is applied to a structure containing lexical items of the other language, movement is blocked. Consequently, an English adjective, for example, would be prevented from being postposed to a Spanish noun. Gumperz (1976) also proposed specific syntactic constraints on code-switching as did Pfaff (1979). Gumperz claims for example, that "When a relative clause is embedded in a subject phrase, this phrase cannot stand alone, it must be followed by a personal pronoun." (Gumperz 1976:33). A constraint of this type which is restricted to a particular construction is too specific to be applicable across language pairs. Pfaff (1979) stated that "surface structures common to both

language are favored for switches" (1979:314) - a notion which is included in Poplack's Equivalence Constraint.

Poplack (1980) proposed that the Equivalence Constraint and the Free Morpheme Constraint could account for possible code-switch points. Some of the specific constraints previously proposed are, in fact, subsumed by these two constraints which are more general yet able to account for all code-switching examples in the corpus she studied.

The Equivalence Constraint states that code-switches will occur at certain switch points such that the juxtaposition of elements of the two languages will not cause a violation of a syntactic rule of either language. That is, a code-switch can only occur at a point in the sentence where the order of constituents on either side of the switch is grammatical by both L1 and L2 standards. So, for example, in a Spanish-English context, a code-switch cannot occur between an adjective and a noun. Since in English the adjective precedes the noun while in Spanish it follows the noun, a non-equivalent site is created and any possible combination of noun and adjective which is not completely English or completely Spanish will be incompatible with the rules of one of the two languages. Similarly, a code-switch could not occur between an English preposition and a Finnish noun (except in a few instances). Because both English and Finnish prepose the adjective to the noun, a code-switch between an English adjective and a Finnish noun or vice versa would be acceptable since it would not violate the rule of adjective placement in either language.

According to the Free Morpheme Constraint, a switch may not occur between a lexical item and a bound morpheme unless that lexical item is phonologically integrated into the language of the bound morpheme. In the latter case the word is behaving like a borrowing rather than a code-switch; this will be discussed further below.

While one might expect that non-fluent bilinguals would be unable to produce code-switches without violating these constraints, Poplack found that all speakers, balanced bilinguals and non-fluent bilinguals alike, adhered to the Free Morpheme Constraint and the Equivalence Constraint (1980, 1981:12). Sentential code-switching, because it involves alternating whole sentences does not cause problems for the Equivalence Constraint but it does require skill in L2 on the part of the speaker. Intrasentential switching creates difficulties for the speaker if the Equivalence Constraint is to be honoured and so demands a high level of competence in both languages. Tag switches, because they do not affect the syntax of the sentence can be successfully used even by speakers with low L2 competence. In her study of Puerto Rican Spanish in New York, Poplack (1980) showed that the more fluent bilingual speakers used more intrasentential and sentential switches while those speakers with lower competence in English tended to use "emblematic" switching (ie. tag switches and single word switches) which required less knowledge of the grammar of their L2.⁴ In other words those speakers with lower competence in L2, instead of trying to produce sentential and intrasentential switches and possibly violating the syntactic constraints in the process, limited themselves to tags and interjections and other single word switches which can be inserted almost anywhere without jeopardizing grammaticality.

It was also found (Poplack 1980:589) that among balanced bilinguals who were able to engage in all types of switching that tag switching was more frequent when the interlocutor was not a member of the ethnic group while in-group membership favoured sentential and intra-sentential code-switching. Poplack found that the code-switching examples in her study were extremely smooth with very few hesitations, pauses or false starts. The fact that the code-switches were neither repeated nor were they themselves repetitions and occurred without metalinguistic commentary suggests that the speakers

⁴ Tag and single noun switches are often "ethnically loaded" and tend not to be easily translatable.

were at some level unaware that they were switching from one language to the other. As will be seen, the situation is very different in the putative Finnish-English code-switching examples I analyse below.

Poplack (1980) and Sankoff and Poplack (1980) showed that the Equivalence Constraint applied virtually categorically to Spanish-English code-switching data. They also state that both the Equivalence Constraint and the Free Morpheme Constraint have been verified for a number of language pairs (all involving Indo-European languages). Given the structural similarities of Spanish and English and the other languages involved, the possibility remains that the Equivalence Constraint applies only to similar language pairs. In the case of two languages with differing structures - for example an SVO language and an SOV language - the Equivalence Constraint would impose much stricter limitations on possible code-switch sites than it would on two typologically similar languages.

Sankoff and Poplack (1980) suggested that further research involving a) English and a highly inflected or agglutinative language and b) English and a language of contrasting word order would give a clearer indication of how the free morpheme constraint and the Equivalence Constraint respectively would operate on more diverse language pairs. The Finnish language with its highly inflected nominal and verbal systems fulfills the morphological requirement in that its complex system of case-marking differs markedly from English, and to a lesser extent also fulfils the syntactic element given its variable SVO word order. As will be seen in Chapter 3, Finnish and English are structurally quite different. Because Finnish is mainly postpositional, while English uses only prepositions, the two languages differ in their surface structures in the vicinity of a Finnish postpositional and an English prepositional construction. As a result, the Equivalence Constraint would prohibit code-switching after an English preposition or before a Finnish postposition. Similarly, in a structure where an English prepositional

phrase corresponds to a case-marked Finnish noun, the Equivalence Constraint would prohibit a code-switch between an English preposition and a Finnish noun.

The above discussion of code-switching, while it includes sentential, intrasentential and tag switching, refers only to those cases which are unambiguous examples of code-switching. I turn next to the subject of borrowing.

1.1.2 Borrowing

While code-switching entails alternating the use of the two languages in discourse, borrowing involves using elements from both languages simultaneously. Unlike the case of code-switching, it is not always possible to ascertain whether a lexical item is an unambiguous borrowing. Here I discuss single lexical items inserted in other-language discourse, while in the above discussion of code-switching I dealt with longer constituents.

The Free Morpheme Constraint does not allow a code-switch between a single lexical item and a bound morpheme. However, if the word is phonologically, morphologically and syntactically integrated into the recipient language then it is behaving as a native language element (Poplack 1980:584). Indeed if the word in question is completely integrated on all levels and is widely used and also accepted in the community it is usually considered a loanword that for all intents and purposes has the status of a native word. This status is however only achieved over a period of time.

The borrowing process is a gradual one which sees a foreign linguistic item slowly integrated into the borrowing language until it is no longer perceived as a non-native form. While undergoing this process the lexical item in question is not always readily identifiable as a loanword; when the process is complete the loanword has all the characteristics of a native word of the recipient language.

Before a borrowing can function as a native word it must be integrated into the recipient language - it will be inflected with any affixes which a native word would car-

ry; in languages with grammatical gender it will undergo gender assignment, in languages with case marking, it will be inflected for case.

Phonological integration by the speakers has also been seen as a determining factor (Haugen 1956). However this is often an unreliable criterion since a speaker's linguistic competence - or lack of it - may not allow the intended result. If an individual speaker's bilingual abilities are such that he can only reproduce a borrowed word with a "foreign accent" then it is not possible to make a distinction between borrowing and code-switching on the basis of phonology alone (Poplack 1980).

As with code-switching, non-linguistic as well as linguistic factors have an impact on borrowing. One social criterion which has been used for determining if an L2-origin word in a segment of L1 speech is in fact a loanword, is whether or not it is a word which is well-established and widely used in the speech community. When a word does recur and is frequently used by many members of the community it can be assumed to be a true loanword.

Hasselmo (1970) suggests that if a borrowed item is widely accepted in the speech community it may be considered a loanword while a word that is not widely-accepted would be considered a code-switch.

Mackey (1970) suggested that evidence for integration can be drawn from tests of availability along with acceptability and translatability tests earlier proposed by Hasselmo (1969). Thus in a situation where a speaker lists an L2 word for a particular item or concept, rates this word high on an acceptability test and has difficulty or is unable to find a suitable L1 equivalent, the word is probably well integrated into the recipient language.

On the basis of observations made by themselves and others, Poplack and Sankoff (1984) proposed four indicators for determining loanword integration. They suggest that a borrowing can be considered to be a well established loanword if: 1) it occurs

frequently and is used by many individuals, 2) it displaces a native term for the same concept, 3) it complies with phonological, morphological and syntactic patterns of the recipient language, 4) it is judged by native speakers to be an acceptable term regardless of their knowledge of its origins. Poplack and Sankoff also point out that not all of the above criteria will necessarily be met for every item that can be considered a loanword and that in some circumstances a particular criterion may not really be valid (Poplack and Sankoff 1984:8-9). For example, frequency can be a misleading criterion since a function word for instance may occur frequently within code-switches. Many words will not appear frequently simply because they are restricted to a narrow subject area. Limited phonological competence on the part of a speaker in the donor language may result in forms which are incompletely integrated phonologically. Synonym displacement is a valid criterion only in instances where a single word in one language replaces a single word in the other and where this is clearly demonstrable. If either language is stigmatized, acceptability judgements are questionable. It has also been suggested that having bilingual speakers make judgements is not necessarily a reliable means of establishing loanword status under any circumstances.

However, these criteria do appear to capture in a broad sense the process of loanword integration, and indeed, Poplack and Sankoff found that frequency of use and phonological and morphological integration are indicators of assimilation of loanwords. They also found that those concepts for which mostly English designations occurred (but with the fewest different English designations) were most highly integrated into the recipient language. Nonetheless, there are many cases where determination of the status of a donor language item is difficult if not impossible. If a single word from one language occurs in a stretch of discourse of a second language and is not recognizable as a loanword on the basis of recurrence and widespread use, it may be suspected of being a case of code-switching or other linguistic interference and not a borrowing at

all. If the word does not require an article for example (in the case of a noun) or some verbal or nominal affix, it becomes very difficult to establish whether it is borrowing or code-switching which is taking place. Thus, the problem lies mainly with single-word items since an item consisting of more than a single word can be identified as a code-switch on the basis of morphology and syntax.

The criterion of frequency cannot always be established when dealing with natural speech data. In order to measure frequency one must know not only the number of times an item occurred but also the number of times it could have occurred but did not. Thus it would be necessary to identify every instance of every possible semantic equivalent of the word in question and to determine the proportion used in each of the two languages. Clearly the size of such an undertaking is prohibitive even when dealing with a relatively small corpus. An additional difficulty is that with free speech data, a given item may never recur from speaker to speaker, particularly if that word is restricted to a little-discussed subject.

1.1.3 Nonce Loans

Difficulties in determining loanword status arise when the English-origin form is not widespread, recurring or accepted in the community. Since there is no a priori way of identifying a single instance of a non-established, non-recurring English-origin word as a loanword, it has been suggested (Sankoff, Poplack and Vanniarajan 1986) that its status may be determined by showing on linguistic grounds that it behaves like an established loanword or conversely that it does not behave like a code-switch.

Poplack (1985) identified a unique stress pattern used by Ottawa-Hull francophones which operates only on English-origin words in French discourse. The function of this usage appeared to be to avoid code-switching to English by resorting to nonce borrowings which were given stress patterns that identify the English origin of the form to the interlocutor. It may also serve to indicate that the speaker is aware of using a non-accepted lexical item.

Another means of incorporating borrowed words is the use of a pro-verb which occurs in conjunction with a borrowed untensed verb. The pro-verb carries the tense and aspect markers and any other inflections. Sankoff, Poplack and Vanniarajan (1986) found this to occur in Tamil in the form of the pro-verb *pannu* 'do' which is postposed to the bare English infinitive. Similar usage of Spanish *hacer* 'make, do' with the English infinitive was reported by Pfaff (1979) for Chicano Spanish. These forms (which never carry any inflection themselves) when juxtaposed with other-language forms identify them as borrowings rather than code-switches. However, it is frequently the case that there are no such indicators which provide an easy means of identifying words as borrowed items. For example, a non-recurring lone lexical item which requires no inflection in either language cannot be readily identified as a borrowing, as seen in (3) below.⁵

3a) Kato, nursing-0 on niin- niin rankkaa.
See is so so heavy-P.

Look, nursing is so- so heavy.
(10b-244)

3b) Niillâ oli iso business-0
they-AD. was big-N.

They had a big business.
(9b-260)

It has been suggested (Poplack 1985) that certain occurrences of L1 speech in an L2 sequence which have been assumed to be code-switches on the basis that they were not widely accepted loanwords, may actually be "momentary" or "nonce" borrowings.

Sankoff, Poplack and Vanniarajan (1986) found that nonce borrowings used by Tamil bilinguals behaved much as widespread, recurring borrowings do, which in turn behave like native lexical material, insofar as all are syntactically and morphologically

⁵ The symbol -0 after a noun refers to zero case-marking. A key to the abbreviations for case markers used in the examples can be found in Appendix I.

integrated into the recipient language. These in turn could be distinguished from other-language material, which without exception, showed only characteristics of the language in question. Because Tamil is an SOV language as opposed to English which is an SVO language, the Equivalence Constraint restricts code-switching such that no switch should occur between a verb and an object. Therefore any English-origin noun which occurs in a direct object position in a stretch of Tamil discourse must either constitute a violation of English word order and hence of the Equivalence Constraint or else be a borrowing.

According to Tamil morphology a direct object carries an accusative case marker, therefore an English-origin noun in direct object position would also have to be inflected with that case marker if it were a loanword.

Sankoff, Poplack and Vanniarajan's database contains a large number of English-origin direct objects preceding Tamil verbs and a smaller number of Tamil-origin direct objects following English verbs. The verb is always clearly English or clearly Tamil with respect to the root and the inflections with the exception of cases with a Tamil pro-verb, which were considered to be loanwords from English into Tamil.

Not all English-origin nouns were found to carry the accusative case-marker; however accusative case marking is also variable in Tamil. Quantitative analysis showed that distribution of case-marking on English-origin nouns reflected very closely that of Tamil nouns, thus supporting the claim that they are in fact loanwords.

1.1.4 Code-switching and borrowing in differing communities

In comparing code-switching behaviour in two different communities, Poplack (1985) showed that French Canadians in the Ottawa-Hull region and Puerto Ricans in New York City follow quite different patterns in their use of code-switching.

Studies of Spanish-English code-switching in the Puerto Rican community in New York revealed community-wide regularities (Poplack 1980, Sankoff and Poplack 1980).

Although, as mentioned above, the degree of bilingual competence varied among individuals, the speakers in this community were found to be highly skilled at code-switching. Their code-switches were characterized by smooth transitions and unmarked by repetitions or metalinguistic commentary. Switches were found to consist of constituents larger than single nouns and they were not restricted to ethnically bound words or words lacking a Spanish equivalent. Code-switch types were distributed according to the speakers' bilingual ability such that those with the greatest bilingual competence switched mainly within the sentence, and those with the lowest competence used mainly tag switches. Violations of the Equivalence Constraint were very few, amounting to less than 1% of the total (Poplack 1985:5-6).

Code-switching was found to be a norm of linguistic interaction much like monolingual Spanish or English usage. Furthermore the speakers considered this mode of speaking to be an important and defining part of their ethnic identity. Poplack concluded that "code-switching is itself a norm in specific speech situations which exist in stable bilingual communities" (1980:588). Lexical influences in the form of English loanwords were also found to exist, their status as loanwords being judged on the basis of the indicators discussed above.

In her study of five neighbourhoods in Ottawa-Hull, Poplack was in some respects dealing with two communities: Ottawa where French is a minority language and Hull where it is the majority (and official) language. Although differences in bilingual behaviour were found between Ottawa and Hull, some general findings held true across the larger community.

For one thing, three to four times more code-switches occurred in the speech of the minority French speakers than in those of the majority speakers. In general however, very little "true" code-switching occurred at all, and intrasentential switching was largely confined to the Ottawa speakers. This despite the fact that speakers of varying bilingual abilities were included in the sample.

More important, the code-switching which did occur was very different from the "smooth" switching found in Puerto Rican Spanish and which Poplack (1980) showed to have no local discourse functions. Instead, the Ottawa-Hull speakers used other types of code-switching strategies which acted to break up the flow of discourse. By means of various strategies such as metalinguistic commentary, hesitations, false starts, repetitions, translations and explanations and English bracketing, speakers were found to effectively draw attention to their code-switches. It appeared that they use the contrast between the two languages to indicate their awareness of their use of English in French discourse (Poplack 1985). Furthermore, Poplack claimed that it becomes very difficult to determine whether the Equivalence Constraint is being respected when the code-switch boundaries are obscured by flagging devices which serve to eliminate the need for grammaticality in the vicinity of those boundaries. Even when the grammaticality constraints are respected (as they basically are), this is a trivial consequence of the special purposes code-switching serves in these communities.

In comparing the French-English situation of Ottawa-Hull with the Puerto-Rican Spanish of New York, the differences in code-switching patterns could not be accounted for by linguistic differences between the two language pairs as they are relatively few.

The reasons for differences in code-switching patterns between the Puerto Rican Spanish and Ottawa-Hull French speakers despite some apparent situational similarities is unclear. Poplack (1985) hypothesized that they might be a result of different techniques of data elicitation (participant observation for Puerto Rican Spanish and random sampling for Ottawa-Hull French) since the lack of familiarity by a non-group member would not supply optimum conditions for code-switching. However she pointed out that there is no hard evidence to suggest that intra-sentential code-switching is ever the norm in Ottawa-Hull.

It was hypothesized that the code-switching differences could be attributed to variances in attitudes arising from social, political and historical differences, although on the surface the two communities appear very similar.

A certain amount of linguistic insecurity was present among the Ottawa-Hull speakers regarding the quality of their French (except for speakers from the most upper class neighbourhood). The Ottawa speakers, who were the ones who engaged in the most switching, were also more aware of code-switching and more neutral in their attitude towards it. They also felt that French was of less practical value than English and claimed that English words and expressions were sometimes more concise or expressive than the French equivalent. This latter point was not true of the Puerto Rican Spanish speakers who did not see one language as being better suited to specific purposes or more able to express particular concepts and for whom code-switching was a normal corollary of their bilingualism. In any case apart from the Ottawa-Hull dichotomy, which Poplack also explained on the basis of social, political and historical differences, the patterns which did emerge were consistent across the community.

The fact that two bilingual communities show such striking differences in their communicative code-switching patterns despite community and typological similarities suggests that these are community-specific.

A great deal of incorporation of single English-origin lexical items also occurred (integrated, unintegrated; established and momentary borrowings). However, because of the typological similarities between French and English, aside from the clear-cut cases of established and/or lexically integrated loanwords, the status of many of these was difficult to determine (at least on an individual basis; but see Poplack, Sankoff and Miller (1986) for quantitative determination of their status). It is in this context that the present research is inserted. By examining a typologically different language pair such as Finnish and English, where the Equivalence Constraint makes strong

claims about where code-switching should not occur, and where obligatory case-marking provides a clear morphological criterion for determining the integration of most lone lexical items, I hope to shed light on 1) the applicability of the Equivalence Constraint to typologically different language pairs, and 2) the mechanisms of borrowing, whether nonce or established. Through empirical examination of yet another bilingual community, I will compare my findings with those of the Tamil-English study, and seek to establish whether typologically different language pairs share certain strategies for incorporating other-language material or whether this is solely determined on an individual or community basis.

1.1.5 Finnish and English in Contact in North America

As early as the 1930's scholars were publishing articles on the Finnish language in North America and the contact phenomena that arose as a result of its proximity to English (e.g. Kolhmainen 1937, Mencken 1955). As was the case with many immigrant languages, the authors of such articles were often primarily concerned with the threat of language loss and the importance of preserving the "purity" of the language. These early works were mainly descriptive and anecdotal, sometimes inaccurate (though in some cases insightful), and sometimes with a prescriptive bias; in fact this has generally been the case in studies of bilingualism with the exception of the seminal work of Weinreich (1953) and relatively recent work. The focus has generally been on lexical borrowings and their taxonomy. There was, in addition, some mention of the effect of English interference on Finnish syntactic structures as early as 1949 (Sahlman 1949:18).

More recent works by Virtaranta (1976, 1981) and Martin (1981) have also concentrated on loanwords in "Finglish".⁶ The discussion is generally limited to borrowing

⁶ The term "Finglish" is commonly used within the Finnish community to refer to the Finnish language spoken in North America and is characterized by the use of English loanwords. According to Mencken (1955) the term was coined by Professor Nisonen of Suomi College in Hancock, Michigan. As is the case of "Spanglish",

with no mention of code-switching or other bilingual phenomena and no distinction is made between borrowings by individual speakers and borrowings on a community level (although it is only relatively recently that the importance of this distinction has been recognized). The tone tends to be anecdotal with ample speculation as to the motivation for borrowing particular words or classes of words.

Virtaranta (1981) provides a rich source of examples of loanwords but he makes no use of quantitative analysis although his corpus consists of approximately 400 hours of recordings of American-Finnish speakers, most of them elderly first generation speakers.⁷

Virtaranta has a particular interest in the native Finnish dialects of the North American Finns and how those dialects may have affected the phonological shape of loanwords and the sometimes differing phonological representations of the same loanword. He is also interested in how the study of dialect differences of North American Finns may shed light on Finnish dialects as they were spoken at the turn of the century in Finland.

Martin (1981) does not attempt a systematic study of "Finglish" but presents a general overview of the contact phenomena that she has observed in the speech of Thunder Bay Finns.⁸ While these phenomena are mainly restricted to borrowing, there is some mention of syntactic anomalies. Like Virtaranta, Martin discusses possible motivations for adopting certain loanwords that occur, as well as language maintenance and language shift (Pölkki 1976, Martin 1978).

Swinglish", "franglais" etc. These terms have never been rigorously defined and have little linguistic validity.

⁷ Virtaranta, like the others mentioned here, collected his data in areas of the United States and Canada where there have been high concentrations of Finnish speakers since the early part of this century. Many of these communities are semi-rural and most are well-established and tightly-knit.

⁸ Thunder Bay, Ontario has a large, active and long-standing Finnish community with several immigrant generations.

Karttunen and Moore (1974), working with a subsample of Virtaranta's data, present a set of "word-formation and pronunciation rules" which they found to operate on English loanwords. While their 14 principles (which include principles of consonant cluster simplification, stress adjustment, gemination, deaffrication etc.) describe many aspects of phonological integration, they are not able to predict the shape that a given English word will take when borrowed into Finnish. They suggest that North American Finnish speakers use "word-formation rules that operate internally in native Finnish grammar and others by which loan vocabulary, especially Swedish, has been shaped in the past."

As a rule the emphasis in the discussion of Finnish language contact has been on phonology and the lexicon with a few exceptions.

Larmouth (1974), for example, looks at the syntactic structures of Finnish sentences produced by four generations of speakers in Minnesota. He suggests that interference from English, mainly due to certain parallel sentence structures, has resulted in changes in the use of Finnish nominal cases. Larmouth contends that cases differ in their degree of boundness and that this fact together with syntactic congruence favours or disfavors resistance to interference. He claimed that the degree of boundness for a particular case can also vary from one environment to another.

Larmouth has observed certain phenomena which bear resemblances to occurrences in the data to be studied here. He states that among the later generations in his sample "In several instances Finnish cases are simply elided (or replaced by the unmarked 'nominative' form)".

As will be seen below this "dropping" of the case marker was found to occur in the Ottawa data but was completely restricted to English-origin nouns. In no case was a native Finnish form left uninflected when a case marker was required. The Ottawa informants, although they were all native speakers of Finnish who had immigrated to

Canada as adults, also had had extensive contact with English. This is of interest since it would appear that some of the cases of interference cited (particularly by the third and fourth generation speakers) could possibly be explained by incomplete learning of Finnish.

Though Larmouth's examples include several instances of non-native words (eg. *tauni* 'town', *puuka* 'book', *gasliini* 'gasoline', *parni* 'barn', *kaara* 'car'), he does not refer to these borrowed items, his concern being restricted to syntactic interference.

Perhaps the work most closely related to the present one, though not quantitative and only based on the speech of a single informant with "relatively low" (1966:8) competence in Finnish, is that of Lehtinen (1966), although it is impossible to establish whether the anomalous forms used by the informant are attributable to incomplete learning or to contact with English.

Lehtinen uses the term "borrowing" to refer to the "transfer of elements from one language into another ... if the items in question have become established in the language" (p.3). She uses the term "introducing" to refer to the "transfer of new (or unestablished) elements into the stream of speech of a bilingual" (p.3). This latter term would therefore cover both code-switching and nonce borrowing as discussed above.

Lehtinen suggests that the "introduction" of foreign elements into Finnish speech is highly systematic and gives as her first aim to formulate rules for introducing English elements into the informants Finnish (p.10) while her second goal is to compare the Finnish of her informant with standard Finnish. As an example of the former she gives a rule that when foreign nouns are introduced into Finnish they "are accommodated into the Finnish morphological system by the addition of the stem formant *i-* if the foreign noun ends in a non-vowel which is not permissible in stem-final position Finnish".⁹ As will be seen below, this is a very common process in the Ottawa Finnish cor-

⁹ Lehtinen goes on to mention that a vowel other than *i-* could also be used as is attested by a number of English loanwords in Finnish (*kaara* 'car' being a well known case - my example) and that dropping of a final consonant would also be a

pus and is also widely attested elsewhere (Karlsson 1983, Lehtinen 1966, Aaltio 1963). However, that this is by no means an obligatory rule is evidenced by the fact that both Lehtinen's own informant and the Ottawa speakers made extensive use of single English-origin nouns in unchanged form when the word was in the nominative singular, as well as in other cases. It would appear on the surface that the nouns with i-stems are borrowings while those without such a stem formant are code-switches. I shall return to this subject later.

Other observations made by Lehtinen can also be brought to bear on our concern with distinguishing code-switching from (nonce) borrowing. Lehtinen's informant used only nominative or partitive case marking on nouns in direct object position. He *never* inflected a direct object with the genitive singular case marker (most often the required case for singular direct objects in affirmative sentences). He made no use of the translative case. In addition, his subject noun phrases were always in the nominative case, even in instances where Finnish requires the partitive case; Lehtinen attributed this to English influence. Further observations included lack of number agreement on predicate nouns and predicate adjectives, and lack of case and number agreement on adjectives, numerals and occasionally, determiner pronouns. As in the data reported by Larmouth the occurrence of these features was not restricted to the vicinity of English-origin words. In contrast, among the Ottawa speakers, as we shall see below, errors of this type never occurred in Finnish-only contexts. However, we do observe many instances of these phenomena throughout the Ottawa corpus in the environment of English items in the discourse. They consist mainly of dropping of case-markers from nouns in favour of the nominative (uninflected) form and lack of case and number agreement on adjectives. There are also instances of missing case agreement on deter-

possible solution (eg. *daala* 'dollar' - again my example). She does not mention however that in cases of an English-origin noun ending in -s, morphological adaptation is not required. Thus words such as *pisnes* 'business' (which is widely attested in North American Finnish) occur without an i-stem by analogy to native Finnish forms such as *tutkimus* 'examination'.

miner pronouns.

Lehtinen's informant was also found to use case markers which deviated from the standard Finnish usage (p.35). Again Lehtinen suggests that these anomalous forms are a result of English interference and the speaker's "uncertainty of Finnish idiom"; as mentioned above, her informant's incomplete acquisition history of Finnish makes it impossible to judge.

Lehtinen also cites examples of English bracketing ("how do you say?" type interjections for example). Recall that this draws attention to the code-switch and thereby allows the speaker to avoid upholding the Equivalence Constraint. This was also one of the strategies used by the French speakers in Poplack's Ottawa-Hull study (1985).

Another discourse device which shall be referred to below as "flagging" appears a number of times in Lehtinen's examples although she herself does not make any mention of it. This is the use of the qualifier *semmonen* 'such' before an English element in a sentence. We will see below that this is used in the Ottawa-Finnish data as a switch-signalling strategy which also breaks up the flow of the sentence. Because it is declinable, it can also function as a bearer of the case-marker which the speaker may omit from the English-origin noun.

A further feature of the informant's speech which is also found in the Ottawa corpus is the use of what Lehtinen calls "determiner pronouns"; that is third person singular and plural non-personal pronouns functioning as determiners. Lehtinen suggests that this occurs as a result of influence from English article patterns.¹⁰ She remarks that her informant uses *se* 'it' (colloquially 'he, she') and *ne* 'they', the Finnish determiner pronouns, "as a kind of emphatic 'article' much more frequently they are used in this function in normal Finnish although the usage is common in normal Finnish." (1966:175) but that the usage does not parallel the standard Finnish usage in that the latter implies greater emphatic value while the informant's usage seems to strictly par-

¹⁰ The Finnish language does not have articles.

allel the English article.

Lehtinen classifies the stretches of English used by her informant in Finnish discourse into three categories: 1) those which would be called sentential in Poplack's terminology; 2) those which do not begin at a sentence boundary but both begin and end at a word boundary. According to this description this category would include intrasentential code-switches, English borrowings which are not marked with any Finnish inflections and possibly other material as well. The third type consists of those beginning at a word boundary and ending at an English stem to which a Finnish inflection is added. This description would cover established loanwords as well as nonce loans but only when a Finnish morphological marker was present.

Lehtinen suggests that intrasentential code-switching can only be possible if some constructions in the two languages are in some sense similar "so that certain syntactic items from each language are equivalent to each other in specific ways" (Lehtinen 1966:153) and that these similarities must be in the surface structure. This is the basic idea behind Poplack's Equivalence Constraint (Poplack 1980, Sankoff and Poplack, 1980).

Above I have reviewed the issues involved in code-switching and borrowing as they are discussed in the literature. In addition, I have examined some of the work done on English-Finnish contact specifically.

The sociolinguistic study of borrowing and code-switching has, as seen above, advanced considerably in recent years. Much of this work has been based on language pairs which are structurally similar and rules and constraints which have been developed have been based on such language pairs. It has been suggested (Sankoff and Poplack 1980) that further study be undertaken involving disparate language pairs in order to establish whether proposed constraints can apply across different language pairs. Finnish, a postpositional and inflected language, unlike English, a prepositional and analytic language, fulfills this requirement.

Given that no two language contact situations are alike, it seems impossible to predict what the results of language contact will be between any two languages in any particular community. Highly contrasting results from community to community in the few situations which have been empirically studied support this observation and suggest that additional studies of bilingual situations are needed.

The present study will examine a corpus of tape-recorded bilingual speech by speakers of Finnish and English. Specifically, this thesis will focus on the English code-switches and borrowed nouns found in the database. I will try to establish 1) whether the typological differences in the languages lead to violations of the Equivalence Constraint and 2) whether we can use the properties of the languages to determine whether examples of single word English-origin items can be shown to be nonce borrowings rather than code-switches. In addition, I examine 3) whether there is any means of accounting for missing case-markers on nonce borrowings (and established loanwords) and 4) whether any strategies such as flagging and inflecting qualifiers for example, which speakers might use in order to avoid inflecting borrowed nouns, vary from speaker to speaker or whether there is evidence that common strategies exist which might be interpreted as community norms.



Chapter II

METHODOLOGY

2.1 The Corpus

The database on which this study is based¹¹ consists of informal tape-recorded conversations between eight first-generation Finnish women residing in Ottawa, Canada and Anneli Westwood, a well-known core member of the local Finnish community. Mrs. Westwood knew some of the informants personally and located others through standard social network techniques. These sessions, conducted in Finnish in the home of the interviewer or the informant were two to three hours in length, totalling 22 hours of speech. After each interview, the interviewer made out an Interview Report containing demographic information on the informant plus details of the interview.

Each tape was exhaustively searched by the author and all segments containing an English word or phrase were transcribed, along with surrounding contextual material. The exceptions were street names and place names which were omitted since most were unlikely to have a Finnish alternative form and because their high frequency of occurrence might contribute to misleading overall results. Each segment was then glossed literally and a full English translation was given. Also included in this transcription were indicators for hesitations, false starts, incomplete words, ratifications by the interlocutor, and other relevant discourse phenomena. The tape number and counter number were indicated for each segment which was transcribed. The transcriptions were subsequently corrected once by Mrs. Westwood and once by me.

¹¹ This thesis is based on a corpus of data collected as a part of a project on code-switching constraints in typologically different language pairs being carried out by S. Poplack and D. Sankoff, and funded by the SSHRCC, whose support is gratefully acknowledged here.

2.1.1 The Speakers

The informants were eight women, all of whom were born in Finland.¹² They range in age from 33 to 86 years and their time of residence in Canada ranges from 13 to 55 years. Six are highly proficient in English; one is able to communicate in English but is clearly not a fluent speaker. The eighth speaker is very elderly, and although she has lived in Canada for 55 years and uses English more often than Finnish, speaks what can only be called "broken" English. All speak fluent Finnish although some are currently more used to speaking English and appear to be more comfortable with English. Four of the speakers work full-time and use English at work. Six of the eight speakers are or have been married to non-Finnish speakers; one is married to a Finn and one to a Finnish Canadian. Their demographic characteristics are summarized in Table 1.

¹² The speakers' names have been changed to protect their anonymity.

Table 1: Demographic information on informants							
Speaker	Yrs outside Finland	Yrs in Canada	Age of Arrival	Language of Spouse	Current Age	Years of Education	Language used at home
Helle	37	32	20	English/Finnish	52	10+ business college	E
Riitta	29	29	29	English (Canadian)	58	11 (F)	E
Airi	26	26	26	Italian	52	9 (F)	E
Raija	13	9	24	English (Scottish)	33	12 (F) 3 (E)(univ.)	E
Elina	28	16	35	Gujarati	51	8 (F) 4 (E)(nursing)	E
Maija	16	16	26	Turkish (separated)	42	11 (F) + Nursing (F)	E
Hilja	23	23	41	Finnish	64	9 (F)	F
Aino	55	55	31	Swedish	86	10 (F)	E

Two of the informants along with the interviewer regularly attend meetings of what they refer to as a book club. The club consists of a group of women who meet once a month in a private home for an afternoon of coffee and conversation; they also exchange books and magazines. The aim of this group is to keep up their Finnish language and culture by meeting other Finns since they are unable to do this in their daily lives and by reading Finnish books and magazines. The total number of women who attend is quite large but an average turnout would probably be from 10 to 20 people. Most of the informants have attended these meetings although not always on a regular basis as the meetings are held on weekday afternoons. All are acquainted with the other group members. Although the Ottawa Finnish community is small and not particularly active, there is definitely an underlying social network to which all these speakers belong. Below is a brief background sketch of each informant.

Helle was born in Finland and came to Canada at the age of 20. She speaks English fluently but is easily identifiable as a non-native speaker. Her husband is a Finnish Canadian but they speak more English together than Finnish. Helle works in real estate and therefore uses English in her day-to-day work. Before coming to Canada she lived in Denmark for several years where she learned Danish. Helle is much more of a "talker" than any of the others; she spoke freely and the interviewer did not have to encourage her to speak. In the course of the interview she related many anecdotes in very natural speech. Having lived in Canada for many years and being married to a Finnish Canadian, Helle is very familiar with the well-established lexicon of English loanwords used by North American Finns.

Elina studied nursing in England as a young adult and worked as a nurse there and also in Aden before coming to Canada at age 35 in 1968. She still works as a nurse and therefore uses English at work. Her husband is a native speaker of Gujarati and English is their common language. She appears to be more at ease speaking English than Finnish.

Aino, who was 86 years old at the time of the interview came to Canada in 1929 at the age of 32. Her proficiency in English appears to be very poor. Although she is able to communicate in English and has been doing so for many years, she speaks a sort of "broken" English that is not uncommon in older immigrants. Her husband was an immigrant from Sweden and she claims to be able to manage in Swedish as well. The interviewer felt that she has maintained her Finnish "quite well" considering the limited practice she has had in more recent years. Aino used many anomalous forms in her speech.

Airi has been in Canada for 26 years, having arrived at the age of 26. She speaks English fluently and uses it regularly in her job as a restaurant worker and at home with her husband who is a native speaker of Italian.

Raija is the youngest of the informants at 33 years of age and had been in Canada for 9 years at the time of the interview. Previously, she and her Scottish husband spent three years living in South Africa. While in South Africa she attended an English university.

Hilja and her husband who is also Finnish immigrated to Canada 23 years ago when she was 41 years old. Prior to coming to Ottawa she lived in Montreal for seventeen years where it appears her life was very much restricted to the Finnish community. She seems to lack confidence in speaking English and in fact, her English is quite poor. Her four children all speak Finnish but they evidently speak English to her some of the time. Hilja regrets having left Montreal and it would appear that part of the reason is the absence of an active Finnish community in Ottawa.

Riitta came to Canada in 1955 at the age of 29. Before marrying her husband, an English-speaking Canadian, she worked for several years at clerical jobs in Ottawa. She speaks excellent English and also takes pride in maintaining her "pure" Finnish. As her three children speak very little Finnish, she speaks only English at home. However, she keeps in close contact with many other Finnish people in Ottawa.

Maija arrived in Canada in 1972 at age 26 and has lived in Quebec City and Ottawa. She speaks English very well and uses it in her work as a nurse. She has been separated for many years from her husband who is not a native speaker of English. She speaks English with her daughter and seems to be more comfortable speaking English. She sometimes expresses her preference for using English.

2.1.2 Data Collection

The informants are not isolated individuals who have no connection with each other. Rather they are members of a network who regularly engage in social interaction, at least one purpose of which is to have the opportunity to speak Finnish. My status as a second generation Finn automatically excluded me from the core of this network. Although I attended some of the group's meetings it was impossible for me to collect natural data. The fact that I am Canadian born and therefore only a marginal member of the group, together with the fact that I do not speak Finnish completely fluently, resulted in my being spoken to in English much of the time and prevented me from achieving the status of participant observer.

Consequently, I opted (as did William Labov in Harlem (1969) and Poplack in Harlem (1980) and Ottawa-Hull (1985)) to have a core member of the group collect natural speech data. This distinguishes my study from previous studies of Finnish bilingual behaviour which have not attempted to collect natural data.

2.2 The Analytical Framework

I have already described (in Chapter 1) the difficulties inherent in assessing anecdotal reports of bilingual behaviour. Larmouth (1974) and Lehtinen (1966) have provided attestations of "anomalous" behaviour, including absent case-marking, failure to make use of a particular case, lack of case and number agreement on adjectives and numerals and lack of agreement on predicate nouns and predicate adjectives, and ascribed it

to "interference" or other aspects of the contact situation. However, there is no indication in their studies of the scope of these phenomena, i.e. whether they represent isolated, individual occurrences or new community norms. It is for this reason that I have adopted a quantitative approach to the problem in this thesis. William Labov (1969, 1971) showed how data from the speech community in a formal rule system, could be used to make a systematic study of a particular linguistic problem. Arguing against the tradition which bases theories on intuitive judgements, Labov claimed that the "grammar of the speech community is more regular and systematic than the behavior of any one individual" (1969:759) and that the speech of the individual must be studied within the system of the community as a whole if it is to be seen as something other than arbitrary variation. Labov's approach to the study of Black English Vernacular combined a quantitative analysis of systematic variation with techniques of generative grammar in such a way that it would be possible to replicate the study in other BEV speech communities. Labov showed that solutions to theoretical questions can be found by a systematic, quantitative analysis of natural data from the speech community.

Like Labov, G. Sankoff (1980) outlined a quantitative approach to sociolinguistic research requiring the study of systematic tape-recorded speech data reflecting the speech of members of the community while taking into account social characteristics of that community. Sankoff illustrates how linguistic competence can be inferred from linguistic performance as found in natural speech data and that the linguistic variability found therein is best described in terms of non-categorical rules through the use of quantitative analysis (see also D. Sankoff, 1982; G. Sankoff and W. Labov 1985).

Thus, a quantitative approach involves 1) studying a self-defined group of speakers with regular interaction patterns, i.e. a speech community, rather than a series of isolated individuals whose communicative patterns are unknown, and 2) accounting for *all* of the relevant data, rather than merely the deviations from some form taken to be the

"standard", i.e. what Labov calls the "principle of accountable reporting" (1972). Thus in what follows I report not only on "deviations" from what would be expected in Standard Finnish, but also on all the cases where such deviations *might* have occurred and did not. In this sense I treat case-marking of nominals as a classical case of a linguistic variable (e.g. Labov 1969). I will thus be in a position to show the true proportion such deviations represent of the total verbal output, i.e. to assess whether they represent momentary interference on the part of the individual, or whether they may be taken to represent an established change in the language of the network, i.e. linguistic convergence. To do this I adopted the following coding procedures.

2.2.1 Coding Procedures

Following the completion of the transcription, a series of coding procedures was begun. The English-origin material found in the corpus could of course represent instances of any of various language contact phenomena. Since in this thesis I focus on borrowing and code-switching, it is crucial to distinguish one from the other to avoid misanalysis.

First, coding sheets were prepared for tags and interjections. Any English word which had no syntactic connection to any other constituent in the sentence was considered to fall into the tag/interjection category. Some examples are *anyway*, *you know*, *I mean* and *no way*. Only unambiguous tags and interjections were retained and grouped according to speaker. Those which were for any reason questionable were listed separately (e.g. some instances of *I don't know* which might have actually been uttered with the intention of conveying that meaning rather than simply as an interjection). The next step was to separate out the cases of English-origin material which were clearly code-switches rather than borrowings. Each instance of bilingual behaviour which was considered to be an unambiguous code-switch, was noted on a card together with the speaker's name and the tape and counter numbers. These included long stretches of English discourse such as a sentence or a full clause, as well as items containing any English function word.

ja sanoo ettâ ... (and says that ...) THE NEIGHBOURS
 ARE COMPLAINING ettâ (that) SOMETHING'S GOING ON
 (11a-022)

ja nyt ne on paljon- ja (and now they are a lot- and)
 MANAGEMENT IS MUCH MORE CAREFUL
 (2a-253)

The remaining instances of bilingual behaviour were mainly single word items of English-origin. These included 24 verb forms, including a number of infinitives and one verbal noun. One hundred and five items were adjectives. These adjectives and verbs were extracted from the corpus but will not be the focus of consideration here. The overwhelming majority of English-origin material not contained in code-switches or tags were nouns, which numbered 813. Included among them were simple (one-word) nouns (e.g. *college-iin*, 11b-144, *hospital* 17a-019) as well as compound nouns (e.g. *shopping bag-issa*, 11b-207; *summer camps* 10b-413) functioning as single lexical items. Similarly, a number of adjective-noun combination forms (e.g. *artificial tree* 20a-426, *city people* 25b-199) were included since it was considered possible that they were also functioning as single lexical items. Many of these items from English showed no Finnish inflection and could therefore constitute either borrowings or code-switches. These items will be a focus of this investigation. Names of businesses, organizations and publications and job titles were among the proper nouns which were included.

The nouns were coded as follows. A coding sheet was prepared for each speaker and for each case. Therefore, for each speaker there was a coding sheet for each of eleven different cases¹³ and for each case coded there was a coding sheet for each of eight speakers. Each English noun was coded both according to case and to whether the appropriate case-marker was present. Thus, if an English-origin noun occurred in

¹³ Only the 11 most commonly used cases occurred at all in this corpus, and some of these, exceedingly rarely.

an otherwise Finnish sentence and was required to be inflected with the genitive case in that sentence, that particular word would be entered onto a coding sheet for English genitive nouns. If the word carried the case marker as required, it would be coded as such. If the word was not inflected for case despite the fact that a genitive case ending was required, it would be coded as "Marker Absent". All the nominal borrowings found in the corpus (excluding those which occurred within a larger code-switch but including the compound nouns) were coded in this manner. This comprised the "first coding" of the nouns. (See Appendix A.)

With regard to English nouns which by Finnish rules would take nominative case, however, the coding was somewhat exceptional. As mentioned above, in Finnish the nominative singular form of the noun is unmarked. In the majority of native Finnish nouns the nominative singular ends in a vowel. There is said to be a general tendency for loanwords ending in a consonant to undergo a phonological change during the borrowing process whereby the word is often borrowed as noun + /i/ or occasionally noun + another vowel (Aaltio 1983:30). Besides allowing the word to be phonologically integrated into Finnish, this creates a stem for case markers or other nominal inflections when required. If a borrowed noun ending in a consonant is inflected with a case marker other than the nominative singular (null mark), addition of the stem vowel is virtually obligatory; without it the form would be alien to Finnish phonological patterns and virtually impossible to pronounce. However, if the loanword is in the nominative singular, i.e. uninflected, the stem vowel change is optional. Consequently, such a noun may either appear in its normal English form or with the added stem vowel. Examples of both kinds are found in the data. For example, no vowel change has occurred in *park* (15b-14), *house* (29b-067), or *church* (10a-156) while *job-i* (10b-096), *contractor-i* (10a-041), *slave-i* (19b-037) and *house-i* (17b-297) have undergone the stem vowel change. When the stem change occurs it is completely clear that the speaker is

using the loanword in its nominative form. However, if the speaker used an English noun with no stem change in a sentence which required the noun to be in the nominative singular, it is not clear whether the word is being treated simply as the English word, i.e. it is a code-switch and the speaker is merely alternating her use of the two languages, or, it is a loanword in the nominative singular but without any phonological changes. I will try to establish the proportion of these loanwords which are truly nominative on the basis of case-marking in the other cases which have no ambiguous representations.

A similar ambiguity arises when the English noun already ends in a vowel particularly /-i/, for example, *party*. In such an instance it is likewise impossible to determine the intention of the speaker with regard to phonological integration.

To distinguish the ambiguously case-marked nouns from the others, those nouns which required the nominative case and carried the *-i* ending or the nominative plural /-t/ marker, were coded as nominative "marker present" while those which had undergone no changes to the singular form of the English noun were coded as nominative "marker absent". Note however that the absent label is not entirely accurate as it is not clear that the case is, in fact, absent in these instances. I return to this issue in Chapter 4 below. This practice is thus different from the coding procedures for other cases (genitive, adessive, etc.) where case-marking is unambiguous.

In order to establish whether the English-origin nouns are borrowings (in which case they should behave like Finnish nouns) or code-switches (in which case they should behave like English nouns), I compared the behaviour of the English-origin loanwords with the native Finnish nouns in our transcriptions i.e. those found in the context immediately surrounding the borrowings, code-switches and tags or interjections. These totalled approximately the same number (803) as the English-origin items, similarly distributed according to case.

I next carried out the same coding procedure on the Finnish nouns to assess the degree to which English-origin forms were behaving like native Finnish forms (Appendix B).¹⁴

The second coding procedure took the form described below and as above, included all forms with the case marker absent or present. The examples were ordered first by case. For example, a coding sheet would bear the heading "Case: Translative 'Absent'". Each example would then be listed according to speaker. The tape and counter numbers would be listed in the leftmost column for ease of reference with the loanword to the right of the numbers. The right-hand side of the page was divided into a series of columns each of which represents a specific factor which might be significant to the understanding of the borrowing phenomenon and specifically to the smooth integration of English-origin words into Finnish. For each English-origin form there appears a coding symbol in each of the columns giving details of the environment in which the loanword occurred (Appendices C, D, E). The categories are described below.

- *PRECEDING FALSE START OR PAUSE*

This category indicates whether the loanword was preceded by a false start or a detectible pause, either of which might indicate uncertainty on the part of the speaker as to his use of the native word or loanword. The coding symbols used were: FS=False Start, P=Pause, N=No preceding pause or false start. "Pause" included an actual discernible period of silence, and verbalized hesitations such as *uh*, *um*, or Finnish *tuota* 'um', as in the examples in 1) below. Examples can be found in Appendices C, D, and E.

¹⁴ Note that approximately 32 items were impossible to categorize initially according to grammatical category or were discarded later because of coding difficulties. In some cases the sentence in question was broken up to the extent that it was not clear whether the item was a noun or an adjective for example. In other cases unusual sentence structure, broken sentences or inaudible segments made it difficult to understand exactly what the speaker was trying to say and therefore made coding according to case impossible.

(1) Preceding Pause:

- a) mitâ sâ haluat se ... lunch-iks
 what you want-you it TR.

What do you want for lunch?
 (16a-096)

- b) mentiin Pariisiin uh viikoks
 went-we Paris-IL. week-TR.

uh ... honeymoon-iin
 -IL.

We went to Paris on a week's honeymoon.
 (19a-400)

"False start" included 1) a disfluency such as stuttering on the loanword itself or a preceding word or both, 2) a false start in Finnish followed by an English equivalent and 3) a false start in English followed by the complete form or by a self-correction. In many cases false starts were found to occur together with a pause. Such examples were coded as false starts; i.e. false starts were given precedence over simple pauses.

(2) Preceding False Start:

- a) no, no se sano se- se nurse-i
 well well it said it -it N.

Well, well she said that- that nurse
 (17a-084)

- b) ottaa kaikki kokeet joki- joka
 to take all tests-N. every

subject-- subject-issa
 -IN.

to take all the tests in every subject
 (20b-052)

c) olla tr-- translator
 to be
 to be a translator
 (19b-111)

d) on ollut mun pri-- number one priority
 is been my
 has been my number one priority.
 (20b-165)

e) kaks kyt viis dollaria viikko ruoka--
 twenty five dollar-P. week-N. food
 room and board
 twenty five dollars a week for room and board
 (10a-204)

f) aika iso heritance- inheritance
 quite big
 ... Suomesta
 Finland-EL.
 quite a big inheritance from Finland
 (9b-224)

• *FOLLOWING FALSE START OR PAUSE*

Like the above category, this indicates whether the loanword was followed by a false start or a pause. Again, this might indicate the speaker's awareness of having made use of a borrowing or production difficulties in its vicinity. As above, a following "pause" included a discernible silence and verbalized hesitation. The coding symbols were as for the Preceding Pause: FS=False Start P=Pause, N=No following hesitation.

Loanwords occurring in sentence-final position (regardless of whether the sentence was affirmative or interrogative) followed by a turn boundary were not coded for following pause. Similarly, in cases where the borrowed word marked the natural end of a statement and was followed first by a pause and then by a new thought, that pause was not coded. This applied only when it was clear that the pause was in accordance with normal conversational patterns. Examples may be seen in (3).

(3) Following Pause:

- a) Mâ laiton oikein ison semmosen
I made-I very big-G such-G..

aluminum pan ... lihapullia
meatballs-P.

I made a very big, like, aluminum
pan of meatballs.
(10a-368)

- b) niin tää matron ... sano ettâ...
so this said that

So this matron said that ...
(26a-156)

Other disfluencies following the loanword were coded as false starts, as in

(4).

(4) Following False Start:

- a) tââllâ on se yks ... lady si-- se aina
 here is it one it always

virkaa
 crochets-she

There is this one lady here, she is
 always crocheting
 (17b-385)

- b) niille muille au pair girl joka- jotka
 they-AL. others-AL. who who-P.

oli ollut
 was been

these other au pair girls who had been
 (18a-236)

Coding symbols: FS=False Start, P=Pause, 0=No following hesitation

• *REPETITION/TRANSLATION/EXPLANATION*

If the borrowing in question was a repetition, a translation, or a explanation of a word already spoken by either the same speaker or an interlocutor, it was coded as such. It was thought the presence of these features might indicate the speaker's awareness of having used an English-origin form. Coding symbols: R=Repetition, T=Translation, E=Explanation, N=None

If a loan was repeated, the original occurrence of the word was coded normally and the second occurrence was coded as a repetition, translation, or explanation. If the speaker repeated, translated, or further explained a word uttered by an interlocutor, it was also coded as such.

(5) Repetition:

- a) se on tââllâ rootit- roots
 it is here root-PL

the roots are here
 (10a-262)

(6) Translation:

- a) ne lapset tuli ja pyys
they children-N. came and begged for

kirjoja, books
books-P.

the children came and begged for books, books
(26a-409)

(7) Explanation:

- a) me käytiin kyllä picnic-eissa-
we went-we certainly picnic-PL.-IN.

suomalaisten picnic-eissa paljon
Finnish-PL.-G. picnic-PL-IN. a lot

certainly we went on picnics- Finnish
picnics a lot
(23a-031)

• *FLAG*

A flag denotes a word preceding the borrowed word which in some sense brackets or highlights the following word, and thus might serve as an indicator to the interlocutor that a loanword would follow. This was indicated according to presence (Y=Yes), or absence (N=No).

It was thought that several words recurring in the data might have such a function particularly *sellainen* or *semmo(i)nen* 'such, like that, that kind', *tällainen* or *tämmö(i)nen* 'like this, of this sort', *tuollainen* or *t(u)ommo(i)nen* 'such', 'like that', *niin kuin* 'like' or *kuin* 'like' alone as well as English *you know*. While these words can and do occur in monolingual Finnish speech, we will see below that they appear particularly frequently in the vicinity of English-origin words. Since they can function more or less as 'fillers' without actually altering the meaning of the sentence, it seemed possible that they were actually operating as flagging devices.

The use of such flags might also involve a strategy whereby a speaker may avoid inflecting the loanword by inflecting the flag for the appropriate case. This of course applies only to those flags which are declinable and therefore excludes *niin kuin* and *kuin*. I return to this issue below.

Declinable flags, notably *semmonen*, are variably inflected for case in the vicinity of English-origin words as in 9a) where it is inflected for partitive plural although the noun itself is not and in 10b) where *semmonen* occurs in the unmarked nominative singular although according to standard Finnish rules, it should be inflected for the nominative plural.

(8) Undeclinable Flag:

- a) hân ois niin kuin programmer-i
he would be like -N.

He would be like a programmer.
(22b-097)

- b) joka oli niin kuin um ... toi uh ... illegal
who was like that

immigrant

who was like an illegal immigrant
(27b-374)

(9) Inflected Flag:

- a) ne on ihan niin kuin semmosia
they is quite like such-PL.-P.

temper tantrum

they're just like, like temper tantrums
(27b-261)

- b) rupesin pitâmâân semmosta rooming house-a
started-I to keep such-P. -P.

I started keeping like a rooming house
(15b-136)

(10) Uninflected Flag:

- a) oli sellainen contractor
was such

he was like a contractor
(19b-241)

- b) ne rântäs semmonen hirveât speaker-it
they rented such terrible-PL-N. -PL.

they rented such terrible speakers
(11a-015)

In one case a flag occurred following the borrowed word.

(11) Following Flag:

- a) jos on occasion niin kuin,
is is like

if it's an occasion like

(11b-236)

• *RATIFICATION MARKER-*

Throughout the discourse the interlocutor frequently appeared to be ratifying the fact that the speaker had switched languages: either to signal comprehension, acknowledgment or acceptance of the fact that a loanword had been used. Interjections expressing agreement such as *joo*, *ya*, *niin*, *uh huh* were included as possible ratification markers.

If a turn boundary occurred after a sentence-final loanword and that turn (by the interlocutor) was a full question or normal response then that utterance was not considered to be a ratification. Similarly, if a response by the interlocutor such as *mhm*, *joo*, etc. occurred immediately after the loanword but given the greater context it could possibly be interpreted as a response to the content of the utterance, then it was still coded as a ratification marker even though its status was considered to be indeterminate.

In fact, the bulk of the examples are such cases in which it is not clear whether the interlocutor's intention was ratification of a loanword or simply agreement with or acknowledgement of the statement as a whole. There are, on the other hand, cases where it seems quite clear that the occurrence of the ratification marker was in direct relation to the word in question. In any event, since ratification markers are of course quite frequent throughout the discourse (particularly in Nordic languages) I also extracted all instances of their occurrence in the monolingual segments of discourse. This will permit me to assess their particular role in the incorporation of English-origin words. Coding symbols: Y=Yes, N=No, I=Indeterminate.

• INFLECTION ELSEWHERE

Although borrowed words were only variably inflected for case, there were instances in which the missing inflectional material was provided elsewhere, for example, on the above-mentioned flags (in standard Finnish, there is inflectional concord, such that the noun and all its attributes must receive case-marking).

An inflection may also fall on a preceding adjective or on certain demonstrative or indefinite pronouns which preceded the noun. All combinations of flag, determiner and adjective were found to occur and one or all could be inflected for number and case. One might expect there to be a greater likelihood of unin-

flected borrowed forms occurring in the environment of another inflection. I thus coded all nouns (whether inflected or not) according to whether another inflection appeared in its vicinity. Examples of the attested combinations appear in (12) -(13) below.

(12) Inflection on Noun and Determiner:

- a) tuon telephone-in
that-G. -G.

that telephone
(16b-391)

(13) Inflection on determiner, none on Noun:

- a) sen union
it-G.

the union
(2a-321)

- b) yheltâ nâiltâ executive search firms
one-AB. these-AB.

from one of these executive search firms
(26b-030)

(14) Inflection on Adjective and Flag,
None on Noun:

- a) ison semosen aluminum pan
big-G. such-G.

a big like aluminum pan
(10a-368)

Coding symbols: P=Preceding, F=Following, N=None.

• *FINNISH DETERMINER*

Although Finnish does not have articles, initial examination of these data suggested that demonstratives were being used much like determiners, possibly to carry the inflection missing from the loanword, similar to the flagging strategy, or to otherwise signal loanword usage (see also Lehtinen 1966:175).

The demonstratives are: *tâmâ* 'this', *tuo* 'that', *nâmâ* 'these', *nuo* 'those', *se* 'it, that', *ne* 'they'.¹⁵

Also included in this category were the declinable indefinite pronouns *joku* 'someone' and *jokin* 'something' and the numeral *yksi* 'one'.

Se can be used in spoken Finnish to mean 'that' but it "refers primarily to something previously mentioned" (Karlsson 1983:121). Preliminary examination of the data suggested that *se* in particular, and perhaps the other demonstrative pronouns as well, were being used much as 'the' would be used in English.

While demonstratives may be frequently used in Finnish colloquial speech, as mentioned above, it is not permissible in standard Finnish to have an inflected "determiner" followed by an uninflected noun.

It is also possible that this usage is a result of interference from English which of course has a determiner system and is therefore used before English loanwords, and possibly also to provide an equivalent site for code-switching. To shed light on this question, I therefore coded "determiner" usage before both English-origin and native Finnish nouns. The examples in 15) show demonstratives in the nominative singular. In 15a) *se* is in the required nominative case while *breakfast* lacks the nominative *i*-stem. In 15b) both the noun *wires* and the demonstrative *ne* are lacking the required partitive inflection. 15c) is also an example of a bare English-origin noun which requires nominative case-marking;

¹⁵ Colloquial forms *noi* and *toi* corresponding to *nuo* and *tuo* respectively are also found in the data.

again *toi*, the demonstrative is in the required nominative case. In 15d) *joku* is correctly in the nominative singular while the status of *lady* cannot be determined because the English form already ends in /i/.

- (15) No Inflection on Finnish determiner or English noun:

a) se breakfast oli
it was

the breakfast was
(10a-368)

b) meillä on toi um ... playroom
we-AD. is that

we have that playroom
(28a-262)

c) niin joku lady puhu
so some talked

so some lady talked
(15b-239)

d) kaikki ne ... ai kauheeta ...
all they oh awful-P. they

ne wires
they

all the ... oh it's awful ... the wires
(28a-373)

- (16) Inflection on Finnish determiner,

a) tulee ihan kauheesti niitä cravings
came quite terribly they-P.

one gets these terrible cravings
(1a-142)

- b) *niin kuin ne sanoo sitâ ... experience-i*
 like they say it-P.

like they say the experience
 (22b-089)

- c) *ne aloitti sen union*
 they started it-G.

they started the union
 (2a-321)

- d) *oli opettanut englantia niille*
 was taught English-P they-AL.

muille au pair girl
 others-AL.

had taught English to the other au pair girls
 (18a-236)

- e) *jossakin basement-issâ*
 some-IN.-EMPH. -IN.

in some basement
 (2a-034)

When coding the "local cases" (inessive, elative, illative, adessive, ablative and allative) for "Finnish Determiner" (and also for "Case-marker elsewhere"), adverbs of place (eg. *tâällä* 'here', *tuolla* 'there' etc.) which occurred in the immediate vicinity of the loanword were considered to be functioning as determiners. The adverbs of place (eg. *tâällä* 'here', *tuolla* 'there', *siellä* 'there') are formed from the stems *tâ-*, *tuo-* and *si(i)-* which are also the stems of the demonstrative pronouns. Some of the demonstrative pronouns, specifically the "inner local case" forms, (i.e. inessive, illative and elative) are identical to certain adverbs of place.

Table 2: Inflection of Adverbs of Place

		Static	Movement Away	Movement Towards
Here	Inner Local	tâssâ	tâstâ	tâhân
	Outer Local	tââllâ	tâltâ	tânnê
There (near/ specific)	Inner Local	tuossa	tuosta	tuohon
	Outer Local	tuolla	tuolta	tuonne
There (far/ general)	Inner Local	siinâ	siitâ	siihen
	Outer Local	siellâ	sieltâ	sinne

It is generally very difficult if not impossible to distinguish whether a given form is functioning as an adverb or a demonstrative pronoun if, in fact, there is a difference since with a locative form the meaning carried by one is very close to the meaning carried by the other.

Even in instances where the adverb is definitely functioning as an adverb and is not a form which could be confounded with a demonstrative, for example the

inessive with *siellä* 'there' or the illative with *sinne* 'there' it is still possible that the adverb is being used just as was speculated for the demonstrative i.e. as a strategy to avoid inflecting the loanword. Here again, comparison of determiner behaviour in Finnish and English will contribute to resolving the question of its function.

(17) Inflection on Adverb/Demonstrative
and English noun:

- a) siellä hospital-issa
there -IN.

there in the hospital (17a-011)

- b) sinne office-iin
there -IL.

there to the office (11a-167)

other examples include:

(18) Inflection on Finnish Adverbs/Demonstratives,
none on English noun

- a) täällä Woodroffe High School
here

here (at) Woodroffe High School (16a-069)

- b) siellä nursing home
there

there (in the) nursing home (16b-073)

- c) tuolla Ottawa School of Art
there

there (at the) Ottawa School of Art (12a-161)

It should be noted that sometimes the inner local case could not have been used as in:

- d) tuolla hospital
there

there (in the) hospital (17a-019)

even though the noun was (or should have been) inflected for inessive (i.e. *hospital-issa*) since in this case the corresponding form (*tuossa*) would have too specific a meaning. Therefore, despite the fact that 'there' takes the adessive form *tuolla* and not the inessive which is the case required by the noun i.e. *tuossa*, we can still say that the determiner is inflected for case.

(19) Preceding Adverb Inflected for Case.

- a) tuonne air force
there

there (into the) air force (16a-023)

- b). sinne apartment
there

there (into the) apartment (17b-057)

Presence or absence of such a determiner was indicated by Y=Yes or N=No.

• STEM VOWEL CHANGE (NOMINATIVE)

The existence of a stem vowel change is at issue only in the nominative singular. As discussed above, when the sentence required the nominative case, some English loanwords underwent a change such that /-i/ (or occasionally another vowel) was added to create a Finnish nominative form, while in other instances no stem change took place. It is possible for example, that the nominative nouns with the *i*-stem are in fact borrowings while those with the regular English form are code-switches. On the other hand it is possible that nouns both with and without *i*-stems may have nominative case value and both types may be borrowings.

If a borrowed English noun ends with a consonant it is quite clear when a stem change occurs. However, if the English word ends in a vowel e.g. *party*, it is impossible to know whether the speaker was simply code-switching to the English word or whether the phonological form of the English word is interpreted by the speaker as already containing the nominative singular *-i* inflection. These questionable examples were isolated from the rest of the data by coding for Stem Vowel Change and for whether the English noun ends in a consonant or a vowel. Coding symbols: Y=Yes, N=No.

- *ENGLISH NOUN ENDS IN A CONSONANT OR VOWEL*

This category simply indicates whether the English singular noun ends in a consonant or a vowel, for cases where there is doubt as to the presence or absence of the nominative case marker. Since a noun which, in English, ends in /i/ would have to be coded "No" in the "stem vowel change" category, this additional category is necessary in order to distinguish these cases from nouns ending in a consonant and undergoing no stem change. Therefore, an English noun ending in a vowel, such as 'party', would be coded as ending in a vowel and having no stem vowel change regardless of whether it was inflected for case or not.

- *PLURAL OBLIGATORY AND LANGUAGE OF PLURAL MARKER*

Nouns were coded as to whether a plural marker would be obligatory in standard Finnish according to the context and whether that plural inflection was actually present and in which language it occurred. However, since very few plurals occurred in the data with or without obligatory plural markers, I do not discuss this factor further.

- **SIMPLE/COMPOUND NOUNS**

This category was included as it was speculated that borrowings might be restricted to simple nouns while compound nouns might actually be code-switches. The Coding symbols were: S=Simple noun, C=Compound noun.

Apart from the many simple nouns that occurred in the corpus there were also a substantial number of compound nouns. Many of these were commonly used compounds such as : *nursing home, laundry room, baby carriage, apartment building* and *gas station*, which one would suppose would function as single lexical items and might therefore constitute loanwords in the same way as the simple nouns. Items such as *aluminum pan, high school kids, city people, colourful people, absolute boss* were also included although they might simply be code-switched adjective-noun combinations rather than borrowed compound nouns. However the fact that English articles did not occur with these forms suggests that they are not code-switches. Although some were marked with English plural inflection, Sankoff, Poplack & Vanniarajan (1986) who found similar examples in Tamil, point out that plural inflection is sometimes susceptible to borrowing along with the noun; thus presence of an English plural inflection does not rule out the possibility that the form is a borrowing.

- **PROPER NOUN**

Proper nouns other than street names and place names were included in the coding. As with the simple and compound nouns, I wanted to investigate whether proper nouns behave differently from common nouns. Coding symbols: Y=Yes, N=No.

- *SYNTACTIC FUNCTION (OF NOMINATIVE, GENITIVE, PARTITIVE)*

Since nouns in the nominative, genitive and partitive cases can have more than one grammatical function, it was necessary to distinguish cases of these in case differing functions might have a bearing on the borrowing process. For example, with respect to case-marking of borrowings, there might be differences between subject nominatives and object nominatives; it is possible that the inflection can be omitted more readily from a subject nominative by analogy with Finnish rules for singular nominatives as opposed to direct object nominatives. Similarly, genitives of possession might never lack the case marker while direct object genitives might vary as to whether the inflection is present.

- *OTHER*

Finally, space was reserved for other comments. Any anomalous occurrence regarding the loanword or its Finnish context was noted as were instances of English bracketing, metalinguistic comments, English syntactic constructions and other information that might be of importance.

✓ 2.3 Quantitative Breakdown of the Data

Based on the results of this coding procedure, the next step was to break down these figures and calculate totals and percentages according to case, speaker and the various discourse features.

First, the number of tokens in each category were counted. For example, the first category or discourse feature was "Preceding False Start or Pause". Thus for the nominative case the total number of tokens were counted for each speaker for : 1) preceding false starts, 2) preceding pauses, and 3) absence of preceding pause or false start. In keeping with the preceding coding procedure, these figures were subdivided into: Finnish nouns, English-origin nouns with the required case-marking, and English-origin

nouns without the required case-marking. (All Finnish nouns received the required case marking.) These totals were compiled for each speaker, for each of the eleven cases occurring in the data and for each of the seven discourse feature categories discussed above.

These figures were then used to calculate percentages according to discourse feature, case and speaker.

To use "Preceding False Start" as an example - in order to determine differences in behaviour of English-origin nouns with case markers and those without case markers, the following calculations were made. For each discourse feature it was calculated how many English-origin nouns occurred in the vicinity of that feature and how many of these lacked the required case-marker (and what percentage it represented) in order to determine whether the particular discourse feature might be associated with lack of case-marking. The converse calculations were also made i.e. the number and percentage of English-origin nouns in the vicinity of the discourse feature which *were* inflected with the appropriate case-marker.

Secondly, calculations were made indicating differences between use of Finnish nouns and English-origin nouns in the various environments. The total number of Finnish nouns in the vicinity of the discourse feature were calculated as well as the total number of Finnish and English nouns combined. The ratio of Finnish nouns to the total was expressed as a fraction as was the ratio of English-origin nouns to the combined total. These calculations should show whether the discourse features occur primarily in the vicinity of English-origin words (as might be expected) and if so, to what extent this is the case as well as differential behaviour of the different discourse features.

The results of the above calculations were then broken down by speaker without regard to case (that is, amalgamating the totals for all cases) and by discourse feature

in order to determine whether the use of English and of case-marking varied from speaker to speaker and from one discourse feature to another. A further breakdown was also made, this time according to the individual discourse feature and case without considering speaker differences to determine whether the overall use of English and case-marking differed depending on the particular case or discourse feature.

The next set of figures calculated was simply a breakdown of the preceding set according to speaker without regard to case (that is, amalgamating the totals for all cases) and according to the discourse features (preceding false start, preceding pause, flag, ratification marker etc.).¹⁶

The totals were then broken down once more by amalgamating all speakers and determining the totals according to case only for each discourse feature.

A final summarized set of totals for each feature combined for all speakers and all cases was also calculated in order to get a global view of 1) the degree of English-origin nouns and 2) the degree of case-marking on those nouns in the vicinity of each discourse feature. These will be discussed in Chapter 4 below.

¹⁶ The same calculations were made based on the *absence* of a preceding false start, preceding pause, flag etc.

Chapter III

THE NOMINAL SYSTEM OF FINNISH

3.1 Case Structure of Nominals

As mentioned above, the majority of the English-origin material in these data was found to consist of nouns. While all studies (for example, Haugen (1956), Weinreich (1968)) appear to concur that nouns are the most frequently borrowed part of speech, it is not clear whether all the single nouns in this corpus are loanwords, or whether some may in fact be code-switches. Because of their ambiguous status, determination of the status of these nouns is of interest for both a theory of borrowing and of code-switching. Because Finnish, unlike English, has a system of obligatory case-marking on nouns, which, when present, would identify these nouns as unambiguously Finnish, I propose to use this morphological criterion to aid in the identification of the ambiguous items. In this chapter I briefly outline the relevant details of the Finnish nominal system, focusing on structural areas where it differs from English.

The nominal as well as the verbal system consist of a system of obligatory inflections added to the stem. While this in itself is not an uncommon feature, Finnish, with fifteen, has more case endings than the Indo-European languages (German for example has four and English only one, the genitive). The case markers have various functions and meanings, some of them corresponding to English prepositions.

Other inflections carry meanings which in Indo-European languages are often expressed by independent words or expressions, e.g. possessive suffixes where English has possessive pronouns. English also has postpositions which correspond to English

prepositions¹⁷ and enclitic particles with non-syntactic functions which often correspond to intonation in other languages.

Unlike English, Finnish does not have articles, though as we will see, other elements (e.g. demonstrative pronouns and adverbs) may fulfill that function, particularly in the vicinity of English-origin material. The function of articles is often replaced by word order in Finnish.

Though Finnish does not have a system of grammatical gender, there is concord in number and case between attributes (adjectives, pronouns and numerals) and head-words. Inflections are suffixed to the stem in the order: number, case, possessive, emphatic or interrogative particle.

3.1.1 The Nominative

The nominative ~~singular~~ is the unmarked form of the noun. The nominative plural marker is *-t* and is affixed to the inflectional stem which may or may not be identical to the nominative singular depending on the particular declension.

3.1.1.1 The Nominative as Subject

A noun in subject position appears in the nominative case when it is a singular count noun. If this noun occurs in sentence-initial position, (as in (1)) it expresses definite meaning; at the end of the sentence it expresses indefinite meaning (as in (2)).¹⁸

¹⁷ Finnish also has a limited set of prepositions, which I examine in more detail below.

¹⁸ Unless otherwise indicated, the examples given below are taken from Karlsson (1983).

- 1) Auto on kadulla.
Car-N. is street-AD.

The car is in the street.

- 2) Kadulla on auto.
street-AD. is car-N.

There is a car in the street.

However, in a sentence with a subject and a direct object, if both are count nouns, the sentence may be ambiguous with regard to definiteness; see example (3).

- 3) Mies osti kirjan.
Man-N. bought book-G.

A/The man bought a/the book.

If the word order is reversed, as in example (4), (object in sentence-initial and subject in sentence-final position), the object is interpreted as definite (known) and the subject as indefinite (unknown or not referred to previously).

- 4) Kirjan osti mies.
Book-G. bought man-N.

A man bought the book. (The book was bought
by a man.)

This is unlike English which relies on the article *the*, *a* to express definiteness or indefiniteness.

According to the Equivalence Constraint, a code-switch would be permissible at a point in the sentence in the vicinity of which the word orders of both languages are congruent. Given the OVS word order, there are no points in a sentence such as (4) where a code-switch could possibly occur if the Equivalence Constraint is to be upheld. An English-origin noun could, however, be substituted for the Finnish noun providing it was inflected for the required case (i.e. morphologically integrated).

The subject is always in the nominative if a) the verb has an object or b) the verb is *olla* 'to be' and a complement follows.

Mass nouns with a definite meaning (i.e. total or limited) take the nominative singular, i.e. zero case-marker. This usually corresponds to the unmarked English noun, thus a code-switch would be permissible as long as the English article + noun is used to replace the Finnish noun + case marker. Examples of mass nouns in the nominative case are seen in examples (5)-(7).

- 5) Kahvi on kupissa.
 coffee-N. is cup-IN.
 ✓ The coffee is in the cup.
- 6) Liha maksaa paljon.
 meat-N. costs a lot
 (The) meat is expensive.
- 7) Tämâ on Pekan maito.
 this is Pekka-G. milk-N.
 This is Pekka's milk.

The plural subject when it is a count noun (usually definite in English) is in the nominative plural and occurs initially in the sentence with the verb being in the third person plural just as in English. This can be seen in examples (8) and (9). Here there are no real problems for code-switching in terms of the Equivalence Constraint.

- 8) Autot ovat kadulla.
 cars are street-AD.
 The cars are in the street.
- 9) Lapset ovat täällä.
 children-N. are here-AD.
 The children are here.

3.1.1.2 The Predicate Nominative

A predicate nominative (i.e. a complement of *olla* 'to be') when singular and count referring to a definite quantity is always in the nominative. This structure is parallel to English except for the lack of an article in Finnish and therefore allows code-switching before or after the verb as long as the English article occurs with the English noun.

- 10) Keijo on mies.
K. is man-N.

Keijo is a man.

- 11) Olavi on lääkäri.
O. is doctor-N.

Olavi is a doctor.

3.1.1.3 The Nominative as direct object

If the direct object is a plural noun it takes the form of the nominative plural (-t); e.g. (12) and (13). Given that the nominative plural is the basic plural form this is equivalent to English structure and thus does not cause major problems for the Equivalence Constraint.

If a direct object is a plural count noun expressing a definite quantity and occurs with a verb expressing a resultative action, it will appear in the nominative plural as in (12) and (13).

- 12) Minä avasin ikkunat.
I opened-I windows-PL.

I opened the windows.

- 13) Näen vierat.
I see guests-N.

I see the guests.

When a singular direct object occurs with a verb in the first or second person imperative or with a passive verb or with certain verbs of obligation, it takes the nominative singular form.

- 14) imper. Osta kirja.
buy book-N.

Buy a book.

- 15) pass. Kirja vietiin pois.
book-N. was taken away

The book was taken away.

- 16) oblig. Minun t ytyy ostaa kirja.
I-G. must to buy, book-N.

I must buy a book.

The nominative singular direct object does not cause serious problems for the Equivalence Constraint.

3.1.2 The Partitive

The partitive singular case-marker has one of three possible forms: *-a/- *, *-ta/-t *, *-tta/-tt *. The partitive plural also has an *-a/- * or *-i/-i * case marker which is preceded by the plural marker *-i-* (*-j-* intervocalically).¹⁹

3.1.2.1 The partitive as subject

The subject of a sentence appears in the partitive singular case when it is a mass, abstract or collective noun and expresses an indefinite quantity. In a sentence which has a partitive subject, the subject is usually at the end of the sentence and the finite verb is always in the third person singular as in examples (17) and (18). In English, on the other hand, the partitive subject is usually expressed by a lone noun, or with 'some', and takes the usual position at the beginning of the sentence, or occurs in an existential 'there is' construction.

¹⁹ This is also the plural marker for all cases with the exception of the nominative

- 17) Purkissa on leipää.
tin-IN. is bread-P.

There is (some) bread in the tin.

- 18) Torille tuli kansaa.
market-AL. came people-P.

People came to the market place.

This causes some problems for code-switching since a literal translation of *Purkissa on leipää* would be 'In the tin is some bread' which, though not ungrammatical, is highly unnatural in spoken English. This contrasts with the nominative subject (as in (1)) where the subject has definite meaning and occurs at the beginning of the sentence.

A plural count noun in subject position which expresses an indefinite quantity appears in the partitive plural. As with the mass nouns (examples (17) and (18)), the subject will generally fall at the end of the sentence and the verb will appear in the third person singular as in examples (19) and (20). The English equivalent of such a sentence would require a 'there are' construction.

- 19) Kadulla on autoja.
street-AD. is cars-P.

There are cars in the street.

- 20) Täällä on pieniä lapsia.
here-AD. is small-PL-P. children-P.

There are small children here.

Here there are serious problems for code-switching. Not only is the Finnish word order sometimes awkward in English as in (19) but the fact that a partitive subject requires a third person *singular* verb means that code-switching would violate the Equivalence Constraint.

The partitive is also used to express the subject when the existence of the entity referred to is completely denied, in other words in most negative sentences (e.g. (21)). As in example (19) above, the word order is undesirable if not unacceptable in English

and creates definite problems for the Equivalence Constraint. This construction (see (21)) contrasts with constructions such as that in example (22).

- 21) Kadulla ei ole autoa.
street-AD. not is car-P.

There is no car in the street.

The nominative, in contrast, is used when the existence of the entity is not completely denied but only its being in a particular place.

- 22) Auto ei ole kadulla.
car-N. not is street-AD.

The car is not in the street.

The partitive is also sometimes used to express a count noun in interrogative sentences expecting a negative answer as illustrated in e.g. 23).

- 23) Onko teillä tätä kirjaa?
is-INT. you-AD. this-P. book-P.

Do you have this book?

A noun complement of the verb *olla*, 'to be', is in the partitive when it expresses an indefinite quantity of a substance, group or species. This can be seen in examples 24)-28).

- 24) Oletteko ruotsalaisia?
Are-you-INT. Swede-PL-P.
Are you (pl.) Swedish?

- 25) He ovat naisia.
They are women-P.
They are women.

- 26) Tuoli on puuta.
Chair-N. is wood-P.
The chair is (made) of wood.

- 27) Aika on rahaa.
Time-N. is money-P.
Time is money.

- 28) Tämä on punaviiniä.
this-N. is red wine-P.
This is red wine.

The partitive singular is used after numerals (except *yksi* 'one'). The partitive follows other expressions of quantity as well: generally partitive singular with mass nouns and partitive plural with count nouns.

3.1.2.2 The partitive as direct object

The partitive is used to express the object in a negative sentence regardless of whether the meaning of the object is definite or indefinite (e.g. 29).

- 29) *Silja ei juonut maitoa.*
Silja not drank milk-P.

Silja didn't drink the milk/any milk.

If the action expressed by the verb is "non-resultative" (i.e. does not lead to any "important" final result) the object is in the partitive as in the sentence:

- 30) *Hän kantoi kassia.*
he carried bag-P.

He was carrying a/the bag.

The non-resultative often corresponds to the progressive form of the verb in English (be+Ving).

When an object which is a mass noun or a plural noun expresses an indefinite, non-limited quantity, it is in the partitive, which corresponds in English to (indefinite) articles or 'some'. This use of the partitive as direct object is in contrast to the nominative plural direct object (see (13) above) and the genitive singular direct object (see (47) below).

- 33) *Ostan jäätelöä.*
I buy ice cream-P.

I'll buy some ice cream.

- 34) *Näen vieraita.*
I see guests-P.

I see (some) guests.

Verbs of emotion (such as those in (31) and (32)), among others, because they are intrinsically non-resultative, require that the object be in the partitive.

- 31) *Minä rakastan sinua.*
I love-I you-P.

I love you.

- 32) *Pelkäätkö koiria?*
fear-you-INT. dogs-P.

Are you afraid of dogs?

3.1.3 The Genitive

The genitive singular case marker is *-n* while the genitive plural marker is *-den*, *-en* or *-ten*. The genitive case typically marks the possessor, although it functions under certain conditions as the direct object. There are also genitive expressions which are typical of Finnish which might be expressed in other languages by prepositional or adjectival structures or by compound nouns, as in (35)-(41)).

Examples (35) and (41) are normally expressed in English with an *of* construction rather than with the English genitive form *'s*. Example (36) is similar but here English can also use an adjectival construction, i.e. *Helsinki University* in addition to the form *The University of Helsinki*. Similarly, in (37) and (39), the element which is adjectival in English is a possessive in Finnish. Example (38) is an instance expressed in English either by the possessive *of* or the genitive *'s* (e.g. the Soviet Union's foreign minister). Number (40) is a very common colloquial Finnish construction in which a person is referred to by his full name by expressing the family name in the possessive. This is clearly unlike English which always uses the given name followed by the family name.

- 35) *Turun kaupunki*
Turku-G. city-N.
The city of Turku

- 36) *Helsingin yliopisto*
Helsinki-G. university-N.
Helsinki University/The U. of Helsinki

- 37) englannin kieli
English-G. language-N.
the English language
- 38) Neuovostoliiton ulkoministeri
Soviet Union-G. foreign minister-N.
The foreign minister of the Soviet Union
- 39) Niemisen perhe
Niemenen-G. family
the Nieminen family
- 40) Virtasen Reino
Virtanen-G. R.
Reino Virtanen
- 41) maidon hinta
milk-G. price-N.
the price of milk

3.1.3.1 The Genitive as Subject

With some verbs of necessity or obligation (*täytyy* 'must', *on pakko* 'have to', etc.) the subject takes the genitive. This is also the case with some verbs with modal meaning such as *kannattaa* 'be worth', *sopii* 'may', and *onnistuu* 'succeed'.²⁰

The subject of expressions like *on hyvä* 'be good', *on paha* 'be bad' and *on hauska* 'be nice' is also expressed by the genitive.

- 42) Minun on hyvä olla.
I-G. is good to be

I feel good.

The subjects of many participial and infinitival constructions such as those in 43)-45) also appear in the genitive.

²⁰ Traditional Finnish grammars have often analysed these genitives as dative adverbials rather than as subjects (Karlsson 1983:90).

- 43) Talven tullessa ...
 Winter-G. comes-2ND INF. .
 When winter comes ...
- 44) Kesân tultua ...
 Spring-G.come-PAST PART. PASS.,PART. SING.
 Spring having come ...
- 45) Nâin Ullan tulevan
 Saw-I Ulla-G. come-PRES. PART. ACT.,GEN. SING.
 I saw Ulla coming ...

3.1.3.2 The Genitive as direct object

When the action of the verb has led to an important/final result (ie. is resultative) as in (46), the singular direct object is in the partitive case.

- 46) Hân kantoi kassin kotiin.
 he carried bag-G. home-IL.

He carried a/the bag home.

In such an instance English is more specific regarding both the aspect of the verb and the definiteness of the noun. This usage applies both to verbs that are intrinsically resultative and those which express an non-resultative action although not intrinsically so (cf. (30)).

If the direct object in an affirmative sentence is a singular count noun, expresses a definite or limited quantity, and occurs in conjunction with a verb expressing resultative action, it will appear in the genitive singular. In example (47) the direct object expresses a definite amount and is in the genitive in contrast with example (33) above where the direct object expresses an indefinite amount and is therefore in the partitive.

- 47) Ostan jäätelôn.
 I buy ice cream-G.
 I'll buy an/the ice cream.

3.1.4 The Accusative

The accusative in Finnish is not represented by a single morphological case form, but rather by a set of different case markers which are used to indicate the direct object of the sentence. These cases are the nominative singular (the basic unmarked form of the noun), the genitive singular (which ends in *-n*), the nominative plural (ending in *-t*), and the so-called *-t* accusative which applies only to the personal pronouns. The *-t* accusative therefore, is the only true accusative form. These forms are as follows:

ACCUSATIVE PERSONAL PRONOUNS

minut	me
sinut	you (sg.)
hänet	her/him
meidät	us
teidät	you (pl.)
heidät	them

Note that while an English direct object personal pronoun will *always* be in the object case, in Finnish they may take the accusative or the partitive.

In addition to these "accusative" forms being used to express the direct object, the partitive case can also be used to express the direct object as discussed in section 3.1.3.2. The accusative is sometimes seen as being in opposition to the partitive direct object (Karlsson 1983:94).

The partitive can always take precedence over the accusative; in a given sentence, if any of the conditions hold which call for the use of the partitive then the direct object must be in the partitive case. Only if none of the partitive conditions are fulfilled, does the object take one of the "accusative" forms.

3.1.5 Local Cases

The remaining Finnish cases include the six "local" cases: inessive which has the case marker *-ssa/-ssä*, adessive (*-lla/-llä*), elative (*-sta/-stä*), ablative (*-lta/-ltä*), illative (*-Vn/-hVn/-seen*) and allative (*-lle*). These cases express location and direction toward

and away from. The local case system has a two dimensional structure, one being the 'inner' versus 'outer' distinction and the other being the distinction between movement towards, movement away from and static (Table 3) .

Table 3: Inflections for "local" cases

	inside	outside
static	inessive -ssa/-ssâ	adessive -lla/-llâ
away from	elative -sta/-stâ	ablative -lta/-ltâ
towards	illative -Vn	allative -lle

Besides their locative functions, these six cases (inessive, adessive, elative, ablative, illative, allative) may also function as expressions of time, reason, instrument or manner. As with all the Finnish cases, case marking is obligatory.

For the most part, the local case forms are expressed in English by prepositional phrases. Since English has prepositions and Finnish has suffixed case markers, no code-switch is possible within the prepositional phrase and any English-origin noun inflected with a Finnish case marker would have to be a borrowing according to the free morpheme constraint.

3.1.6 Other cases

The other cases are the essive, translative, abessive, comitative and instructive. Essive expresses a temporary state or function or conditions or causes as well as expressions of time. Translative is used to express a state, function, property or position into which something changes. It is also used in expressions of time. The abessive, comitative and instructive cases are rare, particularly the latter two which occur mainly in fixed expressions. The abessive case has the meaning 'without' and is also rare since the preposition *ilman* 'without' is usually used instead. Since these three cases are extremely rare if not non-existent in our corpus, we will not deal further with them here.

3.1.7 Number

The Finnish number system consists of singular and plural. The singular form of the noun is the unmarked nominative singular. Nominative plural is indicated by *-t* suffixed to the stem in the nominative and by *-i-* in all other cases. This *-i-* is subject to change by a morphophonological rule which changes *-i-* to *-j-* intervocalically.²¹ Thus one criterion for morphological adaptation of English nouns would be its affixation by Finnish *-t*, *-i* or English *-s*.

Case	Singular	
Nominative	talo	(the) house
Genitive	talon	of the house
Partitive	taloa	house (part.)
Inessive	talossa	in the house
Elative	talosta	out of the house
Illative	taloon	into the house
Adessive	talolla	on the house
Ablative	talolta	off the house
Allative	talolle	onto the house
Essive	talona	house (state)
Translative	taloksi	house (change of state)

²¹ Certain irregular types of nouns undergo additional morpho-phonological changes in the formation of plural and some other forms.

Case	Plural	
Nominative	talot	(the) houses
Genitive	talojen	of the houses
Partitive	taloja	the houses (part.)
Inessive	taloissa	in the houses
Elicative	taloista	out of the houses
Illative	taloihin	into the houses
Adessive	taloilla	on the houses
Ablative	taloilta	off the houses
Allative	taloille	onto the houses
Essive	taloina	houses (state)
Translative	taloiksi	houses (change of state)

3.2 Postpositions & Prepositions

English prepositions correspond in Finnish to case-markers, postpositions or prepositions. It is mainly the local cases, which express place and direction, which take the place of English prepositions. For example the English prepositions *in, on, into, from, off, out of, onto, at, by, about* and *to* can all be expressed by local cases. *Of*, depending on the context, can be expressed by the genitive, the partitive, or by the local cases elative or ablative, and *as* is sometimes expressed by the essive or translative. Most other English prepositions find their Finnish equivalents in postpositions and prepositions. Although there are some prepositions, Finnish is mainly postpositional. Most postpositions and a few prepositions require that the noun they modify be in the genitive case as can be seen in examples (48)-(50) below.

48) pöydän alla
table-G. under

under the table

49) äidin luo
mother-G. to

to mother

- 50) *lâpi ikkunan-*
 through window-G.
 through the window

However, a small number of both prepositions and postpositions require that the partitive case as shown in (51) - (52).

- 51) *koulua vastapäätä*
 school-P. opposite
 opposite the school.

- 52) *vasten seinää*
 against wall-P.
 against the wall

Because English has only prepositions and because a case marker is also required with both prepositions and postpositions, a code-switch within either a Finnish postpositional or prepositional phrase is impossible according to the Equivalence Constraint.

3.3 Determiners

Finnish does not have articles. As was mentioned above, word order can sometimes be used to express that which is expressed by articles in English. Finnish does have a system of demonstratives which are similar to English in their degree of definiteness. These demonstratives are *tämä* 'this' and *tuota* 'that'. The pronoun *se* 'it' is also used demonstratively - primarily to refer to something previously mentioned. All three forms are fully declinable for all case markers.

3.4 Effects of Case-marking on Word Order/word order on case selection

The normal Finnish word order is SVO. However, word order can be altered so as to change not the meaning but the emphasis. Thus the speaker has a certain amount of freedom to choose a particular word order.

While Finnish and English sometimes have differing word orders, which, according to the Equivalence Constraint, makes code-switching impossible, in many instances Finnish and English have word orders which are basically parallel, with the only differences being those of the English article and Finnish case marker. There are certain situations in which the nominative is required in Finnish and English requires no determiner, creating a completely equivalent code-switch site. It is in these cases that it is not possible to distinguish instances of borrowing from instances of code-switching.

Chapter IV

RESULTS

4.1 Distribution of English-origin forms

Table 4 summarizes the distribution of incorporations from English in the corpus by category of form and speaker. Less than a quarter of the data (21.3%) is made up of intra-sentential code-switches, as in (1), a consequence, as I will suggest below, of the relative paucity of permissible code-switch sites (detailed in chapter 3), and the fact that the speakers in the sample cannot be said to be members of a bilingual community in which such code-switching constitutes a norm.

Table 4: Distribution of Bilingual Phenomena

Totals of bilingual forms for each speaker with each type of bilingual phenomenon expressed as a percentage of the total of all bilingual phenomena for that speaker.

Speaker	Intra-sentential Code-switches		Tags & Interjections		Single Lexical Items						Total
					Nouns		Adjectives		Verbs		
	No.	%	No.	%	No.	%	No.	%	No.	%	
Helle	116	28%	170	29%	247	43%	32	6%	16	3%	581
Elina	65	27%	13	6%	141	61%	15	6%	-	-	233
Airi	62	41%	18	12%	64	42%	9	6%	-	-	153
Aino	31	14%	12	6%	150	69%	17	8%	17	3%	217
Maija	25	37%	6	9%	26	39%	10	15%	-	-	67
Raija	14	19%	1	1%	53	71%	7	9%	-	-	75
Riitta	4	5%	3	4%	71	87%	3	4%	1	1%	82
Hilja	1	1%	2	3%	61	80%	12	16%	-	-	76
Total	317	21.3%	225	15.1%	813	54.7%	105	7%	24	1.6%	1484

1) Intra-sentential code-switches:

- a) niin sano että tulla tänne
so say-IMP. that to come here

ettâ I'm very sick
that

so say to come here, that I'm very sick.
(16b-412)

- b) I don't know missâ ne on ympäri
where they is around

I don't know whereabouts they are.
(9a-280)

An additional 15% is constituted by tags, as in (2) and interjections, as in (3).

2) Tags:

- a) jos ei paikkaa noista paikoista saa
if not place-P. those-EL. / place-EL. get

niin ... too bad
so

if one doesn't get a place in those places
so ... too bad
(25b-417)

- b) Mutta en mâ viittinyt, no way
but not-I I bothered

But I'm not bothered, no way.
(9b-134)



3) Interjections:

- a) ei se kevättä nâe, my gosh kuinka
not it spring-P. see how

monta kevättä
many spring-P.

she won't see the spring, my gosh,
how many springs ...
(16b-066)

- b) jâi pois työstâ. Thank God.
left away job-EL.

Ja niin sitten ...
And so then ...

She left the job. Thank God. And so then ...
(2a-232)

The great majority (63.4%) of English-origin forms, however, are single lexical items, largely (86%) single nouns. I first examine the behaviour of the intra-sentential code-switches.

4.2 Intra-sentential code-switches

Nearly half (48.5%) of the instances I originally coded as intra-sentential code-switches were in fact examples of reported speech, as in (4), a device used quite regularly by some speakers.

4) Reported Speech:

- a) lääkäri sano että "when you go to
doctor said that

Finland, no funerals", ja mä sanoin
and I said-I

"Okay, no funerals".

The doctor said "when you go to Finland, no funerals", and I said "Okay no funerals".
(291-065)

- b) ja sano että "I never knew that you were
and said that

in the hospital".

and he said "I never knew that you were in
the hospital".
(291-036)

These pose no problem for the Equivalence Constraint, since in fact, they are actually switches between full sentences. Table 5 depicts the distribution of the remaining intra-sentential switches.

Table 5: Distribution of unambiguous code-switch types

	N	%
COMP + S	95	62
V + (object) NP	25	16
(subject) NP + VP	10	6
DEM + N	9	6
ADJ/ADV + NP	11	7
V + INFINITIVE	4	3
	154	100

Once again, by far the majority consists of switches between the complementizer *että* 'that', 'which', and the complement; also interpretable as a full sentence despite the weak syntactic link provided by the complementizer. The remainder all occur at syntactic boundaries where English and Finnish show congruent word order: between verb and object NP (16%) as in (5), between subject NP and VP (6%) as in (6), between demonstrative and noun²² (6%), as in (7), between adjective or adverb(ial) and noun phrase (7%) as in (8), or between verb and infinitive (3%), as in (9).

²² These are not single noun incorporations.

5) Switch between V and Object NP:

- a) mun vanhin on- nyt alkaa part-time
my oldest is now starts

nursing in intensive care.

My oldest is- is now starting part-time
nursing in intensive care.
(10b-237)

- b) yks on a policeman
one is

one is a policeman
(17b-431)

6) Switch between NP and VP:

- a) sen tuota titteli was abolished
it-G. um title-N.

Her title was abolished.
(2a-236)

- b) englantilaisia sairaanhoitaja jotka ... um
English-PL-P. nurses-P. who

... demonstrate or fight against the ruling.

English nurses who demonstrate or fight
against the ruling.
(20b-064)

7) Switch between demonstrative and Noun:

- a) kun tämä manager retired ja sitten
when this and then

when this manager retired and then ...
(9a-211)

- b) otta se pediatric or lastenhoitokokeet
take it paediatric exams.

to take the pediatric or pediatric exams.
(20b-043)

8) Switch between Adjective/Adverb & Noun Phrase:

- a) joka on oikein famous interior decorator
who is very

and now she ...

who is a very famous interior
decorator and now she ...
(9a-126)

- b) kahden kolmen kuukauden training
two-G. three-G. month-G.

period, then a raise

2-3 month training period, then a raise.
(27b-274)

9) Switch between Verb and Infinitive:

- a) mennä to fill up the application
to go

to go to fill up the application.
(11a-167)

- b) ja huutaa siellä to let it out
and yells there

and yells there to let it out.
(27b-327)

4.2.1 Individual patterns: code-switching

As can be seen from Table 4, three of the 8 speakers were responsible for over 78% of the total code-switches. For one of these speakers, Helle, code-switches represented only 20% of her own usage of English-origin material. This may be explained in part by the fact that Helle's husband is a Finnish Canadian and her resulting ties with the established Finnish Canadian community outside Ottawa where borrowing as opposed to code-switching is a community norm. Airi's use of code-switches accounted for 20% of the total code-switches and they were notable in that they were almost all

longish stretches of reported speech. However, they represented 41% in terms of her own use of bilingual phenomena. Elina was the third of the high users of code-switches: 27% of her own overall production. The two lowest users of code-switches were Riitta and Hilja who switched four times and one time respectively. In Hilja's case this can be explained by the fact that her English language skills are poor which would prevent her from code-switching effectively. Riitta, however, unlike Hilja, speaks excellent English. One can only surmise that her concern with speaking "good" Finnish deters her from code-switching. Riitta's four examples of code-switching represent only 5% of her total use of English-origin material. Aino, who is next lowest to Hilja in terms of bilingual ability, did not produce an especially large proportion of the code-switches, (10%) but they did account for 14% of her overall use of English-origin material. Although one might expect that she would not be able to code-switch proficiently and therefore would not attempt it, she does not seem to be concerned with her lack of fluency in English. She is clearly very used to speaking English regardless of how weak her language skills may be. In this she is unlike Hilja who seems to be very aware of her English language difficulties and does not attempt to make much use of English just as one would predict given her low English proficiency.

The other two speakers not yet mentioned with respect to code-switching, are perfectly fluent English speakers yet they too, make very little use of code-switching. It is clear for them as well as for Riitta particularly, that their use of code-switching is not a reflection of their bilingual ability. This is likely due to the fact that, for them, such bilingual behaviour does not constitute a community norm.

4.2.2 Individual Patterns: Tags and Interjections

Only 15% of the incorporations from English are made up by tags, a freely moveable category with no syntactic relation to the rest of the sentence. This is a relatively small number when compared with, e.g. the New York Puerto Rican community (Poplack 1980, 1981) where tag switching was found to be a device used by less fluent bilinguals, to allow them to engage in the code-switching mode without having to respect a grammaticality requirement, and avoided by balanced bilinguals. Among the Finnish-English informants, however, tag switching is by no means the domain of non-fluent bilinguals. For the least English-proficient speakers in the corpus, Hilja and Aino, they do not exceed more than 3% and 6% of their respective incorporations from English, proportions which are comparable to those of Elina, Maija and Riitta, all of whom are proficient speakers of English. Indeed, it is clear that tag-switching is not a common strategy among these informants either, not exceeding 12% of the data for any of the speakers but Helle, for whom they represent a third of her total incorporations from English. Given that Helle along with Airi and Maija, are the only speakers showing clear preferences for English usage in categories other than that of the single noun, and all have comparable bilingual abilities, Helle's predominance of tag-switching may be explicable by the fact that she has the closest ties with the Finnish-Canadian community, and may thus be manifesting some of those speech patterns. In fact, the majority of her tags consist of forms like *you know* (which represents 37% (64/170) of her tags) and *anyway*, (13% (23/170) of her total tags) which may be considered to have attained (stereotypical) loanword status in Canadian Finnish.

4.3 Individual Patterns of overall Bilingual usage

The figures in Table 4 to some extent reflect the bilingual proficiency of the speakers. Hilja for example, lived for many years in Montreal where there is an old and well-established Finnish community with which she was very involved. She normally speaks Finnish more often than English and her English skills appear to be quite weak. This is reflected in the fact that 96% of the English items in her speech were borrowings. That she produced only a single code-switch reflects of the fact that her bilingual skills are poor. Many of the borrowings she uses are established loanwords which are well known among Finnish Canadians. e.g. *highschool-u* 'high school' (4 occurrences), *basement-i* 'basement' (5 occurrences). Hilja was responsible for only 5% of all English material in the data, almost all which were borrowed nouns and adjectives.

The distribution is similar for Riitta; 91% of the English forms she uses are borrowings, 5% are code-switches and 4% tags or interjections. Moreover, Riitta's borrowed nouns (even though they are 92% of her English usage) account for only 9% of all borrowed nouns. Again, Riitta's concern with maintaining the "purity" of her Finnish, in spite of her fluency in both languages, may be a factor that discourages her from using English-origin forms in general but allows her to use commonly occurring loanwords or other non-translatable borrowings.

Raija's use of English material was distributed among 80% borrowings, 19% code-switches and 1% (1 instance) tags and interjections. In all these made up only 5% of the total corpus.

Maija's use of English represented only 5% of the total data. Her use of English is broken down into 37% code-switches (higher than all but one speaker), 9% tags and interjections and 54% borrowings. The high rate of code-switching is perhaps related to the fact that Maija gave the impression that she would have been more comfortable speaking English.

Aino's 217 English forms amount to 15% of the English data (making her the third largest user of English items). Borrowings make up 80% of this English material which is really not surprising considering Aino's background. Although she has been in Canada for 55 years, she has never learned to speak English fluently. When she first immigrated to Canada she spent a year in Montreal where there was a very tightly-knit Finnish immigrant community. During her early years in Ottawa she was also involved in the Finnish community. This seems to be reflected in her ample use of English loan-words which are well-established in Canadian Finnish such as *house-i* 'house', *caar-a* 'car', *hospitaal-i* 'hospital', *rooming house-i* 'rooming house', etc. While there is no true Finnish speech community in Ottawa, those speakers who have had more contact with the greater Finnish community in Canada and the United States are clearly aware that borrowing constitutes an accepted norm in the established Finnish-Canadian speech community.

Airi's use of single lexical English-origin items makes up only 10% of the overall data but her use of code-switches accounts for 20% of all code-switches in the corpus. These code-switches however were mainly (longish stretches of) reported speech. Of her 153 occurrences of English material, 48% were borrowings, 12% tags and interjections and 41% code-switches. This is the highest percentage of code-switching for any one speaker.

Elina produced 233 of the English-origin forms in the corpus which represents 16% of the total. Sixty-seven (67%) of these were borrowings, 6% tags and interjections and 27% were code-switches. Elina also gave the impression that she would have been happier speaking English.

The subject who made the most use of English-origin material was Helle. Looking at her data alone, of the English forms she used 43% were nouns, 29% were tags and interjections, 20% were code-switches, 6% single adjectives and 3% single verbs

(totalling 51% single lexical items). Of the eight subjects, Helle is the most outgoing which might account (at least in part) for her higher rate of English usage.

4.4 English-origin nominals

The unambiguous cases of code-switching involve multi-word fragments of English, usually including English function words, and never containing any Finnish morphology. As mentioned earlier, however, the majority of English-origin forms in the corpus are not contained in unambiguous code-switches, but in single lexical items. I concentrate here on the behaviour of the single nouns, which account for the largest part of the single English-origin forms, and whose status as code-switches or borrowings I propose to investigate, using the morphological criterion of case-marking as an indicator that these nouns are behaving like native Finnish lexical items. I detailed in chapter 3 the conditions for obligatory case-marking of Finnish nouns. Indeed, the results of my analysis show that all native Finnish nouns in the corpus were categorically inflected for the appropriate case. In this, the informants who constitute this sample differ from those studied by Larmouth (1974), who reports absence of case-markers on Finnish nouns among four generations of Finnish speakers in Minnesota (including first-generation Finns, like my sample members). He ascribes this to interference from English. Lehtinen (1966) reports similar findings which she likewise attributes to English influence.

The English-origin nouns, on the other hand, are not categorically inflected, even when case-marking would be required were they uttered in Finnish (i.e. in cases other than the nominative); indeed, an initial examination of the data shows them to be case-marked less than half (46%) of the time.

Examination of the data shows that rates of case-marking on English-origin nouns vary according to the speaker, the case, and most important, the presence of certain discourse phenomena. I discuss each of these factors in turn in sections 4.5 - 4.7 below.

Among the examples which are clear-cut instances of code-switching there are no violations of the equivalence and free morpheme constraints. However, among the lone English-origin nouns are many instances of what might be considered violations of the code-switching constraints. These violations are concentrated in two major types of construction: 1) those corresponding to English prepositional or Finnish postpositional phrases and 2) those corresponding to English NPs which would require articles according to English, but not Finnish grammatical rules. They take the following form: for the constructions in 1) we find English nouns inflected with Finnish case markers as in (10) and to a lesser extent, lone English nouns (i.e. with no preposition) as in (11). Similarly, for the constructions in (2) we find English-origin nouns with Finnish case-marking as in (12), and others with no case marker, but without the required article, as in (13).

- 10) ja hänen tyttöystävänsä flat-issā
and her girlfriend-G-3 POSS. -IN.
and in her girlfriend's flat.
(19a-388)

- 11) Mä sanoin että mä menen interview-0
I said-I that I go-I
I said that I'm going to an interview.
(10a-134)

- 12) Misis K. oli housekeeper-inā
Mrs. was -ES.
Mrs. K. was the housekeeper.
(9a-126)

- 13) mutta se oli se ... main artery-0 joka
 but it was it which
 meni tästä
 went here-EL.
 but it was the main artery which went from here
 (28a-342)

Thus we find that a large part of the English-origin material cannot be accounted for by the Equivalence Constraint. The fact that many of these words carry the correct Finnish case-marking suggests however, that they are not code-switches at all but rather result from nonce borrowing, a process which applies to the entire English nominal lexicon e.g. *flat, interview, housekeeper, main artery*.

4.5 Rate of Case-marking and Discourse Phenomena

A closer examination of the single lexical items showed that single-word English-origin material in stretches of Finnish discourse tended to be accompanied by an unusually high rate of discourse phenomena. For example the 'functional flagging' which was found to be prevalent among Ottawa-Hull French speakers (Poplack 1985) occurred very frequently. The most common such items occurring in the corpus were *semmonen* 'such' and *niin kuin*, 'like', as in (14).

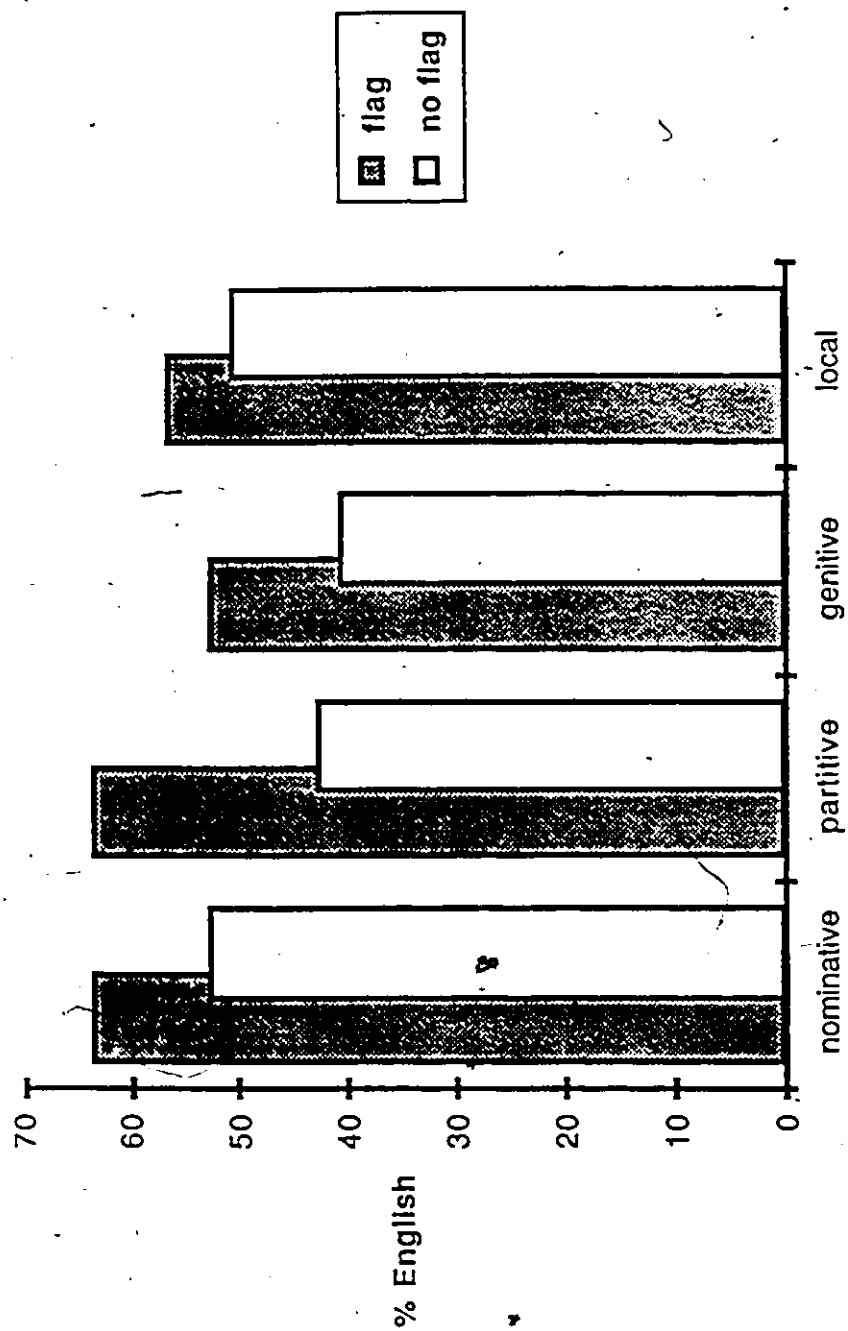
- 14)
 a) ainostaan oli niin kuin powder room ja ...
 only was like and
 there was only like a powder room and ...
 (13b-220)
 b) siitâ tuli semmonen substitute ehkâ
 it-P. came such-N. maybe
 it became like a substitute maybe
 (14a-355)

- c) mā luulen että ne asuu semmosessa um-
I think-I that they live such-IN.

garden home-issa
-IN.

I think that they live in like a garden home.
(20b-190)

These flags occurred most often immediately before English lexical items and in some cases seemed to be functioning only as a signalling device. Figure 1 shows that following a flag, an English noun is more likely to occur than a Finnish noun and that this increased frequency is independent of case-marking of the noun.

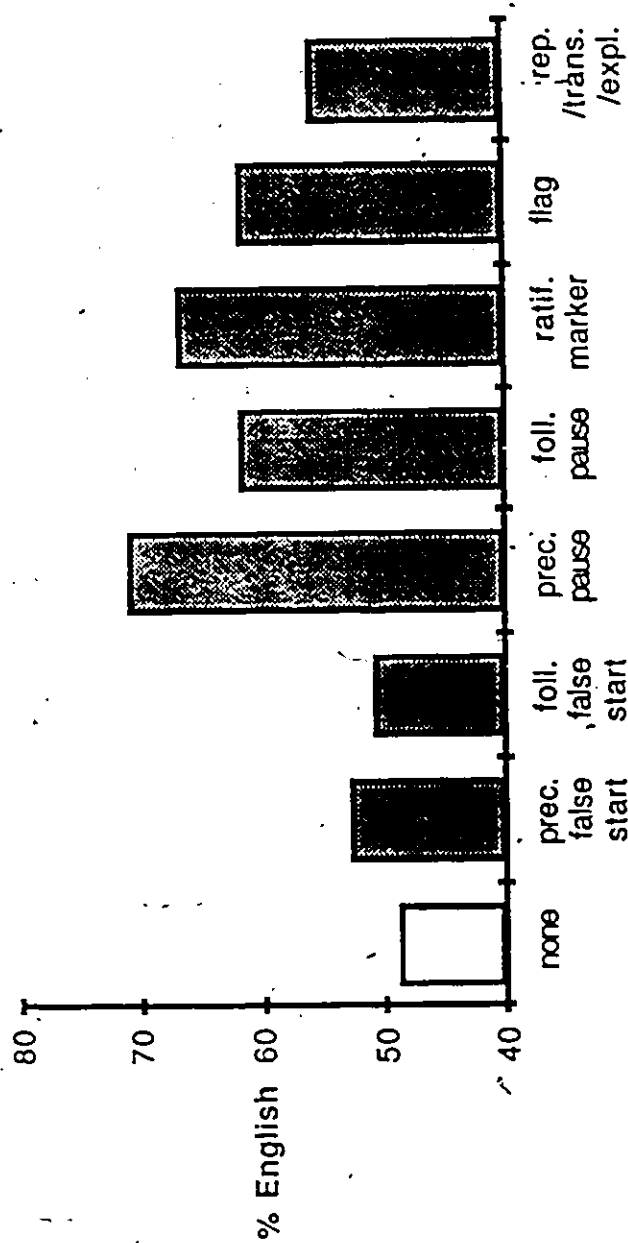


Percentage of nouns which are English, in the presence or absence of a flag

FIGURE 1

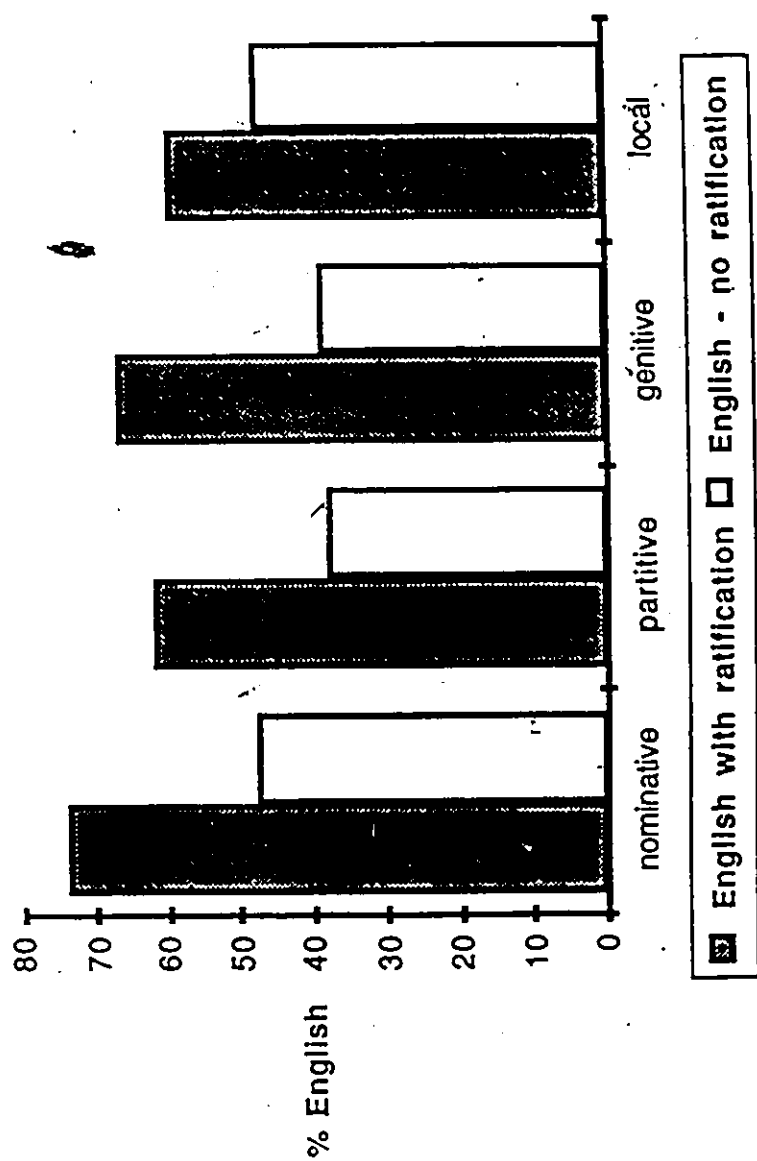
Ratification markers by the interlocutor (see Chapter 2) such as *yes*, *uh huh*, *joo*, *niin* were also found to be highly correlated with English material. Naturally these were interspersed throughout as is normal in conversation, but they were found to occur especially frequently after English-origin nominals. Figure 2 shows that English nouns precede ratification markers more often than Finnish nouns.

Various discourse phenomena i.e. false starts, pauses, repetitions, etc. (as discussed in Chapter 2), were studied for their relationship to the English-origin material with the result that 1) a preceding pause, 2) a ratification marker and 3) a flag were found to be the most commonly associated with single English-origin lexical items. (Figure 3).



The percentage of nouns which are English in the environment of various discourse features.

FIGURE 2



Percent of nouns which are English, by case, in the environment of ratification.

FIGURE 3

Poplack (1985) showed that among French-English bilinguals in Ottawa-Hull, this type of 'functional flagging' was used as a means of calling attention to a code-switch. In addition such flags often had the effect of breaking up the sentence to such an extent that a code-switching constraint was inapplicable. Among the Ottawa Finnish speakers, flagging is also used for rhetorical functions at times but also seems to be related to difficulties in integrating English items into Finnish sentences. These production difficulties are present in spite of the fact that all the informants are fluent speakers of Finnish and (with the exception of two) fluent speakers of English.

4.5.1 Constructions corresponding to English prepositional phrases

In an effort to account for the absence of case-marking on English-origin material, I examined all the English noun phrases which, if produced completely in English, would take the form of an English prepositional phrase. The corpus contained 246 instances of constituents which correspond to English prepositional phrases.²³ Ten (10) or 4% of the 246 instances occurred in contexts which included a Finnish preposition as in (15c), or postposition, as in (15a & b). Each of these 10 items was case-marked and could therefore be considered a nonce loan.

15) Postpositions and Prepositions:

- a) fridgin alla
fridge-G. under
Under the fridge.
(11a-036)
- b) visitia - varten
visit-P. for
For a visit.
(20b-030)
- c) ilman contractia
without contract-P.
Without a contract.
(11b-172)

²³ The nominatives were not included here or in the calculations in 4.5.2 because of the ambiguity in determining when case-marking does or does not occur.

Table 6 shows the distribution of the remaining 236 instances. Of these, 158 (67%) were found to be case-marked nonce loans (as in e.g. 16 below), the case-marking eliminating the English preposition requirement.

- 16) dry cleaner-iin
 -ILL.
 to the dry cleaner
 (29b-397)

Thus 78 instances remain which are analytically problematic. As can be seen in Table 6, the rate of discourse marking of case-less nouns is substantially higher (68%) than for case-marked nouns (40%) suggesting that these instances are problematic for the speaker and/or the hearer as well.

Table 6		
Relationship between flagging and case-marking of nouns requiring a preposition in English		
	+case-marker	-case-marker
flag/pause/ratification	40% (63/158)	68% (53/78)

Twenty-five (25) instances (10%) still remain which are neither case-marked nor flagged. In most of these cases however, there is some other discourse marker such as a following false start or following pause in the immediate vicinity.

Thus, we may consider these case-less nouns to be either flagged, non-smooth, single-word switches, or in some instances, poorly integrated nonce borrowings.

According to the Equivalence Constraint, no code-switch should occur after an English preposition; on the other hand, some switches *should* be found to occur before a prepositional phrase. Let us compare the behaviour of the unambiguous multiword

English sentence fragments i.e. code-switches, with that of the lone nouns. In fact, among these multiword fragments, there are 25 instances which require a preposition at the beginning of the switch and it is indeed present in two thirds of the cases. Those instances in which the preposition is missing are usually flagged, suggesting that, rather than low competence in English, the speakers were encountering production difficulties at the switch boundary. When prepositions were required *within* an English sentence fragment, they were present 98% of the time (see Table 7). Thus this is one indication of the different behaviour of loans and code-switches.

Table 7			
Distribution of English Prepositions before nonce loans, at code-switch boundaries and within code-switch fragments			
Presence of:	Before Nonce Loans	At Switch Boundary	Within English Fragment
Preposition	0% 0/236	64% 16/25	98% 39/40

4.5.2 Constructions requiring a determiner in English

I now turn to the set of noun phrase constructions which would require a determiner according to English rules. These determiners were never actually present except when required *within* English multiword sentence fragments.

The distribution of case-marking and discourse flagging of the single nouns is shown in Table 8.

Once again, there is a greater degree of discourse flagging of case-less items.

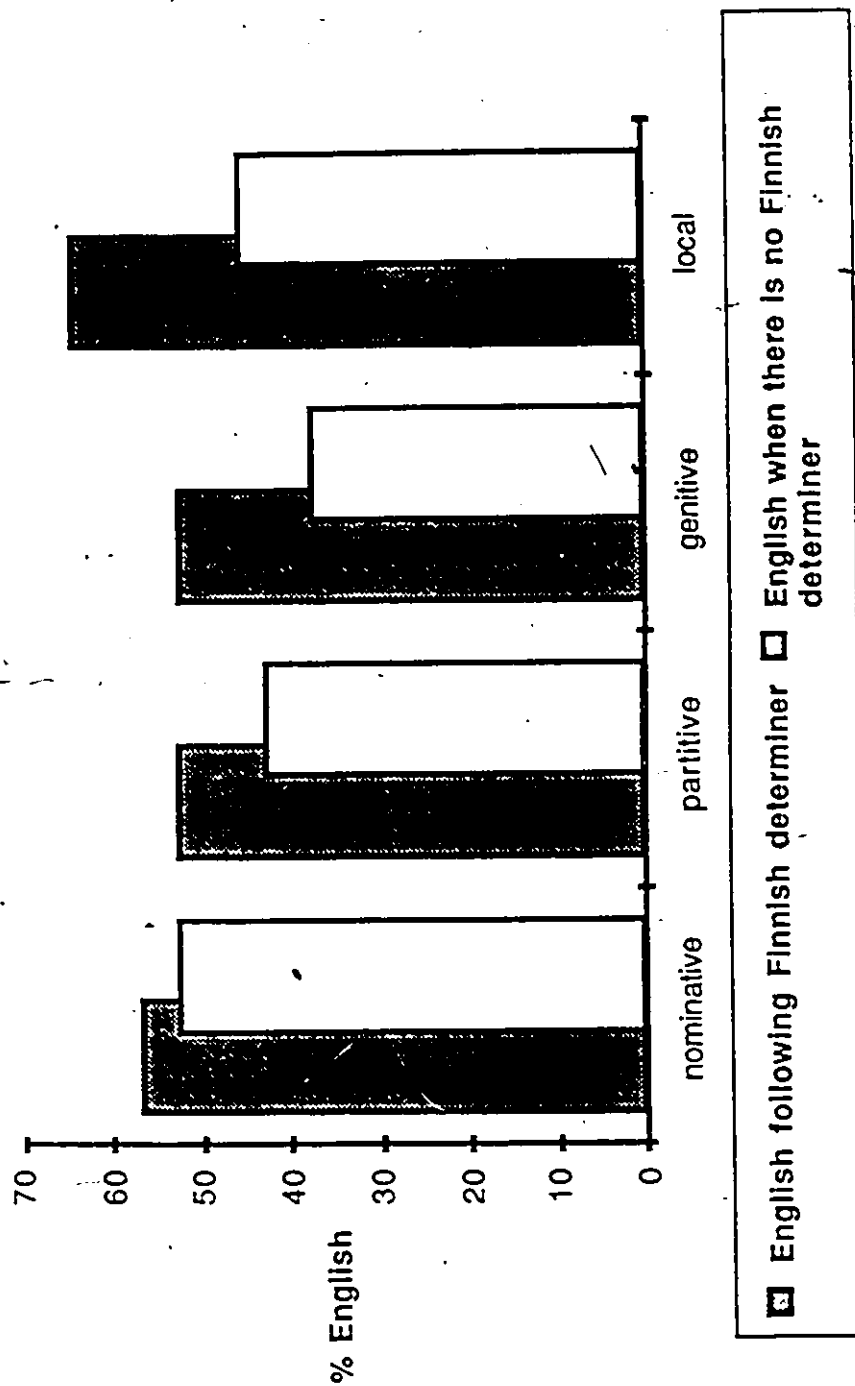
Table 8

Relationship between flagging and case-marking of nouns requiring a determiner in English

	+case-marker	-case-marker
flag/pause/ratification	38% (63/168)	66% (50/75)

A Finnish 'determiner' i.e. a demonstrative such as *se* 'it/this', *tämä* 'this', *tu* 'that' and (in the local cases) adverbs of place: *siellä* 'there', *tuolla* 'there' and *täällä* 'here', was found to precede the unflagged, caseless nouns 69% (17/25) of the time. The determiners, like the discourse markers, were especially frequent in the vicinity of English nouns. In these instances, their demonstrative (or locative) value is frequently diminished and they merely indicate definiteness (cf. also Lehtinen 1966:175). We can see that English nouns occur more frequently following a Finnish determiner than not (Figure 4). There is also a tendency for these nouns to be case-less (in all cases except the nominative which is assumed to bear a null case-marker).²⁴ These instances may therefore actually be code-switches rather than borrowings with the determiners acting as a flag or signal of an impending switch.

²⁴ Case-marking for the nominative case here refers only to the final vowel added to English words ending in a consonant



Use of Finnish determiners preceding English nouns

FIGURE 4

There were 243 noun phrases in the corpus which, according to English rules required a determiner. Of these 243 items 168 (69%) were case-marked. Of these, 63 (38%) were also accompanied by a flag, preceding pause or ratification marker and 58 (35%) were preceded by a Finnish determiner. Of the remaining 75 instances, which were not case-marked, 50 occur in conjunction with a flag, preceding pause or ratification marker. An additional 17 had no case-marker but were preceded by a Finnish determiner. The remaining 8 occurrences bear no case-markers and are without flags, preceding pauses or ratification markers, or Finnish determiners in their environment. However, most of these have some other discourse feature in their immediate environment.

As previously, I now compare the behaviour of these items with the unambiguous English sentence fragments (code-switches) as in Table 9. We find that at a code-switch boundary, if a determiner was required according to English rules, it was present 66% of the time. These determiners were divided between English (17%, 5/29) and Finnish (48%, 14/29) according to the switch site. (If the switch was between a determiner and a noun phrase the determiner is Finnish; if it is between a preceding category and a noun phrase the determiner is English.) However, *within* a stretch of English discourse, in 86% (48/56) of the cases in which the noun phrase required an English determiner according to English rules, it was in fact present.

We see from the above discussion that there are three distinct arguments in favour of the code-switching/borrowing distinction. (1) On nouns within stretches of English discourse which are clearly code-switches, there is complete absence of inflection, in contrast with the tendency for inflection to be present on the nouns which I have been discussing here. (2) While English prepositions and determiners are completely absent in the environment of these noun phrases, they are present as required in unambiguous English stretches. (3) Inflections and the code-switching flagging signals occur in

Table 9

Distribution of English Determiners before nonce loans, before code-switch boundaries and within code-switch fragments

Presence of:	Before Nonce Loans	At Switch Boundary	Within English Fragment
Determiner:			
Finnish	42% 101/243	48% 14/29	0% 0/56
English	0%	17% 5/29	86% 48/56

almost complementary distribution on these nouns. It would seem then that the nonce borrowing hypothesis is an ideal way of accounting for this behaviour.

Thus we see that although morphological marking of nonce loans is only variably present on these nouns, it is also clear that when the inflection is absent, the nouns tend to be preceded by discourse phenomena, indicating lack of smooth integration or production difficulties.

The question which now presents itself is why, since case marking is not variable in Finnish, should such differences exist between say, the Tamil-English bilingual materials studied by Sankoff, Poplack and Vanniarajan (1986), where despite monolingual variability in case-marking, English-origin nouns show a very high rate of case-marking, and these Finnish-English data which have only a 46% overall rate of case-marking of English-origin nouns, despite *categorical* case-marking of native Finnish materials, in accordance with Finnish grammatical rules, on the part of *all* of the speakers in the sample, regardless of their individual bilingual histories. The near complementary distribution of discourse phenomena and case-marking is one way to

account for this difference. Another way may reside in the behaviour of the nominatives. The global rate of case-marking reported above, considered nouns in the nominative case to be case-marked only if the speaker had opted to add the stem vowel to the English noun as in *house-i* and *hospitaal-i*. Although this has never to my knowledge been studied systematically, it is generally held that Finnish speakers tend to add this epenthetic vowel to established loanwords ending in a consonant, either to create a stem for further case-marking, or to integrate the borrowing into Finnish phonological patterns, or both. In fact, loanwords from other languages from which Finnish has borrowed copiously e.g. Swedish, generally have this stem vowel. However, given native Finnish rules for (null) nominative marking, any bare noun must in fact, be considered ambiguous as to its marking status. In this connection, it is notable that the nominative case is only marked, if we consider addition of the epenthetic vowel to be a case-marker, 28% of the time, by far the lowest rate of case-marking among the cases used with any degree of frequency (Table 10).

Table 10: Proportion of case-marking by case

Total Number of English-origin Nouns listed by case and amalgamated for all speakers with percentage case-marked by case.

	% Case-marked	N
Nominative - stem V (All Nom)	28 (100)	370
Partitive	46	134
Genitive	71	66
Local Cases:		
Inessive	68	121
Elativ	88	17
Illative	72	61
Adessive	70	20
Ablative	-	1
Allative	33	6
Essive	33	6
Translative	36	11
Total (N)	373 (641)*	813

* 641 represents the total number of case-marked nouns when null marking of the nominative is considered as an instance of marker presence.

Table 11

Percentage of case-marking overall as extracted from Table 10

Nom. = stem V	All Nominative
46%	79%

Given the fact that nominatives accounted for almost half of the single-noun data, the low rate of case-marking is particularly curious. Indeed, we might just as well consider that *all* of the nominatives are case-marked, since they are behaving exactly as they would in native Finnish. We might then ask why some of them, but not others, show a stem vowel. I suggest that it is precisely the fact that many of the borrowings we are dealing with here are not established but nonce, which may account for the failure to add a stem vowel to some nouns in the nominative case. While I am not in a position here to assess the degree to which the borrowings which form this corpus are widespread (in terms of the criteria for established loans discussed in Chapter 1), it may well be that the addition of the vowel is serving the same function of integrating borrowings into host language patterns as pro-verbs in Tamil (Sankoff, Poplack and Vanniarajan 1986) and the stress patterns in French (Poplack 1985). Once we consider all nouns in the nominative case, whether or not they include the stem vowel as having received ~~nominative~~ (i.e. null) case-marking, we find that the overall percentage of case-marking on English nominals rises dramatically, to 79%.

4.6 Rates of Case-marking according to case

Setting the nominatives aside, case-marking on English nouns nonetheless remains variable in the other cases as well (Table 10).

The inessive case had the required inflection 68% of the time and the illative, 72%. The other four local cases varied from 0% to 88% in rate of case-marking. However, this wide range was very likely due to a small number of tokens (from 1 to 20). Consequently, the figures were collapsed and the percentage calculated based on the totals for all local cases combined (i.e. inessive, adessive, illative, allative, ablative, elative). The results showed a 69% rate of case-marking for the six local cases.

The remaining two cases, the translative and essive, were inflected for case 36% and 33% of the time respectively. Again, these figures cannot be interpreted with any confidence due to the small numbers of tokens for these two cases (11 and 6 respectively).

Turning now to the most frequently used cases, we see the rate of genitive case-marking at 71%. The partitive however, is case-marked only 46% of the time.

Let us compare these results with those reported by Larmouth (1974) on absence of case-marking among four generations of Finns residing in Minnesota. Larmouth's data differ significantly from my own in that 1) He elicited controlled responses by asking informants to describe sketches drawn on a Magic Slate. There were also some free narrative and some translation questions. This is unlike the Ottawa sample which is based entirely on free conversation with an in-group member during which no direct elicitation took place. 2) His Minnesota informants span four generations of Finnish speakers (presumably only the first generation speakers were born in Finland) while the Ottawa informants have all immigrated to Canada as adults. The Minnesota speakers belong to a rural community which apparently has existed for at least four generations while the Ottawa group is composed of city dwellers living in a community

where Finnish speakers make up only a very tiny percentage of the total population. 3) Larmouth gives no information as to whether generations 2-4 speak Finnish or English as their first language and whether or not they (particularly generations 3 and 4) can be considered fluent bilinguals, while mine are all first generation. Finally, Larmouth provides no quantitative information about the rate or extent of variability in case-marking. Nonetheless his proposed analysis can provide a basis of comparison with my materials.

Larmouth advances three sorts of explanations for variability in case-marking: case-markers are deleted 1) especially in syntactic structures which are congruent with English, 2) in contexts where they are least likely to result in semantic loss, and 3) as a function of the degree of boundness of the case-marker to the noun. I examine each of these in turn.

4.6.1 Syntactic Structure

Larmouth claims that Finnish case markers are "elided" especially in syntactic structures strongly congruent with English. He suggests that English word order then becomes obligatory because of case marker elisions. The case markers are elided mainly by the later generations of his subjects. His examples show acceptable Finnish word order which is also usual English word order. Larmouth presents examples such as (17) below which suggests that first generation (G1) speakers always used the required partitive inflection: *omenaa* while the the third and fourth generation speakers (G3 and G4) never did: *omena*.

17.)

G1. Poika syö omenaa.
boy-N. eats apple-P.
The boy is eating an apple.

G2. Poika syö omena(a).

G3. Poika syö omena.

G4. Poika syö omena.

(Larmouth 1974)

Larmouth's examples are different from those in the Ottawa corpus in that they do not include English-origin material (with the exception of several very well-established loanwords). Consequently, it is not entirely clear whether his speaker's reasons for omitting case markers are the same as the Ottawa speakers' (who *never* omitted a case marker from a Finnish noun).

4.6.2 -Semantic Loss

However, Larmouth points out (p.358) that in another example (18 below) the elision of the ablative case-marker from "kaivo" does not "result in anything especially dramatic".²⁵

- 18)
- G1. Kaivolta puuta vesi.
well-AB lacks water-N
The well lacks water.
 - G2. Kaivolta puutuu vesi.
 - G3. Kaivo puutua vesi.
 - G4. Kaivo puutua vesi.

In other words the sentence is still fully comprehensible even without the case-marker because the hearer can easily deduce the intended meaning even without it.

He found the partitive to be very vulnerable to interference. This parallels the Ottawa speakers' use of partitive case-marking of English-origin nouns which was only 46%. This is perhaps related to the fact that much of the time, from the point of view of English rules, the partitive inflection does not add any information that the hearer does not already have. On the other hand, if a local case marker is omitted, the hearer might assume the missing case marker to be one having the opposite meaning of what the speaker intended. For example, in the case of an omitted illative case marker which has the meaning of 'movement into', the hearer might interpret the sentence as missing an elative case marker which has the meaning 'movement out of'. The

²⁵ The verb forms cited in this example are also anomalous although Larmouth makes no mention of this.

result would be a misinterpretation of the sentence to give it the opposite meaning of that intended. That would explain our high (69%) marking rate of local cases. With the partitive case such a misinterpretation would be much less likely to occur.

4.6.3 Boundness of Case-marker

Larmouth rates nouns (as well as other parts of speech) according to how strongly individual case-markers are bound to the stem. He claims that for nouns the nominative case is strongly bound. This is basically self-evident since the nominative singular is the unmarked form of the noun and the case-marker which on the surface is nonexistent, is, in fact, inextricably bound to the stem. If a Finnish noun requires the nominative singular case-marker it is necessarily case-marked by virtue of the fact that the noun is present.²⁶

Larmouth also rates the genitive case as strongly bound but only where it is "exactly congruent to the English inflected genitive" (p. 366). Larmouth found that in other environments the genitive had only a weak resistance to interference - a fact which he suggests indicates the significance of 'syntactic congruence'. In the Ottawa corpus, those genitive forms which represented 'true' possessives (although small in number) were case-marked 94% of the time.²⁷ Overall the genitive case (including direct object genitives) was case-marked 71% of the time.

The accusative which Larmouth also found to be vulnerable to interference, was not compared to the Ottawa data since the calculations made on this data were based on morphological case rather than syntactic function. Therefore, because the genitive

²⁶ This of course, is not true of the nominative plural and Larmouth does not give examples in which a noun is not inflected for the required nominative plural inflection. It does seem unlikely that some form of the plural marker would not be present on a noun which requires plural marking.

²⁷ Because the Ottawa data were analysed according to morphological case rather than syntactic function, many instances of direct objects were included with the genitive category. In this case however it was possible to extract the 'true' genitives (i.e. indicating possessor).

Table 12: Case-marking of English-origin nouns

Comparison of 'boundness' of case-markers (Larmouth) with actual rates of case-marking of English-origin Nouns in the Ottawa Corpus

Case	Larmouth Boundness of Nouns	% case-marking of English- origin nouns
Nominative	strong	100%
Genitive	strong	94%
Ablative	strong	--
Elative	moderate	88%
Illative	moderate	72%
Adessive	moderate	70%
Inessive	moderate	68%
Partitive	weak	46%
Allative	weak	33%
Accusative	weak	n/a
Translative	--	36%
Essive	--	33%

(and nominative) markers sometimes indicate accusative case, the figures for the accusative are bound up in calculations for the nominative and genitive. Consequently, the results for the accusative could not be easily extracted and I had no basis for comparison with Larmouth's accusative results.

Larmouth rates the six local cases from weak to moderate to strong in terms of their resistance to interference. In the Ottawa corpus, with the exception of the ablative case (for which there is very sparse data) case-marking varies from 33% for the allative to 88% for the elative case.

A major problem with Larmouth's work is that there is no quantitative component which makes it very difficult to evaluate or compare his findings with other results. However, in spite of this, the rates of case-marking in the Ottawa data compare very closely with Larmouth's ratings of degree of boundness. As can be seen in Table 12,

the cases which, according to Larmouth, are strongly resistant to interference are highly case-marked. The exception is the ablative for which there is too little data to compare. Likewise those cases which he found to be moderately bound (inessive, adessive, illative and allative) are case-marked 68%-88%. The partitive and allative are case-marked 46% and 33% respectively; Larmouth found these to be the least resistant to interference.

4.6.4 Case-marking as a function of frequency of case

All the nouns (i.e. both Finnish and English) were considered in order to determine the frequency with which the various cases occur, under the assumption that the most frequent and regularly used cases would show the highest rate of marking. However, with the exception of the nominative case which is used most frequently and which I consider to be categorically marked, no such correlation exists (Table 13).

Table 13: Frequency and Case-marking

Comparison of order of frequency of occurrence of cases with case-marking of English-origin Nouns in the Ottawa Corpus

Case	Frequency N	% case-marking of English- origin nouns
Nominative	370	100%
Partitive	134	46%
Inessive	121	68%
Illative	61	72%
Adessive	20	70%
Elativ	17	88%
Genitive	16	94%
Allative	6	33%
Ablative	1	-

Larmouth claims that the Finnish spoken in Minnesota is undergoing changes due to interference from English. These changes would manifest themselves in terms of differential case-marking according to the degree of boundness of the inflection. Close contact between Finnish and English among the Ottawa speakers has resulted in no change in their Finnish.

The fact that the Ottawa speakers categorically inflect Finnish nouns suggests that the reasons for omission of case-markers is different for the two groups. The possibility exists that the elision of case markers among Larmouth's later generation speakers is largely due to incomplete learning. This is supported by one of his examples in which an illative case marker is replaced by a partitive inflection (p.357) - a puzzling example if produced by a fluent speaker.

Surprisingly Larmouth attributes anomalous forms even to his first generation speakers although he does not provide any analysis of them. Campbell (1980) points out that

Since there are very serious misrepresentations of Finnish Finnish (of the oldest generation) in Larmouth's material, one must be most cautious in evaluating his claims and examples attributed to later generations of American Finnish speakers. (Footnote 2, p.348)

In addition, Larmouth provides no demographic information on his subjects and does not indicate how frequently these forms occur. Thus we cannot with confidence compare his results with the Ottawa findings. However, we cannot dismiss out of hand the findings of the empirical quantitative analysis reported here that variability in case-marking of English-origin nominals closely parallels Larmouth's model. It is intriguing that the constraints on case-marking come into play only on English material used in a Finnish context.

4.6.5 Case-marking as a function of order of acquisition

It was thought that rates of case-marking might parallel order of acquisition of cases by Finnish speaking children, i.e. that those cases which were the last learned by children might prove to be the first to become variable in their case-marking. Toivainen (1980) carried out a study on the order of acquisition of inflectional affixes by Finnish-speaking children. He reports the order of acquisition of case-markers for the local cases on nouns by the median child as reproduced in Table 14.²⁸

Case	Age of Appearance (Toivainen)	(Ottawa data)	
		rate of case marking	N
Illative	1.1	72	61
Adessive	2.1	70	20
Inessive	2.2	68	121
Allative	2.3	33	6
Elicative	2.8	88	17
Ablative	3.3	-	1

These results however, did not compare with those for degree of case-marking. Thus we must assume that there is no relationship between order of acquisition and variability of case-marking on the English nouns.

The evidence suggests that several different factors play a role in variation in case-marking across cases. (1) There does seem to be a varying degree of resistance to deletion from one case to another according to their degree of boundness. (2) When omission of the case-marker does not contribute to loss of comprehension by the hearer the case-marker is more likely to be dropped. The low rate of case-marking of the

²⁸ Due to the manner in which Toivainen's results were presented together the way in which my data were analysed, it was possible to compare only the local cases.

partitive case seems to support this. (3) The nominative case, which sometimes bears a stem vowel, is exceptional in that it is not possible to determine if case value is actually present in those instances. The fact that this stem vowel is generally present on the nominative form of established loanwords²⁹ suggests that it is a device which serves to indicate established loanword status. Nouns which are not established loans will vary regarding presence of the i-stem. (4) There is another factor which might also have a bearing on presence of case-marking. This is the suggestion that certain English phonological forms do not easily accept Finnish case-marking, either because of syllable length, stress placement, or phonological endings which result in a phonologically awkward form. Sankoff, Poplack and Vanniarajan (1986) similarly found that although variable case-marking of English loanwords in Tamil was quantitatively parallel to rates of case-marking of native nouns, there was a small shortfall suggesting the inadaptability of English nouns to certain Tamil processes.

4.7 Rates of case-marking according to speaker

When the rates of case-marking on English-origin nouns were calculated according to speaker there was found to be a wide range of variation among speakers, ranging from 21% to 79% over all cases for a combined rate of 46% overall. However, these results are based on the nominative being considered case-marked only when the stem vowel was present. If we consider that the nominative is actually 100% case-marked (as discussed in section 4.5.2 above), the rate of case-marking jumps to 79% overall (see Table 15). When the speakers are ranked according to the percentage of case-marking there are only minor differences in the order of ranking between the two methods of calculation (i.e. the percentage of nominative case-marking is 1) equal to those with a

²⁹ There are some exceptions to this rule. For example *business* which is a very common loanword in North American Finnish does not have an i-stem. Instead, by analogy to native Finnish words ending in -s such as *vaustaus* 'answer', it has no i-stem and the genitive singular form *busineksen* (cf. *vastauksen*).

stem vowel or 2) 100%).

Table 15

Percentage of English-Origin Nouns which were case-marked over all cases by speaker with and without nominative stem vowel.

Speaker	English-Origin Nouns		
	+ Case Nom=stem V		+ Case All Nom.
	%	N	%
Hilja	79	61	89
Helle	57	247	85
Riitta	52	71	92
Aino	46	150	68
Airi	34	64	88
Elina	28	141	76
Maija	23	26	58
Raija	21	53	62
Total	46	813	79

Hilja had the highest rate of case-marking at 79%; this increased to 89% when all nominatives were counted as case-marked. This high rate seems to go along with the fact that Hilja is not very proficient in English and as a consequence probably finds it easier to strictly follow Finnish grammatical and morphological rules.

Riitta used case-marking 52% of the time; this increased to 92% when the nominative was considered 100% case-marked. This (92%) was the highest rate of any of the speakers. Given Riitta's status as the most conservative speaker in the group, her high rate seems to support the claim that the nominative with a stem vowel (i.e. the bare English noun) is an acceptable form for a non-established borrowing.

Interestingly enough, Helle, who is highly proficient in English, incorporated a great deal of English forms into her speech and does not seem to be overly concerned with language purity, also case-marked English-origin nouns to a high degree (57%). This increased to 85% with the changed nominative calculation.

The four speakers who case-marked the least overall according to the first calculation (Elina, Airi, Raija and Maija), were those four who seemed to be more comfortable speaking English. When the rate of case-marking was determined based on the nominative as 100% case-marked however, their rates of case-marking increased dramatically with the lowest being 58% in contrast with 21% earlier (Table 15).

According to the first count, Aino's rate of case-marking was 46%. This increased considerably to 68% with the changed nominative calculation. However, except for Hilja (who had the highest rate of case-marking to begin with and whose rate of case-marking could not therefore increase by much), this increase was the lowest of all the speakers. As mentioned earlier, many features were noticed in Aino's speech which are quite anomalous and cannot be easily explained.

Thus we can see that when we consider all English nominatives including those instances of a bare English noun, the degree to which English-origin nominals are case-marked is much higher than previously thought. Furthermore, the differences from speaker to speaker become considerably less. Differences do however remain; the difference between the speakers with the highest and lowest percentage of case-marking being 34%. This clearly cannot be attributed to variation of competence in Finnish since all are fluent speakers and all categorically inflected the Finnish nouns. Therefore, we must assume that variation in case-marking between speakers is a question of differences of attitude and of frequency of Finnish usage on a daily basis.

Chapter V

CONCLUSIONS

In this thesis I hoped to present an analysis which would contribute to determining a means of distinguishing between the bilingual speech phenomena of code-switching and borrowing.

I chose to work on Finnish and English because of the typological differences between the two languages since language pairs which are typologically similar (e.g. French-English and Spanish-English) have been the subject of most studies of code-switching and borrowing.

In Chapter 1 I outlined previous work on code-switching and borrowing and discussed the problems which arise in dealing with these phenomena. I then presented the details of my data collection which was carried out using standard variationist techniques. One contribution of this methodology is that my quantitative techniques and use of natural speech data allow more refined conclusions than past studies which relied on directly elicited data. I gave pertinent background information on my informants and reviewed my research methods. An overview of the Finnish nominal system was presented in Chapter 3 to provide background information and to situate the problem within the Finnish grammatical system.

After I extracted the instances of unambiguous code-switches I found that, in fact, there was very little true code-switching in the data but that which did exist obeyed the Equivalence Constraint in spite of typological differences and the fact that code-switching is not an accepted linguistic norm for these individuals.

The majority of the English material in the corpus however, consisted of single nouns whose status as to borrowing or code-switching is in the first analysis ambiguous. A preliminary examination of the data showed these single items to be case-marked at a rate of only 46%. I then investigated how this variability of case-marking could be reconciled with the rules for categorical case-marking in native Finnish.

At a second pass, I examined the nominatives and suggested that if they were treated like the native Finnish nominatives i.e. as showing null case-marking, I could consider all the single English-origin nominatives to be case-marked. Once I considered all these nominatives to be case-marked, the overall rate of case-marking on single English-origin nouns increased to 79% suggesting that the overwhelming majority of this material in fact constitutes nonce borrowings rather than code-switches violating the Equivalence Constraint. I also suggested that as with the pro-verb in Tamil and the stress patterns in Ottawa-Hull French, the relatively rare presence of the Finnish nominative *-i* stem serves to distinguish established from nonce borrowings.

Although a relatively small percentage of nouns remained which were not case-marked, I tried to determine why case-marking was absent. I showed that there are several factors that play a role in the variability of case-marking. One is the use of discourse phenomena which in effect serves to signal the use of English-origin material by highlighting its low degree of integration into the discourse context. This discourse flagging occurred in almost complementary distribution with case-marking, showing that use of bare English nouns in native Finnish discourse is accompanied by production (or perception) difficulties on the part of hearer and speaker. Status of those nouns in the vicinity of these flags must remain indeterminate: they may be analysed as flagged code-switches or poorly integrated nonce loans.

A second factor which affects the variability of case-marking is the particular case in question. My results corroborate the suggestion (Larmouth 1974) that certain case-

markers may be less subject to deletion because they are more strongly 'bound' to the noun stem than others. Consequently, these cases are more likely to be case-marked than less strongly bound cases. In addition, omission of the case-marker appears also to involve functional considerations such as degree of semantic transparency for some cases; this may also contribute to its variable absence. This was particularly striking in the case of the partitive whose absence corresponds to no real loss of information, and which was shown to be present less frequently than any of the other cases (46%).

A third factor that plays a role is that of the characteristics of the individual speakers. Competence in Finnish is not a factor here since case is marked categorically by all speakers on native Finnish nouns, but differences in linguistic background and attitude do contribute to speakers' variable use of case-marking. In particular, differences in the speakers' current preference for Finnish or English in a number of domains of daily interaction seem to be a predictive factor in case variation: those speakers who make most sustained use of Finnish show more case-marking on English-origin nouns. In future research it would be interesting to use multivariate techniques to determine the exact contribution of each of these factors.

Thus it appears that the nonce loan hypothesis can account for the single English nouns occurring in these data which might otherwise be classified as code-switches violating the Equivalence Constraint. Nonce loans are morphologically (and syntactically) integrated into host language patterns behaving for all intents and purposes like native Finnish material. Candidates for borrowing which are not so case-marked tend to be accompanied by production difficulties. Code-switching on the other hand, follows only morphological and syntactic patterns of the language from which they are drawn. Their differential behaviour in the vicinity of prepositions and determiner + noun constructions such that both prepositions and determiners tend to be present as required in unambiguous English stretches and absent in the environment of single nouns, lends

support to the distinction between the two. This reinforces the distinction between code-switching and borrowing and strengthens the notion that nonce and established loans are not distinguishable on purely linguistic grounds, but rather sociological ones, i.e. widespread recurrent use.

As the intrasentential code-switching examples in these data were too few to be able to draw any real conclusions on Finnish-English code-switching, further research in this area might involve yet another typologically dissimilar language pair in which code-switching is a more common phenomenon. Further study of Finnish-English bilinguals or possibly Finnish-Swedish bilinguals could provide corroborating or contradicting evidence for the findings made here.

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First Coding Sheet - SAMPLE

Speaker : 12, no

Tape & Counter No.	Case Marker Present	Case Marker Absent
15a-241		siellä nursing home
15b-171		tuossa university
394	air force - issa	
416	caarassa	
16a-025		air force
039	high school issi	
069		Woodroffe High School
112		siinä high schooli
143	näissä wh - house - issa	
143	house - issa	
16a-159	samassa roemassa	
16b-073		siellä nursing home
150	Civic Hospital - issa	
143	"	siellä nursing home
17a-011	siellä hospitalissa	
019	"	tuolla wh - hospital

First Coding Sheet - SAMPLE

Speaker : Helic

Case: Inessive

[illegible]

APPENDIX C

English Nouns - Case Marker Present

CASE: *Adessive*

Speaker/ No.	Noun	Prec by FS.	Foll by FS.	FLAG	Ratification	Marker	Inflection	Elsewhere	Finn	Determiner	Stem V change	Eng N ends	Plur oblig	Lg of plur	Single/Comp	Proper Noun	Redetection/	Synt Function (nom, gen, part)	Other
Elina 19b.089	<i>detrickilla</i>	N	N	N	N	N	P	N	Y	Y	C	C	N	Ø	S	N	N		
20b.104	<i>province-illa</i>	N	N	N	N	N	N	N	N	N	Y	C	N	Ø	S	N	N		
Aino 17a.056	<i>Visibog Homemaker-illa</i>	N	N	N	N	N	P	P	Y	Y	C	C	N	Ø	-	Y	N		
16b.099	<i>Kennedy Airport-illa</i>	P	FS	N	N	N	P	P	Y	Y	C	C	N	Ø	-	Y	N		
Airi 24a.025	<i>Driveway-lla</i>	N	N	N	N	N	P	P	Y	Y	N	V	N	Ø	-	Y	N		
29b.119	<i>Arcticilla</i>	N	N	N	N	N	P	P	Y	Y	C	C	N	Ø	S	N	N		
Raija 25b.161	<i>BBC-lla</i>	N	N	N	N	N	N	N	N	N	N	V	N	Ø	-	Y	N		
Hilja 28a.125	<i>CN-ella</i>	N	N	N	N	N	N	N	N	N	Y	C	N	Ø	-	Y	N		
Riika 12a.196	<i>marketilla</i>	P	P	N	N	N	N	N	N	N	Y	C	N	Ø	S	N	N		
196	<i>marketilla</i>	N	N	N	N	N	N	N	N	N	Y	C	N	Ø	S	N	N		
12b.087	<i>Country Club-illa</i>	N	FS	N	N	N	N	N	N	N	Y	C	N	Ø	C	N	N		

APPENDIX D

English Nouns - Case Marker Absent

CASE: Translative

Speaker No.	Noun	Prec by FS.	Foll by FS.	pause	FLAG	Ratification	Marker	Inflection	Elswhere	Tnn	Determiner	Stem V change	(nom)	Eng N ends	C/V	Plur oblig	Lg of plur	marker	Single/Comp	Proper Noun	Repetition/	Translation	Synt Function (nom, gen, part, adess)	Other
96-114	personal maid	N	N	N	N	N	N	N	N	N	N	N	N	C	C	N	ø	ø	C	N	N	N		
114	Chambermaid	N	N	N	Y	T	N	N	N	N	N	N	N	C	C	N	ø	ø	S	N	N	N		
114-204	Candy Stripers	N	N	N	N	N	N	N	N	N	N	N	N	C	C	Y	E	E	-	Y	Y	Y		
206-04	registered nurse	FS	N	N	N	N	N	N	N	N	N	N	N	C	C	N	ø	ø	C	N	N	N		
196-111	translator	FS	N	N	N	T	N	N	N	N	N	N	N	C	C	N	ø	ø	S	N	N	N		
114-052	manager	FS	N	N	N	N	N	N	N	Y	Y	N	N	C	C	N	ø	ø	S	N	N	N		

APPENDIX E

Finnish Nouns

case: Partitive

Speaker/No.	Noun	Prec by FS.	Fall by FS.	pause	FLAG	Ratification	Marker	Inflection	Elsewhere	Finn Determiner	Stem V change (nom)	Eng N ends C/V	Plur oblig	Lg of plur marker	Single/Comp	Proper Noun	Repetition/Translation	Synt function (nom, gen, part)	Other
156-241	vuotta	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
279	vuotta	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
156-166	tyttöjä	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
127	rakennuksia	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
136	michia	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
239	ovikellaa	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
239	englantia	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
332	vuotta	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
164-023	vuotta	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
057	ranskaa	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
079	vuotta	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
084	kuussia	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
084	rahaa	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
128	ihmistä	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
394	kieltä	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	

APPENDIX F

Results: Amalgamated for all Cases

Speaker: *21.2*

Dis-course Feature	Total English	English - Case Marker Absent		English - Case Marker Present		Total Finnish	Total English & Finnish	Finnish		English	
		N/Tot	%Tot	N/Tot	%Tot			N/Tot	%Tot	N/Tot	%Tot
Preced. False Start	13	10/13	77%	3/13	23%	14	27	14/27	52%	13/27	48%
Preced. Pause	49	35/49	71%	14/49	29%	23	72	23/72	32%	49/72	68%
Foll. False Start	6	4/6	67%	2/6	33%	3	9	3/9	33%	6/9	67%
Foll. Pause	22	16/22	73%	6/22	27%	16	38	16/38	42%	22/38	58%
Flag	8	5/8	63%	3/8	37%	2	10	2/10	20%	8/10	80%
Ratification Marker	61	45/61	74%	16/61	26%	10	71	10/71	14%	61/71	86%
Preced. Inflection	52	35/52	67%	17/52	33%	34	86	34/86	40%	52/86	60%
Finnish Determiner	32	25/32	78%	7/32	22%	22	54	22/54	41%	32/54	59%
Repetition	2	1/2	50%	1/2	50%	2	4	2/4	50%	2/4	50%
Translation	2	2/2	100%	0/2	0%	2	4	2/4	50%	2/4	50%
Explanation	1	1/1	100%	0/1	0%	1	2	1/2	50%	1/2	50%

APPENDIX G

Results: Amalgamated for all Speakers

Discourse Feature: *Preceding Pause*

Case	Total English	English - Case Marker Absent		English - Case Marker Present		Total Finnish	Total English & Finnish	Finnish		English	
		N/Tot	%Tot	N/Tot	%Tot			N/Tot	%Tot	N/Tot	%Tot
Nominative	99	87/99	88%	12/99	12%	34	133	34/133	26%	91/133	71%
Genitive	18	8/18	44%	10/18	56%	11	29	11/29	38%	18/29	62%
Partitive	37	27/37	73%	10/37	27%	17	54	17/54	31%	37/54	69%
Inessive	35	16/35	46%	19/35	54%	10	45	10/45	22%	35/45	78%
Elativ	5	0/5	0%	5/5	100%	3	8	3/8	38%	5/8	62%
Illative	13	6/13	46%	7/13	54%	3	16	3/16	19%	13/16	81%
Adessive	5	3/5	60%	2/5	40%	6	11	6/11	55%	5/11	45%
Ablative	1	1/1	100%	0/1	0%	1	2	1/2	50%	1/2	50%
Allative	3	3/3	100%	0/3	0%	0	3	0/3	0%	3/3	100%
Translative	2	1/2	50%	1/2	50%	1	3	1/3	33%	2/3	67%
Essive	1	1/1	100%	0/1	0%	2	3	2/3	67%	1/3	33%
	219	153/219	70%	66/219	30%	88	307	88/307	29%	219/307	71%

APPENDIX H

Amalgamated Results - All Speakers, All Cases

Dis-course Feature	Total English	English - Case Marker Absent		English - Case Marker Present		Total Finnish	Total English & Finnish	Finnish		English	
		N/Tot	%Tot	N/Tot	%Tot			N/Tot	%Tot	N/Tot	%Tot
Preced. False Start	70	46/70	66%	24/70	34%	63	133	63/133	47%	70/133	53%
Preced. Pause	219	153/219	70%	66/219	30%	88	307	88/307	29%	219/307	71%
Foll. False Start	19	11/19	58%	8/19	42%	18	37	18/37	49%	19/37	51%
Foll. Pause	134	99/134	74%	35/134	26%	82	216	82/216	38%	134/216	62%
Flac	63	45/63	71%	18/63	29%	38	101	38/101	38%	63/101	62%
Ratification Marker	268	191/268	71%	77/268	29%	132	400	132/400	33%	268/400	67%
Preced. Inflection	309	175/309	57%	134/309	43%	300	609	300/609	49%	309/609	51%
Finnish Determiner	252	147/252	58%	105/252	42%	180	432	180/432	42%	252/432	58%
Repetition	25	15/25	60%	10/25	40%	18	43	18/43	42%	25/43	58%
Translation	15	12/15	80%	3/15	20%	16	31	16/31	52%	15/31	48%
Explanation	7	4/7	57%	3/7	43%	3	10	3/10	30%	7/10	70%

APPENDIX I

Key to Abbreviations

Nominative	N.
Genitive	G.
Partitive	P.
Inessive	IN.
Elicative	EL.
Illative	IL.
Adessive	AD.
Ablative	AB.
Allative	AL.
Translative	TR.
Essive	ES.
Singular	SING.
Plural	PL.
Interrogative	INT.
Participle	PART.
Infinitive	INF.
Passive	PASS.
Active	ACT.
Zero Morpheme	0