

# THE ACQUISITION OF A VERBAL REPERTOIRE IN A SECOND LANGUAGE

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## Introduction

Studies of speech communities have brought into focus the different ways which members of a given community have of speaking according to the different social contexts in which they find themselves. Labov (1966) has shown how contextual styles such as casual speech, speech in interviews, and reading aloud of texts, word lists, and minimal pairs bear a clear relation to the probability of occurrence of certain phonological items in the informant's speech. Likewise, the topic of conversation in face-to-face interactions has been shown to exert a similar effect on phonology. Labov (1970, 1984), Gumperz (1964) and Blom and Gumperz (1972) have shown that the choice of a particular code by members of a bidialectal community is determined by the topic under discussion and by the group membership of the other participants in the interaction.

Thus, members of speech communities have resources which they are able to call on in order to communicate social meaning through speech which go far beyond the restrictions imposed by conventional models of

grammar. These resources may exist on any linguistic level from the lowest level of phonology up to and including the choice of dialect or language. These sociolinguistic resources Gumperz (1964) has called the speakers' verbal repertoire, defined as "the totality of linguistic forms regularly employed in the course of socially significant interaction" (Dil 1971: 152).

Indeed, the notion of a 'speech community' is itself related to the verbal repertoires of the members of the community, for those scholars who have defined speech community (Hymes 1974, Labov 1969) have done so not solely in terms of a shared code, but also, and necessarily, in terms of a shared set of norms of interpretation of the verbal repertoire. Thus Hymes' definition (1974:51),

A speech community is defined, then, tautologically but radically, as a community sharing knowledge of rules for the conduct and interpretation of speech. Such sharing comprises knowledge of at least one form of speech, and knowledge also of its patterns of use. Both conditions are necessary.

and that of Labov (1972a [1969]: 120-121),

The speech community is not defined by any marked agreement in the use of language elements, so much as by participation in a set of shared norms; these norms may be observed in overt types of evaluative behavior, and by the uniformity of abstract patterns of variation which are invariant in respect to particular levels of usage.

differ in how narrowly they define the verbal repertoire of a speech community, but agree on the necessary condition that the rules for the interpretation of such a repertoire be shared.

If members of speech communities have such repertoires at their

command, the question arises as to how those repertoires are acquired. However, until recently the question of how adults acquire a verbal repertoire in a second language has received scant attention, since the central question for second language acquisition (SLA) researchers has been to explain how acquirers internalize the linguistic code of the target speech community<sup>1</sup> rather than to investigate how they learn to use that code appropriately.

Interest in the acquisition of a verbal repertoire in a second language has recently spawned a number of studies of the acquisition of discourse-pragmatic features and cross-cultural studies of speech acts (Blum-Kulka 1983, Blum-Kulka and Olshtain 1984, Scarcella 1983, and Tannen 1984). A number of studies<sup>2</sup> have documented variation in second language production, but most of this work has addressed questions arising from theories of the systematicity of interlanguage (Selinker 1972, Labov 1971a), or concerning the adequacy of competing psycholinguistic models of second language production. Very few studies have interpreted the facts of interlanguage variation from the point of view of what they reveal about the acquisition of sociolinguistic competence in a second language<sup>3</sup>, and none has interpreted interlanguage variation as evidence of an incipient verbal repertoire in a second language.

In this paper I shall argue in favor of widening the scope of conventional SLA research to include not only the acquisition of the linguistic patterns of the second language, but also the acquisition of a verbal repertoire in a second language. The central question I wish

to address is, "Is there evidence that variation in second language production reflects sensitivity on the part of the second language learner to features of social context and interaction, such that we may interpret this variation as the acquisition of a verbal repertoire in a second language?", and if this question can be answered in the affirmative, a subsequent question is, "In what ways is the verbal repertoire of the second language learner similar or different to that of members of the target speech community?"

#### Previous Studies of Variation in Interlanguage

Studies of variation in interlanguage that I have been able to examine at first hand<sup>4</sup> have been carried out within a number of theoretical paradigms, and have addressed a number of issues within the particular paradigm that researchers have been using. Thus, evidence of systematic interlanguage variability has been used (1) to challenge the hypothesis of a 'natural order' of acquisition of morphemes in the speech of children and adults acquiring English as a second language (Bailey, Madden, and Krashen 1974, Krashen 1981); (2) to provide support for a hypothesized interlanguage system consisting of variable rules (Labov 1969); (3) to support a 'gradual diffusion model' (Bailey 1973, Bickerton 1973) of second language acquisition; (4) to enlarge the domain of studies of transfer from the mother tongue to include transfer of sociolinguistic rules; (5) to exemplify the application of Accommodation Theory (Giles and Powesland 1975, Giles, Bourhis and

Taylor 1977) to second language acquisition; and (6) to provide ammunition against Krashen's (1981) Monitor Theory and Adjemian's (1976, 1982) homogeneous competence paradigm of interlanguage. Interlanguage variability has, in short, been many things to many researchers--from a stick with which to beat the hypotheses of others to a staff with which to support one's own. But for all researchers, interlanguage variability has been an incidental component of competence in a second language, and in none of the studies under review has interlanguage variability been taken in any sense as the goal of second language acquisition, in the radical way that Labov (1971b) has proposed that stylistic variability be one of the criteria for adequacy of natural languages.

The design of previous studies of interlanguage variation has followed one canonical mode of psycholinguistic experimental design: a relevant population of speakers of a second language is identified, certain independent variables in the sociolinguistic situation are carefully manipulated, and the production of certain hypothesized dependent phonological or morphological variables in the subjects' interlanguage is measured. As a rule, the independent variable is a number of elicitation tasks ranged along a hypothesized dimension of degree of attention to speech<sup>5</sup>. However, as Wolfson (1976) has pointed out, this dimension is indeed hypothetical, and whether the underlying trait which accounts for systematic variability in speech production across tasks is indeed to be identified with conscious monitoring of speech is an empirical question to be answered by psycholinguistic research: the relationship of identity cannot be assumed a priori.

The dependent variables are phonological or morphological alternants as defined by Labov's (1972a [1969]: 72) principle of accountability, viz.

any variable form (a member of a set of alternative ways of "saying the same thing") should be reported with the proportion of cases in which the form did occur in the relevant environment, compared to the total number of cases in which it might have occurred.

However, second language researchers have differed in how they have treated linguistic variables: the majority of studies have counted variables simply as either target-like or non-target-like, while a minority have classified all alternants into phonetically distinct types before proceeding to make the target-like/non-target-like distinction. Although the difference between the two approaches may seem a small one, in fact it reveals two complimentary assumptions about the role of the second language learner in the target speech community. If the linguistic variables are either target-like or non-target-like, then the variability may be seen as marking a boundary between members of the target speech community and non-members. Given the proviso that the target community for second language learners may not always be the community of speakers of the standard variety of the target<sup>6</sup>, this analysis may thus be of interest in the study of how learners come (or fail to come) to share in the sociolinguistic rights and obligations of the targeted speech community. On the other hand, an analysis which does not take the targeted forms as one of its points of departure implies the existence of a community of speakers of an interlanguage with their own consistent rules for interpreting interlanguage variation. The existence of such a community implies

shared repertoires and values, and while there may be situations in which such repertoires and values do obtain <sup>7</sup>, in the most frequently studied cases of second language acquisition (immigrants informally acquiring a second language in dominantly monolingual societies, or children receiving formal instruction in a foreign language at school) this is not the case. The question as to which approach to take to linguistic variables in interlanguage is thus dependent on the nature of the contact situation.

A summary of the main points of seven previous studies of interlanguage variation is given in Table 1.

Table 1

## Studies of Variation in Interlanguage

Study	Subjects	Target Language	Independent Variable	Linguistic Variable
Beebe 1980	9 Thai adults	English as a second language	Task: - Conversation - Listing	Phonological: Initial and final (r)
Beebe & Zuengler 1983	61 ethnic Chinese children	Thai as a 2nd dialect	Interlocutor: - Same ethnicity - Different ethnicity	Phonological: 6 vowel variables 2 consonant variables
Dickerson & Dickerson 1977	10 Japanese adults	English as a second language	Task: - Free speech - Dialogue reading - Word list reading	Phonological: (z) in 4 environments, (r) in 2 environments
Gatbonton 1978	27 French Canadian adults	English as a second language	Task: - Spontaneous speech - Paragraph reading - Minimal pairs	Phonological: (th), (h)
Larsen-Freeman 1975	24 adults: 6 Arabic 6 Japanese 6 Persian 6 Spanish	English as a second language	Task: - Oral interview - Oral imitation - Listening test - Reading test - Writing test	Morphological: Accuracy order of ING, AUX, PLURAL, 3PS, PAST REG, IRR PAST, POSS, 'is', ARTICLES
Schmidt 1977	34 adults and children: Egyptian Arabic	English as a foreign language	Task: - Reading passage - Word lists - Minimal pairs	Phonological: (th)
Tarone 1985	20 adults: 10 Arabic 10 Japanese	English as a second language	Task: - Narrative - Interview - Written test	Morphological: 3PS, Def. article, PLURAL, Direct Object Pronoun 'it'



The studies may be divided according to the nature of the independent variable (either task or interlocutor), and according to the level of the dependent linguistic variable (either phonological or morphological). The majority of studies, however, relate task to phonological variation, and I will review these first.

Dickerson's study (Dickerson 1974, 1975, Dickerson and Dickerson 1977) is a longitudinal study of the acquisition of English phonology by Japanese adults. The results appear to show highly systematic variation across linguistic environments and across elicitation tasks in the production of (r) and (z)<sup>8</sup>. The percentage of target-like pronunciations of the two variants was found to be a monotonically increasing function of the formality of the elicitation task<sup>9</sup>. Dickerson interprets her results as lending support to the hypothesis that variable rules underlie interlanguage competence.

Other studies of phonological variation across task have yielded the same result, although the interpretations placed on the results have been different. Gatbonton (1978), in an attempt to apply a gradual diffusion model of linguistic change to second language acquisition, found incidentally that rule changes toward the target happened first in reading tasks and only later in spontaneous speech. Schmidt (1977) found a similar patterning of (th) variables in the speech of learners of English in Egypt both in English and in the colloquial Arabic which was their mother tongue, and concluded that variation in English was a result of transfer of sociolinguistic rules from the mother tongue. Beebe (1980), however, showed that more than

just transfer was involved when she measured the variants of (r) across task in the English speech of Thai informants. She found evidence that those word-initial environments in which (r) occurred in both Thai and English led to a transfer of the native language rule of variance (which in this case led to the production of fewer target-like forms in the formal task in English than in the informal one), whereas word-final environments (found in American English but not in Thai) produced the monotonically increasing relationship between formality and pronunciation accuracy found in other studies<sup>10</sup>.

As far as interlanguage phonology is concerned then, there seems to be a likelihood that more target-like variants will be elicited by more formal tasks such as the reading of dialogues and word lists than will be elicited in spontaneous speech. In this respect, then, the structure of the verbal repertoire of the second language learner bears a distinct similarity to that of members of targeted speech community, who vary in a similar way toward prestige forms and away from non-standard forms in more formal speech styles. However, the image of the second language learner as a member of two speech communities with at times conflicting rules is brought out by the pronunciations of Beebe's informants of (r) in syllable-initial position.

Two studies of morphological variation across task produced, however, results which are not so consistent as those found in phonology. Larsen-Freeman's (1975) study was conceived within the research paradigm of studies of acquisition orders in first and second language acquisition, and thus sheds light only obliquely on our main

concerns. The study was designed to test whether morpheme accuracy orders<sup>11</sup> were invariant across task. She found no significant correlation among the rank orders for accurate production of ten morphemes across five tasks of writing, listening, speaking, reading, and imitation except in the three cases of writing x reading, writing x speaking, and speaking x imitation<sup>12</sup>. Since the study addresses the question of variation only indirectly, we are unfortunately given no data on the actual accuracy order on each of the tasks, only the rank order correlation coefficients, so it is impossible to judge whether the variation is similar to that reported in the other studies in which the dependent variables are morphological.

A second study of morphological variation across task is Tarone's (1985) study of the interlanguage production of 10 Arabic and 10 Japanese adults in narratives, interviews, and written tests. Tarone measured the percentage of target-like productions of two bound morphemes--third-person singular s on present tense verbs, and noun plural s--, and two free morphemes--definite article the, and direct object pronoun it--across the three tasks and found, surprisingly, that target-like accuracy across the tasks arranged in ascending order of hypothetical degree of attention to speech (narrative, interview, test) was not the monotonically increasing function of degree of attention to speech that was regularly found in the studies of phonology<sup>13</sup>. Tarone's results for the two bound morphemes are far from clear, since the more formal tasks elicit more target-like production in some cases, seem to make no difference in others, and in yet other cases elicit a

smaller percentage of target-like forms. However, in the case of the two free morphemes, definite article and direct object pronoun it, the results are consistent and consistently against the trend to be found in the phonological studies, viz. the more formal tasks elicit fewer target-like utterances than do the less formal tasks. Although Tarone's results in the case of free morphemes appear surprising in the light of a consistently opposite trend found in the studies of phonology, I will present evidence that they are by no means an unreliable figment of one particular experiment, rather they are to be found in the present study of morphological variation, and indeed are to be expected on theoretical grounds.

The final study under review is Beebe and Zuengler's (1983) report of variation in the phonology of 61 Thai-Chinese bilingual children. This study is unique in a number of respects since (1) the independent variable is the ethnicity of the interlocutor in conversation with the children; and (2) the subjects were fluent in the target language, Thai, since they were ethnic Chinese children born and growing up in Thailand. Beebe and Zuengler hypothesized that the Chinese children would accommodate in their speech to an ethnic Chinese interlocutor by using more non-standard Chinese phonology than when the interlocutor was Thai. Although neither interlocutor used Chinese to the children, the results confirmed the hypothesis by showing that for five out of six vowel variables, and for both consonant variables, significantly more non-standard variants were used with the ethnic Chinese interlocutor<sup>14</sup>. From the point of view of verbal repertoire, this result is not surprising since the children were, by virtue of their

fluency in Thai, full members of a speech community where ethnic identity is also marked linguistically, in a way which is perhaps linguistically more subtle but no less significant than the way in which caste membership is marked by language choice in rural India (Gumperz 1957), the group membership of an interlocutor is marked by language choice in rural Norway (Blom and Gumperz 1972), or in urban Barcelona (Woolard 1985). A more interesting question would be to ask how that component of a verbal repertoire used for marking group membership of an interlocutor is acquired in a second language. That is the question which the present study will address.

Interlanguage Morphology and the Acquisition  
of a Verbal Repertoire in a Second Language

The present study was designed as a preliminary investigation into the effect of interlocutor on morphological variation in a second language. The second language was English, being acquired by the subjects in the United States, and thus in order to test for the existence of components of verbal repertoire in the second language, the interlocutors were chosen to represent either native-speaking (NS) members of the target speech community or else, like the subjects, non-native-speakers (NNSs) of English. The choice of interlocutor as the independent variable was made because only one previous study (Beebe and Zuengler 1983) had addressed the effects of this variable, and since that study dealt with patterns of variation among fluent

bilinguals there is some question as to whether the findings are relevant to studies of second language acquirers at a lower overall level of proficiency. There were also clearly motivated reasons for the variation found in Beebe and Zuengler's study from the point of view of Accommodation Theory, and there is some doubt as to whether such a clear pattern of variation would emerge if (1) the shared ethnicity of subject and interlocutor were not a major factor in the speech situation (Beebe, personal communication); and (2) the subjects were less than fluent in the second language.

There are, however, I maintain, good reasons for believing that such variation is likely to occur nonetheless. In the first place, if variation in second language production is seen as the acquisition of a verbal repertoire, then it is well established that part of native verbal repertoire in English includes the differential phonological, lexical, morphosyntactic, and discourse features of Foreigner Talk (Ferguson 1971, 1975, 1981, Freed 1978, Clyne (ed.) 1981, Long 1983). In this respect, then, variation in second language production across NS/NNS interlocutors may be seen as the acquisition of a Foreigner Talk repertoire in a second language. In the second place, it has been established (Varonis and Gass 1985, Young and Doughty 1985) that NNS-NNS conversations differ significantly from NS-NNS conversations from the point of view of the features of conversational discourse which occur in the negotiation of meaning. In the Varonis and Gass data, conversations between non-native speakers contain almost four times as many negotiated instances of non-understanding or misunderstanding as occur in similar NS-NNS conversations. It is likely that this

difference in discourse also has repercussions on other linguistic levels. And finally, Bickerton (1984) has proposed that the degree of morphosyntactic divergence between contemporary creoles and their corresponding superstrate languages may be causally attributed to the amount of contact which existed between NNSs of the superstrate and NSs at the time of the original formation of the pidgin. Thus, in Bickerton's view, prolonged periods of contact between relatively large numbers of NSs and pidgin speakers lead to creoles which diverge less from the superstrate than do situations in which the initial period of contact is short and the proportion of NSs is low. From the point of view of second language acquisition, Bickerton's theory is one of input, in which greater contact with NS interlocutors leads to more target-like second language production. If this is the case, it should be possible, given sensitive enough instruments, to observe such a process at work in the minutiae of individual conversations. Thus we may conclude that even when strong conditions for accommodation are not present in the context of second language speech, there are nonetheless well-grounded reasons for believing that variation in speech production across interlocutors is likely to take place. It remains to be seen exactly what form this variation will take.

The dependent variable in the present study was the production of the nine grammatical morphemes: copula, definite article, indefinite article, noun plural, regular past tense, irregular past tense, third person singular present tense -s, progressive auxiliary marker -ing, and progressive auxiliary be in the speech of the six subjects. It was decided to study interlanguage morphology rather than phonological

variables, since work on the latter had produced conclusive evidence of systematic variation which could be explained, to my satisfaction at least, by recourse to well-established theories. Morphology seemed more promising since morphological variation across interlocutors is relatively unexplored territory, and also since it promised to shed some light on the process of morphosyntactic development in interlanguage over time, which is of central concern to second language acquisition.

#### Data Collection and Analysis

Data were gathered from six NNS learners of English at the University of Pennsylvania's English Program for Foreign Students (EPFS). The subjects were young adults (three men and three women) selected to reflect a low to intermediate proficiency level, as measured by their enrollment in low or intermediate English classes, and a relatively short (less than 6 months) period of residence in the United States, since it was expected that the interlanguage of such subjects would be more highly variable than that of other second language learners. The subjects were also chosen to reflect a range of language backgrounds<sup>15</sup> in the hope that the aggregate effect due to transfer of sociolinguistic rules from the first language would be negligible. The subjects were all briefed before the study began and were told that the aim of it was to find out how NNSs actually spoke English, and that it was in no way a test of their English



proficiency. They were asked to talk for 20 to 30 minutes to two different interlocutors on topics concerning (1) their impressions of life in Philadelphia; and (2) differences between life back home and life in the United States.

Interlocutors were chosen from among the community of students, administrators, and teachers at EPFS in order that subjects and interlocutors would be acquainted with one another but would not be close friends. All NS interlocutors were speakers of standard varieties of English, and all NNS interlocutors were of comparable English proficiency level to the subjects. Interlocutors received the same briefing as subjects and in addition were asked to get the subjects to talk as much as possible by prompting and asking questions about the topic. Since it was believed that a gender difference between interlocutor and subject might have an effect on speech, especially in the case of the Japanese subjects, all subjects and interlocutors were same-gender pairs. All conversations took place in empty classrooms at EPFS and were recorded on portable cassette recorders placed in full view of both participants. No one else was present during the conversations.

Approximately 6 hours of tape recordings were gathered in this way which were later transcribed in English orthography. This yielded a total of over 18,000 words of transcript, and approximately 1700 obligatory contexts for production of the morphemes under investigation. Since the subjects were immigrants into a native-speaking, dominantly monolingual speech community, and the research

design involved an investigation of how the presence of members of that community affected second language production, it was decided to measure variation in terms of how accurately subjects modelled the morphology of the target language--standard English--rather than measure variation independently of the target. These data were then analyzed according to the Target-Like Use method of quantification of morpheme data proposed by Stauble (1981) and Pica (1983). Each context for actual or target-like use of each of the morphemes was then scored as an instance of (1) target-like use in an obligatory context (TLU), (2) omission in obligatory context (OM), or (3) overuse in a non-obligatory context (OU), and lastly the total of obligatory contexts (OC) was calculated as the sum of TLU + OM. Examples of each category and definitions of each of the nine morphemes measured are given below:

#### Copula (COP)

Obligatory context: Any verbal context requiring a form of be as copula.

Target-like use: she's 59 years old

Omission: I from Tokyo

Overuse: I'm very missi every country's people

#### Indefinite article (INDEF)

Obligatory context: Any determiner context requiring marking with a or an in English.

Target-like use: And she have a boyfriend

Omission: She's hairdresser

Overuse: I want to see a snow

Plural (PLU)

Obligatory context: Any noun context requiring plural marking in English.

Target-like use: And my other niece is four years

Omission: I came three month ago

Overuse: I have a new friends

Definite article (DEF)

Obligatory context: Any determiner context requiring the in English.

Target-like use: How about your mother?

Oh stay the hospital again

Omission: I don't like Japanese government system maybe

Overuse: It is expensive to get a house near the downtown

Irregular past tense (IRR)

Obligatory context: Any verbal context requiring a past tense of an irregular verb in English (not including past tense copulas).

Target-like use: You other day told me one month only return home

Omission: I talk with my family yesterday too

Overuse: We must took off the shoes

Regular past tense (PST)

Obligatory context: Any verbal context requiring a past tense of a regular verb in English.

Target-like use: Yesterday I talked she her son

Omission: I drink beer in the Singapore

Overuse: I talked my neighborhood (I want to talk about my neighborhood)

Third person singular present tense (3PS)

Obligatory context: Any present tense third person singular verb requiring final -s inflection in English (not including copula).

Target-like use: Maybe the problem is better when he decides to marry.

Omission: But it cost, it need a lot of money

Overuse: Compared with Western people, Japanese drinks alcohol well

Progressive aspect marker (ING)

Obligatory context: Any verbal context requiring marking  
with -ing for progressive aspect in

English.

Target-like use: But now 100 people waiting

Omission: What happen? (What's happening?)

Overuse: Sometime in the morning I drinking

Progressive auxiliary (AUX)

Obligatory context: Any preverbal context requiring a form of  
be to complete marking of progressive  
aspect in English.

Target-like use: All the time you are learning

Omission: But now 100 people waiting

Overuse: She's open the door

Instances of each category for each morpheme were then totaled for  
the six subjects in conversation with (a) the NNS interlocutor and (b)  
the NS interlocutor. The TLU accuracy score was then calculated as:

$$\text{TLU Accuracy} = \frac{\text{TLU}}{\text{OC} + \text{OU}} \times 100\%$$

Results

The first level of analysis is to show what effect the  
interlocutor had on overall accuracy for the 9 morphemes measured for  
each of the six subjects. The results of this analysis are shown in  
Table 2.

Table 2

## TLU Accuracy Scores (Subject x Interlocutor)

L1 of subject	NNS interlocutor		NS interlocutor		Over- all acc.	Net effect of NS on accuracy
	OCs	Accuracy	OCs	Accuracy		
Italian	221	79.7%	396	83.4%	81.6%	3.7%
Portuguese	38	70.0%	89	74.2%	72.1%	4.2%
Arabic	68	46.1%	33	71.4%	58.8%	25.3%
Spanish	210	58.1%	221	59.1%	58.6%	1.0%
Japanese	57	47.9%	140	59.8%	53.9%	11.9%
Japanese	52	27.4%	178	34.7%	31.1%	7.3%
MEANS:	108	54.9%	176	63.8%	59.3%	8.9%

NUMBER OF PAIRED OBSERVATIONS: 6  
 STANDARD DEVIATION: 0.081  
 STANDARD ERROR: 0.033  
 T VALUE: 2.697  
 DEGREES OF FREEDOM: 5  
 2-TAIL PROBABILITY: < .05

Table 2 shows clearly that in every case, the overall morphological accuracy of interlanguage production when second language learners are in conversation with a NS interlocutor is higher than when the interlocutor is another NNS. Although there are considerable differences between individuals, the mean difference of 8.9 percentage points is significant at the  $p < .05$  level on a t-test for matched data pairs.

However, when we sum the scores for all six subjects on each morpheme a more complicated picture emerges, as can be seen in Table 3.

Table 3

## TLU Accuracy Scores (Morpheme x Interlocutor)

Morpheme	NNS interlocutor		NS interlocutor		Over- all acc.	Net effect of NS on accuracy
	OCs	Accuracy	OCs	Accuracy		
COP	189	85.6%	339	77.2%	80.2%	-8.4%
INDEF	99	73.8%	143	71.7%	72.5%	-2.1%
PLU	73	50.6%	172	71.8%	65.4%	21.2%
DEF	106	66.9%	127	60.7%	63.4%	-6.2%
IRR	105	38.5%	147	55.9%	48.6%	17.4%
PST	30	32.3%	47	48.9%	42.3%	16.6%
ING	9	29.4%	32	41.1%	38.4%	11.7%
3PS	25	21.6%	39	43.1%	34.1%	21.5%
AUX	10	15.4%	11	23.5%	20.0%	8.1%
Totals	646	61.0%	1057	65.3%	63.7%	4.3%

Table 3 shows that despite the overall gain in morpheme accuracy brought about by a NS interlocutor, the pattern of variation is not the same for all morphemes. Whereas plural s, irregular and regular past tenses, third person singular s, progressive aspect marker ing, and the progressive auxiliary be contribute to the gain in overall accuracy by occurring in more target-like environments with NS interlocutors, three other morphemes--copula, and definite and indefinite articles--have in fact lower accuracy scores in conversations with NSs. This result is illustrated graphically in Figures 1 and 2, in which the negative variables (i.e., those for which the net effect of the NS interlocutor is to decrease accuracy) are separated out from the positive variables (i.e., those for which the net effect of the NS interlocutor is to increase accuracy). It should be noted, however, that although these general tendencies may be observed in the aggregate

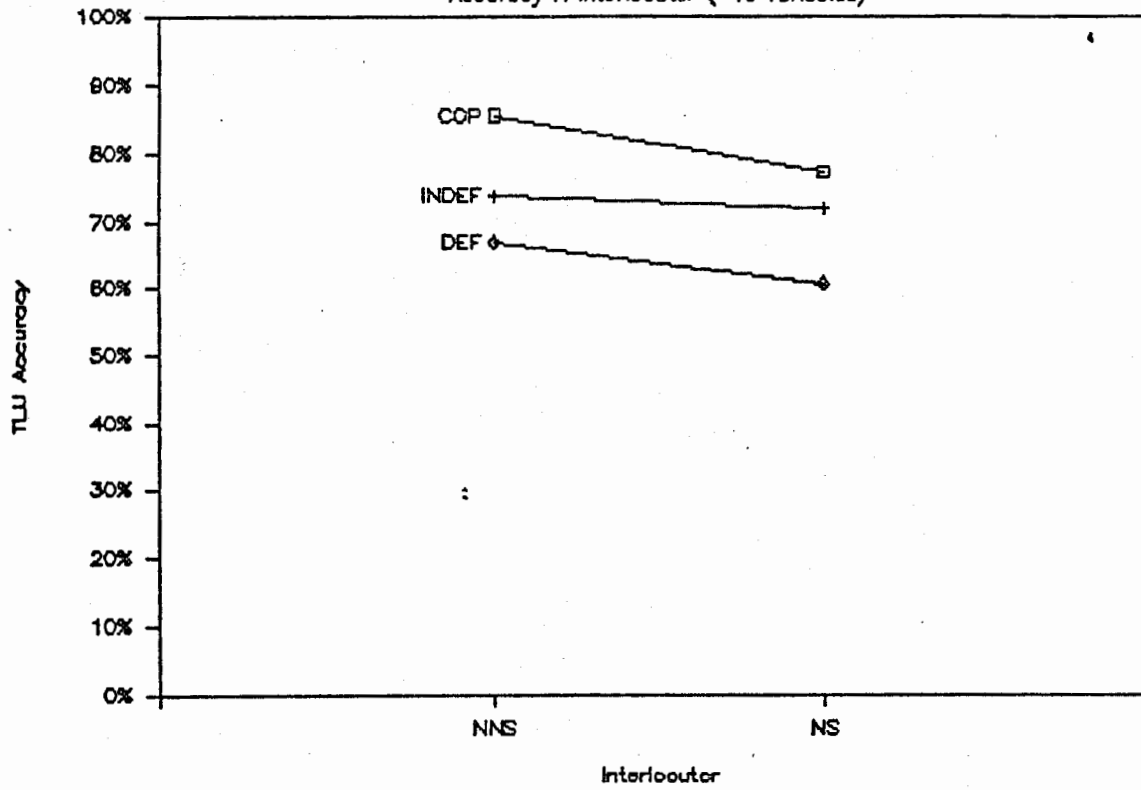
data, there are considerable differences among subjects which may be due to the influence of different first languages. When tested on a matched-pair t-test, none of the above aggregate differences reaches the .05 level of significance.

### Discussion

We may now attempt to answer the two questions posed in the introduction which motivated this study. In the first place, the broad-brush picture of variation painted in Table 2 demonstrates that, indeed, learners of a second language immersed in the target speech community show variation in interlanguage production according to whether the person to whom they are speaking is a member of that community or whether that person is a fellow non-native speaker. The morphology of their interlanguage production is closer to the target when their interlocutor is a member of the target speech community, and further from the target when their interlocutor is, like themselves, a non-native speaker. Thus we may say with some degree of confidence that speakers of second languages, even when they are considerably less than fluent in the target language, nonetheless show sensitivity in their speech production to features of social context and interaction. The result also shows that the presence of a major social psychological force such as the shared ethnicity of subjects in the Beebe and Zuengler (1973) study is not a necessary condition for linguistic accommodation to the speech of interlocutors to occur, since most of

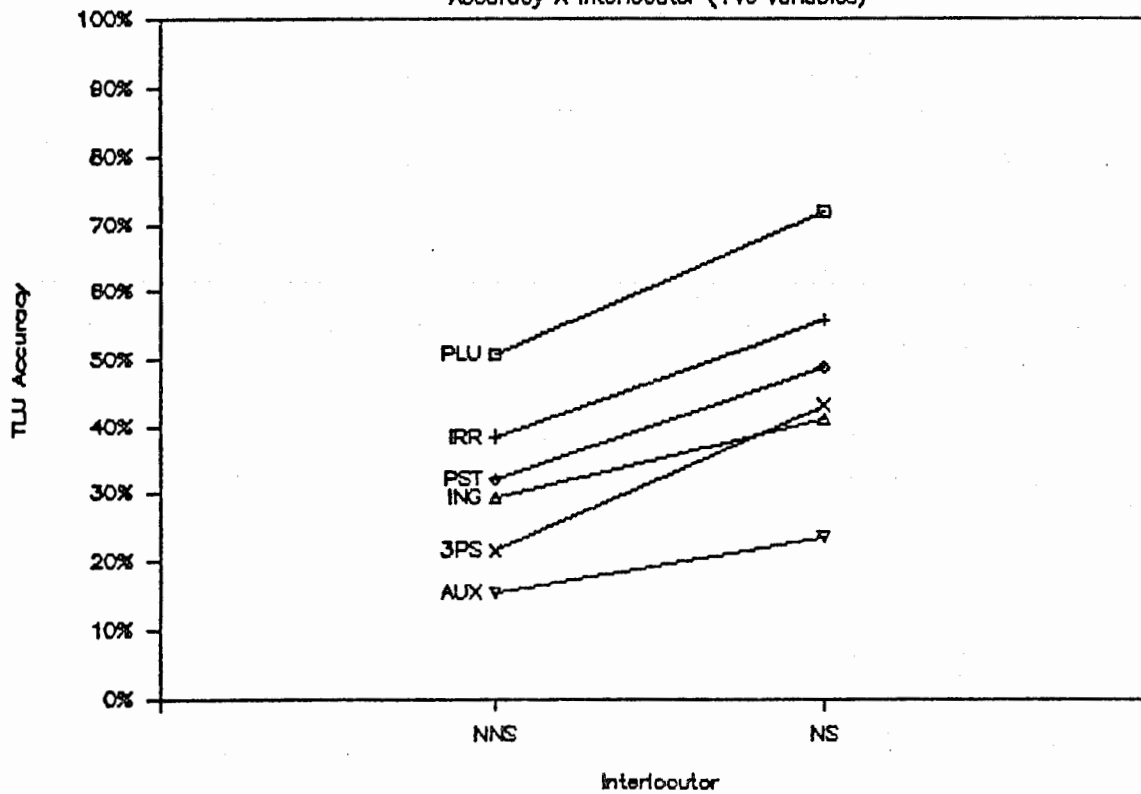
### Figure 1

Accuracy X Interlocutor (-ve variables)



### Figure 2

Accuracy X Interlocutor (+ve variables)





the NNS interlocutors in this study were not matched with subjects from the same ethnic or language background<sup>16</sup>.

Although there are considerable differences among individuals in the degree to which the accuracy of their speech is influenced by the presence of a NS interlocutor, the overall positive effect is an important one for understanding the conditions for second language acquisition, and seems also to provide support for Bickerton's (1984) view that the amount of contact between NSs and NNSs of European languages in the early stages of creole formation had a crucial effect on how far the creole morphosyntax diverged from that of the superstrate, and also Alleyne's (1971) view that creole continua originated in the social conditions of the early creole period in which some creole speakers had more contact with NSs of the superstrate than others.

It appears, too, that some degree of sociolinguistic competence is acquired by second language learners very early on in the course of second language acquisition. This competence may in some way reflect the Foreigner Talk competence of NSs since there are many ways in which speech used by NSs to foreigners is less 'target-like' than that used in comparable circumstances with other NSs. The question of how similar the variation is between standard and Foreigner Talk on the one hand, and between talk by NNSs to NSs and to other NNSs on the other is, however, an empirical one, and should not be prejudged. The only thing that can be taken for granted is that the unconscious ability to model one's speech on that of one's interlocutor seems to be a

fundamental part of human linguistic competence in the exercise and in the acquisition of language.

The second question of exactly what form morphological variation across interlocutor takes is less clear. Here too, individual differences are great, too great in fact for us to draw any firm conclusions about the effect of interlocutor on each of the individual morphemes. There are, however, enough similarities between the findings reported here and those reported by Tarone (1985) in her study of morphological variation across task, to allow us to draw some tentative conclusions. In both studies, the majority of morphemes vary in accuracy towards the target in more formal contexts of elicitation and in conversation with NSs, and this is indeed to be expected. What seems remarkable is that there are a number of morphemes--definite article, indefinite article, copula, and direct object pronoun--which appear to be less accurate in the same situations. There are a number of possible explanations for why this should be the case.

In the findings reported here, those three morphemes labelled as negative variables are to be found among the four morphemes whose overall accuracy scores are highest (all above 60% TLU accuracy). The effect may therefore be one in which when learners acquire relative mastery of a form, they begin to use that form to mark features of the sociolinguistic situation in a different way to the way in which it is unconsciously marked by phonological and other morphological variables. There seems to be no theoretical justification for such a switch, however, for neither theories of language acquisition, of

sociolinguistic variation, nor of accommodation to interlocutor predict such a reversal.

It should be noted that all the morphemes which behave as negative variables are free forms, and all but one of the morphemes which behave as positive variables are bound forms<sup>17</sup>. Another possible explanation for the anomalous behavior of the negative variables is that the greater amount of negotiation of meaning in KNS-NNS conversations in comparison with NS-NNS conversations found by Varonis and Gass (1985) produces a greater degree of accuracy of free morphemes.

A final possibility is that the acquisition of these negative variables, or indeed any morpheme, may not simply be a matter of a uniform increase in accuracy toward the target, but as Huebner (1983b) found for the free form da (marking various combinations of definiteness and specificity and deriving from target English the) in his subject's speech over a period of time, development away from the target at particular stages of development may reflect changes in the internal structure of the learner's interlanguage. Sankoff has also shown (Sankoff and Laberge 1973, Sankoff 1977) that reanalysis over time of free morphemes in the development of pidgins leads to a different functional assignment for the same form at different historical stages. If the kind of variation which is being observed in this study bears any similarity to development over time of interlanguage or of pidgin, then it is possible that what is happening to the negative variables is some form of functional realignment, such that movement is for the time being in a direction away from the

target.

Unfortunately, there can be no clear explanation for the anomalous behavior of the negative variables without further research. There remains the possibility, in any case, that such 'anomalous' behavior is merely random variation, and further studies need to be carried out to determine whether the phenomenon is a significant one and not simply a freak result.

In conclusion, this study has added to the growing body of research into variation in second language production by demonstrating that second language learners vary in how accurately they speak the target language according to whether their interlocutor is a native speaker of the target or is, like themselves, a non-native speaker. It has shown that sociolinguistic competence is an essential part of linguistic competence even during the early stages of acquisition of a second language. The acquisition of a second language over developmental time may, in many respects, mirror the variation across speech styles found in other studies and the variation across interlocutors found in the present study. The overall positive effect of a NS interlocutor on morphological variation in the speech of the second language learner may explain such phenomena as fossilization of interlanguage and of creoles when contact with NSs is removed, and may explain the variations found among the speech of immigrant workers and other acquirers which has previously been attributed to their social and psychological distance from the target language community (Meisel, Clahsen, and Pienemann 1981).

From this viewpoint, the acquisition of a verbal repertoire in a second language is coterminous with the acquisition of the second language itself. Whereas previously the acquisition of a second language has been seen as a process of unfolding of cognitive schemata, it may now be seen as a consequence of the nature of human language to both reflect and define situations of social interaction.

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1. The following quotation is representative of mainstream SLA concerns: "The question central to interlanguage research, and all language acquisition research, is 'How do acquirers internalize linguistic patterns of the target language?'" (Huebner 1983a: 33)

2. See the following section for a review.

3. The work of Beebe 1977, 1980, 1983, Beebe and Zuengler 1983, is a notable exception here.

4. There are others reported in the literature , e.g., Fairbanks 1982 cited in Tarone 1984, that I have been unable to examine at first hand.

5. In the Labovian paradigm which inspires much of this research, the independent variable is called speech style, and attention to speech is put forward as a latent trait underlying performance in different speech styles, thus "we find that styles can be ranged along a single dimension, measured by the amount of attention paid to speech." (Labov 1972a [1968]: 208)

6. Cf. Beebe 1983.

7. Such a situation may be found where two organic speech communities are in close and frequent intercourse, and where mutual attitudes towards stereotypical speech forms of the other community are strong and consistent.

8. The notation of round parentheses to enclose phonological variables is that proposed by Labov (1963).

9. Although Dickerson's results are suggestive, she does not test their significance by any of the accepted statistical methods, such as by ANOVA or t-test. In this respect she follows a similar omission in Labov (1966), and is followed in her turn by Gatbonton (1978), Schmidt (1977), and Tarone (1975). The imputed relationship between dependent and independent variables in the work of these researchers is based solely on the slope of a line in the graphic plots of their data.

10. Beebe's results were tested by means of a t-test and yielded significance levels of  $p < .02$  for initial (r), and  $p < .001$  for final (r).

11. Larsen-Freeman prefers to call them 'acquisition orders'.

12. The data compared here are Spearman rank-order correlation coefficients, which are significant at the  $p < .05$  level for only three out of the ten comparisons.

13. Again, the conclusions are drawn from the slope of lines in the graphic representation of Tarone's data, and not from any statistical measure of significance.

14. Levels of significance were measured on a t-test and ranged between  $p < .001$  and  $p < .02$ .

15. The native languages represented were: Japanese (2 subjects), Venezuelan Spanish, Italian, Brazilian Portuguese, and Libyan Arabic.

16. In one case a speaker of Mexican Spanish was paired with a Venezuelan subject, and in another case the Italian subject was paired with an Italian interlocutor, but in the four other NNS-NNS conversations, neither ethnicity nor first language was shared.

17. The one exception is the progressive auxiliary which with an 8.1% net increase in accuracy with a NS interlocutor has the weakest positive effect.

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